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SKM POWER*TOOLS FOR WINDOWS
LOAD FLOW AND VOLTAGE DROP ANALYSIS REPORT
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*** SOLUTION COMMENTS ***

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SOLUTION PARAMETERS

BRANCH VOLTAGE CRITERIA : 3.00 %

BUS VOLTAGE CRITERIA : 5.00 %

UTILITY IMPEDANCE : YES

TRANSFORMER PHASE SHIFT : NO

LTC TRANSFORMER : NO

CALCULATION NETHOD : Newton Method

SOLUTION METHOD : EXACT

ALL PU VALUES ARE EXPRESSED ON A 100 MVA BASE

LOAD FLOW IS BASED ON CONNECTED LOADS.

LOAD ANALYSIS INCLUDES ALL LOADS.

<<PERCENT VOLTAGE DROPS ARE BASED ON NOMINAL DESIGN VOLTAGES>>

SWING GENERATORS

SOURCE NAME VOLTAGE ANGLE

=====

WP&L Feeder 1.000 0.00

GEN-HP 1.000 0.00

PV GENERATORS

SOURCE NAME VOLTAGE kW KVARMIN KVARMAX PARTICIPATION

=====

BUS VOLTAGE CONVERGENCY CRITERIA: 0.00001000 PU

LARGEST BUS VOLTAGE MISMATCH BUS-0351 -0.11020952 PU

LARGEST BUS VOLTAGE MISMATCH BUS-0351 -0.00193030 PU

LARGEST BUS VOLTAGE MISMATCH BUS-0351 -0.00000076 PU

BALANCED VOLTAGE DROP AND LOAD FLOW ANALYSIS (SWING GENERATORS)

SOURCE	VOLTAGE	ANGLE	KW	KVAR	VD%	(UTILITY IMPEDANCE)
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WP&L Feeder	1.000	0.00	7624.02	3989.06	3.23	0.07653 +j 0.61223
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GEN-HP	1.000	0.00	30.15	19.25	3.56	8.00000 +j 160.00000
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BALANCED VOLTAGE DROP AND LOAD FLOW ANALYSIS (PV GENERATOR SCHEDULE REPORT)

---VOLTAGE--- -KVAR LIMITS- ---ACTUAL----

PV SOURCE NAME SCHED. ACTUAL MIN MAX KW KVAR

BALANCED VOLTAGE DROP AND LOAD FLOW ANALYSIS

VOLTAGE EFFECT ON LOADS MODELED

VOLTAGE DROP CRITERIA: BRANCH = 3.00% BUS = 5.00%

==== BUS: BUS-0021 DESIGN VOLTS: 208 BUS VOLTS: 197 %VD: 5.40 \$

===== PU BUS VOLTAGE: 0.946 ANGLE: -3.7 DEGREES

LOAD FROM: BUS-TDIS-0021 TDIS-0021 TRANSF AMPS: 423.8 VOLTAGE DROP: 4. %VD: 1.90

PROJECTED POWER FLOW: 130.0 KW 63.0 KVAR 144.4 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 1.3 KW 3.9 KVAR 4.1 KVA

BRANCH DIVERSITY LOAD: 130.0 KW 63.0 KVAR

==== BUS: BUS-0031 DESIGN VOLTS: 208 BUS VOLTS: 198 %VD: 4.77

===== PU BUS VOLTAGE: 0.952 ANGLE: -3.6 DEGREES

LOAD FROM: BUS-TDIS-0031P TDIS-0031 TRANSF AMPS: 343.3 VOLTAGE DROP: 3. %VD: 1.27

PROJECTED POWER FLOW: 106.0 KW 51.3 KVAR 117.8 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 0.5 KW 2.5 KVAR 2.5 KVA

BRANCH DIVERSITY LOAD: 106.0 KW 51.3 KVAR

==== BUS: BUS-0041 DESIGN VOLTS: 480 BUS VOLTS: 459 %VD: 4.28

===== PU BUS VOLTAGE: 0.957 ANGLE: -3.2 DEGREES

LOAD FROM: BUS-TDIS-0041P TDIS-0041 TRANSF AMPS: 290.4 VOLTAGE DROP: 4. %VD: 0.77

PROJECTED POWER FLOW: 208.0 KW 100.7 KVAR 231.1 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 0.5 KW 3.1 KVAR 3.1 KVA

BRANCH DIVERSITY LOAD: 208.0 KW 100.7 KVAR

==== BUS: BUS-0051 DESIGN VOLTS: 480 BUS VOLTS: 454 %VD: 5.42 \$

===== PU BUS VOLTAGE: 0.946 ANGLE: -4.1 DEGREES

LOAD FROM: BUS-TDIS-0051 TDIS-0051 TRANSF AMPS: 373.0 VOLTAGE DROP: 9. %VD: 1.91

PROJECTED POWER FLOW: 264.0 KW 127.9 KVAR 293.3 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 1.9 KW 9.4 KVAR 9.6 KVA

BRANCH DIVERSITY LOAD: 264.0 KW 127.9 KVAR

==== BUS: BUS-0071 DESIGN VOLTS: 208 BUS VOLTS: 193 %VD: 7.41 \$

===== PU BUS VOLTAGE: 0.926 ANGLE: -5.5 DEGREES

BALANCED VOLTAGE DROP AND LOAD FLOW ANALYSIS

VOLTAGE EFFECT ON LOADS MODELED

VOLTAGE DROP CRITERIA: BRANCH = 3.00% BUS = 5.00%

LOAD FROM: BUS-TDIS-0071P TDIS-0071 TRANSF AMPS: 1169.1 VOLTAGE DROP: 8. %VD: 4.06\$

PROJECTED POWER FLOW: 351.0 KW 170.0 KVAR 390.0 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 5.8 KW 26.0 KVAR 26.6 KVA

BRANCH DIVERSITY LOAD: 351.0 KW 170.0 KVAR

==== BUS: BUS-0072 DESIGN VOLTS: 480 BUS VOLTS: 452 %VD: 5.83 \$

===== PU BUS VOLTAGE: 0.942 ANGLE: -4.5 DEGREES

LOAD FROM: BUS-TDIS-0072P TDIS-0072 TRANSF AMPS: 420.1 VOLTAGE DROP: 12. %VD: 2.49

PROJECTED POWER FLOW: 296.0 KW 143.4 KVAR 328.9 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 2.9 KW 13.6 KVAR 13.9 KVA

BRANCH DIVERSITY LOAD: 296.0 KW 143.4 KVAR

==== BUS: BUS-0073 DESIGN VOLTS: 480 BUS VOLTS: 464 %VD: 3.35

===== PU BUS VOLTAGE: 0.967 ANGLE: -2.6 DEGREES

**** NO LOAD SPECIFIED ****

==== BUS: BUS-0081 DESIGN VOLTS: 208 BUS VOLTS: 196 %VD: 5.73 \$

===== PU BUS VOLTAGE: 0.943 ANGLE: -4.3 DEGREES

LOAD FROM: BUS-TDIS-0081P TDIS-0081 TRANSF AMPS: 1010.9 VOLTAGE DROP: 5. %VD: 2.28

PROJECTED POWER FLOW: 309.0 KW 149.7 KVAR 343.3 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 2.8 KW 13.0 KVAR 13.3 KVA

BRANCH DIVERSITY LOAD: 309.0 KW 149.7 KVAR

==== BUS: BUS-0100 DESIGN VOLTS: 12470 BUS VOLTS: 12054 %VD: 3.33

===== PU BUS VOLTAGE: 0.967 ANGLE: -2.6 DEGREES

LOAD FROM: PADS-0001 CABL-0201 FEEDER AMPS: 45.3 VOLTAGE DROP: 2. %VD: 0.02

PROJECTED POWER FLOW: 785.9 KW 524.8 KVAR 945.0 KVA 0.83 LAGGING

LOSSES THRU FEEDER: 0.2 KW 0.1 KVAR 0.2 KVA

BALANCED VOLTAGE DROP AND LOAD FLOW ANALYSIS

VOLTAGE EFFECT ON LOADS MODELED

VOLTAGE DROP CRITERIA: BRANCH = 3.00% BUS = 5.00%

LOAD TO: BUS-TDIS-0102P CABL-0201A FEEDER AMPS: 23.4 VOLTAGE DROP: 1. %VD: 0.00
PROJECTED POWER FLOW: 405.1 KW 272.9 KVAR 488.5 KVA 0.83 LAGGING
LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD TO: BUS-TDIS-0101P CABL-0201B FEEDER AMPS: 21.9 VOLTAGE DROP: 1. %VD: 0.00
PROJECTED POWER FLOW: 380.7 KW 251.9 KVAR 456.5 KVA 0.83 LAGGING
LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

==== BUS: BUS-0101 DESIGN VOLTS: 208 BUS VOLTS: 195 %VD: 6.08 \$
===== PU BUS VOLTAGE: 0.939 ANGLE: -4.3 DEGREES

LOAD FROM: BUS-TDIS-0101P TDIS-0101 TRANSF AMPS: 1310.8 VOLTAGE DROP: 6. %VD: 2.74

PROJECTED POWER FLOW: 377.0 KW 233.6 KVAR 443.5 KVA 0.85 LAGGING

LOSSES THRU TRANSF: 3.7 KW 18.2 KVAR 18.6 KVA

BRANCH DIVERSITY LOAD: 377.0 KW 233.6 KVAR

==== BUS: BUS-0102 DESIGN VOLTS: 480 BUS VOLTS: 447 %VD: 6.88 \$

===== PU BUS VOLTAGE: 0.931 ANGLE: -4.8 DEGREES

LOAD FROM: BUS-TDIS-0102P TDIS-0102 TRANSF AMPS: 607.8 VOLTAGE DROP: 17. %VD: 3.54\$

PROJECTED POWER FLOW: 400.0 KW 247.9 KVAR 470.6 KVA 0.85 LAGGING

LOSSES THRU TRANSF: 5.1 KW 25.0 KVAR 25.5 KVA

BRANCH DIVERSITY LOAD: 400.0 KW 247.9 KVAR

==== BUS: BUS-0111 DESIGN VOLTS: 480 BUS VOLTS: 456 %VD: 4.99

===== PU BUS VOLTAGE: 0.950 ANGLE: -3.8 DEGREES

LOAD FROM: BUS-TDIS-0111P TDIS-0111 TRANSF AMPS: 354.5 VOLTAGE DROP: 7. %VD: 1.51

PROJECTED POWER FLOW: 252.0 KW 122.0 KVAR 280.0 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 1.4 KW 7.1 KVAR 7.2 KVA

BRANCH DIVERSITY LOAD: 252.0 KW 122.0 KVAR

==== BUS: BUS-0113 DESIGN VOLTS: 208 BUS VOLTS: 198 %VD: 4.93

===== PU BUS VOLTAGE: 0.951 ANGLE: -3.7 DEGREES

BALANCED VOLTAGE DROP AND LOAD FLOW ANALYSIS

VOLTAGE EFFECT ON LOADS MODELED

VOLTAGE DROP CRITERIA: BRANCH = 3.00% BUS = 5.00%

LOAD FROM: BUS-TDIS-0112P TDIS-0112 TRANSF AMPS: 652.1 VOLTAGE DROP: 3. %VD: 1.44

PROJECTED POWER FLOW: 201.0 KW 97.3 KVAR 223.3 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 1.1 KW 5.4 KVAR 5.5 KVA

BRANCH DIVERSITY LOAD: 201.0 KW 97.3 KVAR

==== BUS: BUS-0114 DESIGN VOLTS: 480 BUS VOLTS: 457 %VD: 4.81

===== PU BUS VOLTAGE: 0.952 ANGLE: -3.6 DEGREES

LOAD FROM: BUS-TDIS-0113P TDIS-0113 TRANSF AMPS: 421.2 VOLTAGE DROP: 6. %VD: 1.32

PROJECTED POWER FLOW: 300.0 KW 145.3 KVAR 333.3 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 1.6 KW 7.3 KVAR 7.4 KVA

BRANCH DIVERSITY LOAD: 300.0 KW 145.3 KVAR

==== BUS: BUS-0115 DESIGN VOLTS: 480 BUS VOLTS: 0 %VD: 100.00 \$

===== PU BUS VOLTAGE: 0.000 ANGLE: 0.0 DEGREES

**** NO LOAD SPECIFIED ****

==== BUS: BUS-0121 DESIGN VOLTS: 480 BUS VOLTS: 459 %VD: 4.45

===== PU BUS VOLTAGE: 0.955 ANGLE: -3.4 DEGREES

LOAD FROM: BUS-TDIS-0121P TDIS-0121 TRANSF AMPS: 295.1 VOLTAGE DROP: 5. %VD: 1.00

PROJECTED POWER FLOW: 211.0 KW 102.2 KVAR 234.4 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 0.8 KW 3.9 KVAR 4.0 KVA

BRANCH DIVERSITY LOAD: 211.0 KW 102.2 KVAR

==== BUS: BUS-0125 DESIGN VOLTS: 480 BUS VOLTS: 0 %VD: 100.00 \$

===== PU BUS VOLTAGE: 0.000 ANGLE: 0.0 DEGREES

**** NO LOAD SPECIFIED ****

==== BUS: BUS-0141 DESIGN VOLTS: 480 BUS VOLTS: 448 %VD: 6.62 \$

===== PU BUS VOLTAGE: 0.934 ANGLE: -4.7 DEGREES

BALANCED VOLTAGE DROP AND LOAD FLOW ANALYSIS

VOLTAGE EFFECT ON LOADS MODELED

VOLTAGE DROP CRITERIA: BRANCH = 3.00% BUS = 5.00%

LOAD FROM: BUS-TDIS-0141P TDIS-0141 TRANSF AMPS: 1019.9 VOLTAGE DROP: 16. %VD: 3.32\$

PROJECTED POWER FLOW: 673.0 KW 417.1 KVAR 791.8 KVA 0.85 LAGGING

LOSSES THRU TRANSF: 7.2 KW 40.7 KVAR 41.3 KVA

BRANCH DIVERSITY LOAD: 673.0 KW 417.1 KVAR

==== BUS: BUS-0142 DESIGN VOLTS: 480 BUS VOLTS: 0 %VD: 100.00 \$

===== PU BUS VOLTAGE: 0.000 ANGLE: 0.0 DEGREES

**** NO LOAD SPECIFIED ****

==== BUS: BUS-0331 DESIGN VOLTS: 480 BUS VOLTS: 445 %VD: 7.37 \$

===== PU BUS VOLTAGE: 0.926 ANGLE: -5.0 DEGREES

LOAD FROM: BUS-TDIS-0331P TDIS-0331 TRANSF AMPS: 499.8 VOLTAGE DROP: 19. %VD: 3.92\$

PROJECTED POWER FLOW: 330.1 KW 197.9 KVAR 384.9 KVA 0.86 LAGGING

LOSSES THRU TRANSF: 4.9 KW 22.9 KVAR 23.4 KVA

BRANCH DIVERSITY LOAD: 330.1 KW 197.9 KVAR

==== BUS: BUS-0341 DESIGN VOLTS: 208 BUS VOLTS: 190 %VD: 8.67 \$

===== PU BUS VOLTAGE: 0.913 ANGLE: -6.2 DEGREES

LOAD FROM: BUS-TDIS-0341P TDIS-0341 TRANSF AMPS: 1996.9 VOLTAGE DROP: 11. %VD: 5.28\$

PROJECTED POWER FLOW: 591.3 KW 286.4 KVAR 657.0 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 13.6 KW 55.8 KVAR 57.4 KVA

BRANCH DIVERSITY LOAD: 591.3 KW 286.4 KVAR

==== BUS: BUS-0351 DESIGN VOLTS: 208 BUS VOLTS: 187 %VD: 10.32 \$

===== PU BUS VOLTAGE: 0.897 ANGLE: -6.9 DEGREES

LOAD FROM: BUS-TDIS-0351P TDIS-0351 TRANSF AMPS: 753.2 VOLTAGE DROP: 14. %VD: 6.93\$

PROJECTED POWER FLOW: 219.0 KW 106.1 KVAR 243.3 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 7.6 KW 25.7 KVAR 26.8 KVA

BRANCH DIVERSITY LOAD: 219.0 KW 106.1 KVAR

==== BUS: BUS-0371 DESIGN VOLTS: 208 BUS VOLTS: 193 %VD: 7.38 \$

===== PU BUS VOLTAGE: 0.926 ANGLE: -5.1 DEGREES

BALANCED VOLTAGE DROP AND LOAD FLOW ANALYSIS

VOLTAGE EFFECT ON LOADS MODELED

VOLTAGE DROP CRITERIA: BRANCH = 3.00% BUS = 5.00%

LOAD FROM: BUS-TDIS-0371P TDIS-0371 TRANSF AMPS: 472.8 VOLTAGE DROP: 8. %VD: 3.89\$

PROJECTED POWER FLOW: 142.0 KW 68.8 KVAR 157.8 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 2.6 KW 9.4 KVAR 9.8 KVA

BRANCH DIVERSITY LOAD: 142.0 KW 68.8 KVAR

==== BUS: BUS-0391 DESIGN VOLTS: 208 BUS VOLTS: 196 %VD: 5.94 \$

===== PU BUS VOLTAGE: 0.941 ANGLE: -3.9 DEGREES

LOAD FROM: BUS-TDIS-0391P TDIS-0391 TRANSF AMPS: 393.5 VOLTAGE DROP: 5. %VD: 2.45

PROJECTED POWER FLOW: 120.0 KW 58.1 KVAR 133.3 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 1.7 KW 4.3 KVAR 4.6 KVA

BRANCH DIVERSITY LOAD: 120.0 KW 58.1 KVAR

==== BUS: BUS-0411 DESIGN VOLTS: 208 BUS VOLTS: 193 %VD: 7.14 \$

===== PU BUS VOLTAGE: 0.929 ANGLE: -5.0 DEGREES

LOAD FROM: BUS-TDIS-0411P TDIS-0411 TRANSF AMPS: 408.5 VOLTAGE DROP: 8. %VD: 3.66\$

PROJECTED POWER FLOW: 123.0 KW 59.6 KVAR 136.7 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 2.1 KW 7.7 KVAR 7.9 KVA

BRANCH DIVERSITY LOAD: 123.0 KW 59.6 KVAR

==== BUS: BUS-0421 DESIGN VOLTS: 208 BUS VOLTS: 197 %VD: 5.51 \$

===== PU BUS VOLTAGE: 0.945 ANGLE: -3.9 DEGREES

LOAD FROM: BUS-TDIS-0421S CABL-HUG_208 FEEDER AMPS: 404.7 VOLTAGE DROP: 1. %VD: 0.25

PROJECTED POWER FLOW: 124.0 KW 60.1 KVAR 137.8 KVA 0.90 LAGGING

LOSSES THRU FEEDER: 0.3 KW 0.3 KVAR 0.4 KVA

BRANCH DIVERSITY LOAD: 124.0 KW 60.1 KVAR

==== BUS: BUS-0441 DESIGN VOLTS: 208 BUS VOLTS: 197 %VD: 5.16 \$

===== PU BUS VOLTAGE: 0.948 ANGLE: -3.7 DEGREES

BALANCED VOLTAGE DROP AND LOAD FLOW ANALYSIS

VOLTAGE EFFECT ON LOADS MODELED

VOLTAGE DROP CRITERIA: BRANCH = 3.00% BUS = 5.00%

LOAD FROM: BUS-TDIS-0441P TDIS-0441 TRANSF AMPS: 429.3 VOLTAGE DROP: 3. %VD: 1.65

PROJECTED POWER FLOW: 132.0 KW 63.9 KVAR 146.7 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 1.0 KW 3.8 KVAR 3.9 KVA

BRANCH DIVERSITY LOAD: 132.0 KW 63.9 KVAR

==== BUS: BUS-0451 DESIGN VOLTS: 480 BUS VOLTS: 456 %VD: 4.90

===== PU BUS VOLTAGE: 0.951 ANGLE: -3.8 DEGREES

LOAD FROM: BUS-TDIS-0451P TDIS-0451 TRANSF AMPS: 468.0 VOLTAGE DROP: 8. %VD: 1.60

PROJECTED POWER FLOW: 333.0 KW 161.3 KVAR 370.0 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 2.0 KW 9.9 KVAR 10.1 KVA

BRANCH DIVERSITY LOAD: 333.0 KW 161.3 KVAR

==== BUS: BUS-0452 DESIGN VOLTS: 480 BUS VOLTS: 0 %VD: 100.00 \$

===== PU BUS VOLTAGE: 0.000 ANGLE: 0.0 DEGREES

**** NO LOAD SPECIFIED ****

==== BUS: BUS-0611_MDPH DESIGN VOLTS: 480 BUS VOLTS: 457 %VD: 4.85

===== PU BUS VOLTAGE: 0.952 ANGLE: -3.7 DEGREES

LOAD FROM: SA-0611 TDIS-0611 TRANSF AMPS: 421.4 VOLTAGE DROP: 7. %VD: 1.44

PROJECTED POWER FLOW: 300.0 KW 145.3 KVAR 333.3 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 1.6 KW 8.0 KVAR 8.2 KVA

BRANCH DIVERSITY LOAD: 300.0 KW 145.3 KVAR

==== BUS: BUS-0612_MDPL DESIGN VOLTS: 208 BUS VOLTS: 199 %VD: 4.39

===== PU BUS VOLTAGE: 0.956 ANGLE: -3.3 DEGREES

LOAD FROM: SA-0611 TDIS-0612 TRANSF AMPS: 664.5 VOLTAGE DROP: 2. %VD: 0.98

PROJECTED POWER FLOW: 206.0 KW 99.8 KVAR 228.9 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 0.8 KW 3.7 KVAR 3.8 KVA

BRANCH DIVERSITY LOAD: 206.0 KW 99.8 KVAR

==== BUS: BUS-0911 DESIGN VOLTS: 480 BUS VOLTS: 462 %VD: 3.78

===== PU BUS VOLTAGE: 0.962 ANGLE: -2.8 DEGREES

BALANCED VOLTAGE DROP AND LOAD FLOW ANALYSIS

VOLTAGE EFFECT ON LOADS MODELED

VOLTAGE DROP CRITERIA: BRANCH = 3.00% BUS = 5.00%

LOAD FROM: BUS-GEN-HP CBL-GEN-HP FEEDER AMPS: 44.6 VOLTAGE DROP: 1. %VD: 0.22
PROJECTED POWER FLOW: 30.1 KW 19.2 KVAR 35.7 KVA 0.84 LAGGING
LOSSES THRU FEEDER: 0.1 KW 0.0 KVAR 0.1 KVA

LOAD FROM: BUS-TDIS-0911P TDIS-0911 TRANSF AMPS: 38.5 VOLTAGE DROP: 2. %VD: 0.49
PROJECTED POWER FLOW: 22.9 KW 20.5 KVAR 30.8 KVA 0.74 LAGGING
LOSSES THRU TRANSF: 0.1 KW 0.2 KVAR 0.2 KVA

BRANCH DIVERSITY LOAD: 53.0 KW 39.8 KVAR

==== BUS: BUS-091MAIN DESIGN VOLTS: 12470 BUS VOLTS: 12059 %VD: 3.29

===== PU BUS VOLTAGE: 0.967 ANGLE: -2.6 DEGREES

LOAD FROM: BUS-WP&L CABL-UTIL-0100 FEEDER AMPS: 411.7 VOLTAGE DROP: 8. %VD: 0.06

PROJECTED POWER FLOW: 7619.4 KW 3985.5 KVAR 8598.8 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 4.6 KW 3.6 KVAR 5.8 KVA

LOAD TO: PADS-0007 CABL-0100 FEEDER AMPS: 111.7 VOLTAGE DROP: 12. %VD: 0.09

PROJECTED POWER FLOW: 2030.8 KW 1146.6 KVAR 2332.1 KVA 0.87 LAGGING

LOSSES THRU FEEDER: 1.9 KW 1.2 KVAR 2.2 KVA

LOAD TO: PADS-0001 CABL-0200 FEEDER AMPS: 93.3 VOLTAGE DROP: 3. %VD: 0.02

PROJECTED POWER FLOW: 1694.6 KW 962.6 KVAR 1948.9 KVA 0.87 LAGGING

LOSSES THRU FEEDER: 0.4 KW 0.2 KVAR 0.4 KVA

LOAD TO: PADS-0006 CABL-0300 FEEDER AMPS: 123.3 VOLTAGE DROP: 6. %VD: 0.05

PROJECTED POWER FLOW: 2285.8 KW 1187.9 KVAR 2576.0 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 1.0 KW 0.6 KVAR 1.2 KVA

LOAD TO: PADS-0012 CABL-0400 FEEDER AMPS: 88.4 VOLTAGE DROP: 1. %VD: 0.00

PROJECTED POWER FLOW: 1585.3 KW 948.2 KVAR 1847.2 KVA 0.86 LAGGING

LOSSES THRU FEEDER: 0.1 KW 0.0 KVAR 0.1 KVA

LOAD TO: BUS-TDIS-0911P CABL-0500 FEEDER AMPS: 12.5 VOLTAGE DROP: 0. %VD: 0.00

PROJECTED POWER FLOW: 23.0 KW -259.9 KVAR 260.9 KVA 0.09 LEADING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

==== BUS: BUS-0941 DESIGN VOLTS: 480 BUS VOLTS: 452 %VD: 5.91 \$

===== PU BUS VOLTAGE: 0.941 ANGLE: -4.5 DEGREES

BALANCED VOLTAGE DROP AND LOAD FLOW ANALYSIS

VOLTAGE EFFECT ON LOADS MODELED

VOLTAGE DROP CRITERIA: BRANCH = 3.00% BUS = 5.00%

LOAD FROM: BUS-TDIS-0941 TDIS-0941 TRANSF AMPS: 846.6 VOLTAGE DROP: 11. %VD: 2.38

PROJECTED POWER FLOW: 596.0 KW 288.7 KVAR 662.2 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 4.8 KW 27.6 KVAR 28.0 KVA

BRANCH DIVERSITY LOAD: 596.0 KW 288.7 KVAR

==== BUS: BUS-0951 DESIGN VOLTS: 208 BUS VOLTS: 198 %VD: 4.65

===== PU BUS VOLTAGE: 0.954 ANGLE: -3.4 DEGREES

LOAD FROM: BUS-TDIS-0951P TDIS-0951 TRANSF AMPS: 342.9 VOLTAGE DROP: 2. %VD: 1.16

PROJECTED POWER FLOW: 106.0 KW 51.3 KVAR 117.8 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 0.5 KW 2.2 KVAR 2.2 KVA

BRANCH DIVERSITY LOAD: 106.0 KW 51.3 KVAR

==== BUS: BUS-0952 DESIGN VOLTS: 208 BUS VOLTS: 0 %VD: 100.00 \$

===== PU BUS VOLTAGE: 0.000 ANGLE: 0.0 DEGREES

**** NO LOAD SPECIFIED ****

==== BUS: BUS-GEN-HP DESIGN VOLTS: 480 BUS VOLTS: 463 %VD: 3.56

===== PU BUS VOLTAGE: 0.964 ANGLE: -2.8 DEGREES

*** PV TYPE GENERATOR:GEN-HP 30.15 KW 19.25 KVAR

LOAD TO: BUS-0911 CBL-GEN-HP FEEDER AMPS: 44.6 VOLTAGE DROP: 1. %VD: 0.22

PROJECTED POWER FLOW: 30.1 KW 19.2 KVAR 35.8 KVA 0.84 LAGGING

LOSSES THRU FEEDER: 0.1 KW 0.0 KVAR 0.1 KVA

==== BUS: BUS-SG-4TAP DESIGN VOLTS: 12470 BUS VOLTS: 12033 %VD: 3.51

===== PU BUS VOLTAGE: 0.965 ANGLE: -2.6 DEGREES

LOAD FROM: BUS-TDIS-0041P CABL-0308 FEEDER AMPS: 11.2 VOLTAGE DROP: 1. %VD: 0.00

PROJECTED POWER FLOW: -208.6 KW -103.8 KVAR 233.0 KVA 0.90 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

BALANCED VOLTAGE DROP AND LOAD FLOW ANALYSIS

VOLTAGE EFFECT ON LOADS MODELED

VOLTAGE DROP CRITERIA: BRANCH = 3.00% BUS = 5.00%

LOAD TO: PADS-0004 CABL-0308A FEEDER AMPS: 16.9 VOLTAGE DROP: 0. %VD: 0.00

PROJECTED POWER FLOW: -315.1 KW -157.7 KVAR 352.3 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD FROM: BUS-TDIS-0031P CABL-0313 FEEDER AMPS: 5.7 VOLTAGE DROP: 0. %VD: 0.00

PROJECTED POWER FLOW: -106.5 KW -53.8 KVAR 119.3 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

==== BUS: BUS-TDIS-0421S DESIGN VOLTS: 208 BUS VOLTS: 197 %VD: 5.26 \$

===== PU BUS VOLTAGE: 0.947 ANGLE: -3.8 DEGREES

LOAD TO: BUS-0421 CABL-HUG_208 FEEDER AMPS: 404.7 VOLTAGE DROP: 1. %VD: 0.25

PROJECTED POWER FLOW: 124.3 KW 60.3 KVAR 138.1 KVA 0.90 LAGGING

LOSSES THRU FEEDER: 0.3 KW 0.3 KVAR 0.4 KVA

LOAD FROM: BUS-TDIS-0421P TDIS-0421 TRANSF AMPS: 404.7 VOLTAGE DROP: 4. %VD: 1.76

PROJECTED POWER FLOW: 124.3 KW 60.3 KVAR 138.1 KVA 0.90 LAGGING

LOSSES THRU TRANSF: 1.0 KW 3.8 KVAR 3.9 KVA

==== BUS: PADS-0001 DESIGN VOLTS: 12470 BUS VOLTS: 12057 %VD: 3.31

===== PU BUS VOLTAGE: 0.967 ANGLE: -2.6 DEGREES

LOAD FROM: BUS-091MAIN CABL-0200 FEEDER AMPS: 93.3 VOLTAGE DROP: 3. %VD: 0.02

PROJECTED POWER FLOW: 1694.2 KW 962.4 KVAR 1948.5 KVA 0.87 LAGGING

LOSSES THRU FEEDER: 0.4 KW 0.2 KVAR 0.4 KVA

LOAD FROM: PADS-0002 CABL-0202 FEEDER AMPS: 79.5 VOLTAGE DROP: 16. %VD: 0.13

PROJECTED POWER FLOW: -1478.0 KW -756.6 KVAR 1660.4 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 1.9 KW 1.1 KVAR 2.2 KVA

LOAD TO: BUS-0100 CABL-0201 FEEDER AMPS: 45.3 VOLTAGE DROP: 2. %VD: 0.02

PROJECTED POWER FLOW: 786.0 KW 524.9 KVAR 945.2 KVA 0.83 LAGGING

LOSSES THRU FEEDER: 0.2 KW 0.1 KVAR 0.2 KVA

BALANCED VOLTAGE DROP AND LOAD FLOW ANALYSIS

VOLTAGE EFFECT ON LOADS MODELED

VOLTAGE DROP CRITERIA: BRANCH = 3.00% BUS = 5.00%

LOAD TO: PADS-0012 CABL-0207 FEEDER AMPS: 31.3 VOLTAGE DROP: 2. %VD: 0.02
PROJECTED POWER FLOW: -569.8 KW -319.1 KVAR 653.1 KVA 0.87 LAGGING
LOSSES THRU FEEDER: 0.1 KW 0.1 KVAR 0.1 KVA

==== BUS: PADS-0002 DESIGN VOLTS: 12470 BUS VOLTS: 12041 %VD: 3.44

===== PU BUS VOLTAGE: 0.966 ANGLE: -2.6 DEGREES

LOAD TO: PADS-0001 CABL-0202 FEEDER AMPS: 79.5 VOLTAGE DROP: 16. %VD: 0.13
PROJECTED POWER FLOW: -1476.1 KW -755.5 KVAR 1658.2 KVA 0.89 LAGGING
LOSSES THRU FEEDER: 1.9 KW 1.1 KVAR 2.2 KVA

LOAD TO: BUS-TDIS-0081P CABL-0203 FEEDER AMPS: 16.9 VOLTAGE DROP: 1. %VD: 0.01

PROJECTED POWER FLOW: 311.8 KW 162.6 KVAR 351.7 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD TO: BUS-TDIS-0121P CABL-0204 FEEDER AMPS: 11.4 VOLTAGE DROP: 1. %VD: 0.01

PROJECTED POWER FLOW: 211.8 KW 106.1 KVAR 236.9 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD FROM: PADS-0003 CABL-0205 FEEDER AMPS: 51.3 VOLTAGE DROP: 8. %VD: 0.06

PROJECTED POWER FLOW: -952.5 KW -486.7 KVAR 1069.7 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.6 KW 0.4 KVAR 0.7 KVA

==== BUS: PADS-0003 DESIGN VOLTS: 12470 BUS VOLTS: 12033 %VD: 3.50

===== PU BUS VOLTAGE: 0.965 ANGLE: -2.6 DEGREES

LOAD FROM: PADS-0004 CABL-0208 FEEDER AMPS: 29.9 VOLTAGE DROP: 0. %VD: 0.00

PROJECTED POWER FLOW: -554.7 KW -282.2 KVAR 622.4 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD TO: BUS-TDIS-0021 CABL-0206 FEEDER AMPS: 7.1 VOLTAGE DROP: 0. %VD: 0.00

PROJECTED POWER FLOW: 131.3 KW 66.8 KVAR 147.3 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

BALANCED VOLTAGE DROP AND LOAD FLOW ANALYSIS

VOLTAGE EFFECT ON LOADS MODELED

VOLTAGE DROP CRITERIA: BRANCH = 3.00% BUS = 5.00%

LOAD TO: BUS-TDIS-0051 CABL-DOUD FEEDER AMPS: 14.4 VOLTAGE DROP: 0. %VD: 0.00
PROJECTED POWER FLOW: 265.9 KW 137.3 KVAR 299.3 KVA 0.89 LAGGING
LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD TO: PADS-0002 CABL-0205 FEEDER AMPS: 51.3 VOLTAGE DROP: 8. %VD: 0.06
PROJECTED POWER FLOW: -951.9 KW -486.3 KVAR 1069.0 KVA 0.89 LAGGING
LOSSES THRU FEEDER: 0.6 KW 0.4 KVAR 0.7 KVA

==== BUS: PADS-0004 DESIGN VOLTS: 12470 BUS VOLTS: 12033 %VD: 3.51
===== PU BUS VOLTAGE: 0.965 ANGLE: -2.6 DEGREES

LOAD TO: PADS-0003 CABL-0208 FEEDER AMPS: 29.9 VOLTAGE DROP: 0. %VD: 0.00

PROJECTED POWER FLOW: -554.7 KW -282.2 KVAR 622.3 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD TO: MH-0037SPL CABL-0310 FEEDER AMPS: 19.6 VOLTAGE DROP: 1. %VD: 0.01

PROJECTED POWER FLOW: -361.4 KW -191.8 KVAR 409.1 KVA 0.88 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD FROM: PADS-0004A CABL-0307 FEEDER AMPS: 32.6 VOLTAGE DROP: 2. %VD: 0.02

PROJECTED POWER FLOW: -601.0 KW -316.4 KVAR 679.2 KVA 0.88 LAGGING

LOSSES THRU FEEDER: 0.1 KW 0.1 KVAR 0.1 KVA

LOAD FROM: BUS-SG-4TAP CABL-0308A FEEDER AMPS: 16.9 VOLTAGE DROP: 0. %VD: 0.00

PROJECTED POWER FLOW: -315.1 KW -157.7 KVAR 352.3 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

==== BUS: PADS-0004A DESIGN VOLTS: 12470 BUS VOLTS: 12031 %VD: 3.52

===== PU BUS VOLTAGE: 0.965 ANGLE: -2.6 DEGREES

LOAD TO: PADS-0004 CABL-0307 FEEDER AMPS: 32.6 VOLTAGE DROP: 2. %VD: 0.02

PROJECTED POWER FLOW: -600.9 KW -316.3 KVAR 679.0 KVA 0.88 LAGGING

LOSSES THRU FEEDER: 0.1 KW 0.1 KVAR 0.1 KVA

BALANCED VOLTAGE DROP AND LOAD FLOW ANALYSIS

VOLTAGE EFFECT ON LOADS MODELED

VOLTAGE DROP CRITERIA: BRANCH = 3.00% BUS = 5.00%

LOAD FROM: BUS-TDIS-0941 CABL-0312 FEEDER AMPS: 32.6 VOLTAGE DROP: 1. %VD: 0.01
PROJECTED POWER FLOW: -600.9 KW -316.3 KVAR 679.0 KVA 0.88 LAGGING
LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

==== BUS: PADS-0005 DESIGN VOLTS: 12470 BUS VOLTS: 12036 %VD: 3.48

===== PU BUS VOLTAGE: 0.965 ANGLE: -2.6 DEGREES

LOAD TO: MH-0011SPL CABL-0311 FEEDER AMPS: 60.4 VOLTAGE DROP: 3. %VD: 0.02
PROJECTED POWER FLOW: -1118.6 KW -576.4 KVAR 1258.4 KVA 0.89 LAGGING
LOSSES THRU FEEDER: 0.3 KW 0.2 KVAR 0.3 KVA

LOAD TO: MH-0037SPL CABL-0306 FEEDER AMPS: 19.6 VOLTAGE DROP: 2. %VD: 0.02

PROJECTED POWER FLOW: 361.5 KW 191.9 KVAR 409.2 KVA 0.88 LAGGING

LOSSES THRU FEEDER: 0.1 KW 0.0 KVAR 0.1 KVA

LOAD FROM: BUS-TDIS-0111P demo CABL-0305 FEEDER AMPS: 13.6 VOLTAGE DROP: 1. %VD: 0.00

PROJECTED POWER FLOW: -253.5 KW -129.1 KVAR 284.5 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD FROM: PADS-0013 CABL-030X FEEDER AMPS: 27.1 VOLTAGE DROP: 1. %VD: 0.01

PROJECTED POWER FLOW: -503.7 KW -255.4 KVAR 564.7 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

==== BUS: PADS-0006 DESIGN VOLTS: 12470 BUS VOLTS: 12054 %VD: 3.34

===== PU BUS VOLTAGE: 0.967 ANGLE: -2.6 DEGREES

LOAD TO: MH-0006SPL CABL-0309 FEEDER AMPS: 87.7 VOLTAGE DROP: 7. %VD: 0.05

PROJECTED POWER FLOW: 1629.0 KW 834.4 KVAR 1830.2 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.9 KW 0.5 KVAR 1.0 KVA

LOAD FROM: BUS-091MAIN CABL-0300 FEEDER AMPS: 123.3 VOLTAGE DROP: 6. %VD: 0.05

PROJECTED POWER FLOW: 2284.7 KW 1187.3 KVAR 2574.8 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 1.0 KW 0.6 KVAR 1.2 KVA

BALANCED VOLTAGE DROP AND LOAD FLOW ANALYSIS

VOLTAGE EFFECT ON LOADS MODELED

VOLTAGE DROP CRITERIA: BRANCH = 3.00% BUS = 5.00%

LOAD FROM: BUS-TDIS-0072P CABL-0302 FEEDER AMPS: 16.2 VOLTAGE DROP: 1. %VD: 0.01
PROJECTED POWER FLOW: -298.9 KW -156.9 KVAR 337.6 KVA 0.89 LAGGING
LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD FROM: BUS-TDIS-0071P CABL-0301 FEEDER AMPS: 19.5 VOLTAGE DROP: 1. %VD: 0.01
PROJECTED POWER FLOW: -356.9 KW -196.0 KVAR 407.1 KVA 0.88 LAGGING
LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

==== BUS: PADS-0007 DESIGN VOLTS: 12470 BUS VOLTS: 12048 %VD: 3.38
===== PU BUS VOLTAGE: 0.966 ANGLE: -2.6 DEGREES

LOAD FROM: BUS-091MAIN CABL-0100 FEEDER AMPS: 111.7 VOLTAGE DROP: 12. %VD: 0.09

PROJECTED POWER FLOW: 2028.9 KW 1145.4 KVAR 2329.9 KVA 0.87 LAGGING

LOSSES THRU FEEDER: 1.9 KW 1.2 KVAR 2.2 KVA

LOAD TO: BUS-TDIS-0341P CABL-0102 FEEDER AMPS: 33.3 VOLTAGE DROP: 1. %VD: 0.01

PROJECTED POWER FLOW: 605.0 KW 342.2 KVAR 695.0 KVA 0.87 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD TO: BUS-TDIS-0351P CABL-0101 FEEDER AMPS: 12.6 VOLTAGE DROP: 1. %VD: 0.01

PROJECTED POWER FLOW: 226.6 KW 131.8 KVAR 262.2 KVA 0.86 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD TO: PADS-0008 CABL-0103 FEEDER AMPS: 65.8 VOLTAGE DROP: 6. %VD: 0.05

PROJECTED POWER FLOW: 1197.3 KW 671.4 KVAR 1372.7 KVA 0.87 LAGGING

LOSSES THRU FEEDER: 0.6 KW 0.4 KVAR 0.7 KVA

==== BUS: PADS-0008 DESIGN VOLTS: 12470 BUS VOLTS: 12042 %VD: 3.43

===== PU BUS VOLTAGE: 0.966 ANGLE: -2.6 DEGREES

LOAD FROM: PADS-0009 CABL-0106 FEEDER AMPS: 40.9 VOLTAGE DROP: 6. %VD: 0.05

PROJECTED POWER FLOW: -756.7 KW -393.4 KVAR 852.9 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.4 KW 0.2 KVAR 0.5 KVA

BALANCED VOLTAGE DROP AND LOAD FLOW ANALYSIS

VOLTAGE EFFECT ON LOADS MODELED

VOLTAGE DROP CRITERIA: BRANCH = 3.00% BUS = 5.00%

LOAD TO: BUS-TDIS-0331P CABL-0104 FEEDER AMPS: 19.2 VOLTAGE DROP: 1. %VD: 0.01
PROJECTED POWER FLOW: 335.0 KW 220.8 KVAR 401.2 KVA 0.83 LAGGING
LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD TO: BUS-TDIS-0361P CABL-0105 FEEDER AMPS: 5.7 VOLTAGE DROP: 0. %VD: 0.00
PROJECTED POWER FLOW: 105.0 KW 56.8 KVAR 119.4 KVA 0.88 LAGGING
LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD FROM: PADS-0007 CABL-0103 FEEDER AMPS: 65.8 VOLTAGE DROP: 6. %VD: 0.05
PROJECTED POWER FLOW: 1196.8 KW 671.0 KVAR 1372.0 KVA 0.87 LAGGING
LOSSES THRU FEEDER: 0.6 KW 0.4 KVAR 0.7 KVA

==== BUS: PADS-0009 DESIGN VOLTS: 12470 BUS VOLTS: 12035 %VD: 3.49

===== PU BUS VOLTAGE: 0.965 ANGLE: -2.6 DEGREES

LOAD TO: PADS-0008 CABL-0106 FEEDER AMPS: 40.9 VOLTAGE DROP: 6. %VD: 0.05

PROJECTED POWER FLOW: -756.3 KW -393.2 KVAR 852.4 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.4 KW 0.2 KVAR 0.5 KVA

LOAD TO: PADS-0010 CABL-0109 FEEDER AMPS: 26.4 VOLTAGE DROP: 0. %VD: 0.00

PROJECTED POWER FLOW: 489.9 KW 252.6 KVAR 551.2 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD FROM: BUS-TDIS-0371P CABL-0107 FEEDER AMPS: 7.9 VOLTAGE DROP: 0. %VD: 0.00

PROJECTED POWER FLOW: -144.6 KW -78.2 KVAR 164.4 KVA 0.88 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD FROM: BUS-TDIS-0391P CABL-0108 FEEDER AMPS: 6.6 VOLTAGE DROP: 0. %VD: 0.00

PROJECTED POWER FLOW: -121.7 KW -62.4 KVAR 136.8 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

==== BUS: PADS-0010 DESIGN VOLTS: 12470 BUS VOLTS: 12035 %VD: 3.49

===== PU BUS VOLTAGE: 0.965 ANGLE: -2.6 DEGREES

BALANCED VOLTAGE DROP AND LOAD FLOW ANALYSIS

VOLTAGE EFFECT ON LOADS MODELED

VOLTAGE DROP CRITERIA: BRANCH = 3.00% BUS = 5.00%

LOAD TO: PADS-0011 CABL-0112 FEEDER AMPS: 13.9 VOLTAGE DROP: 2. %VD: 0.02
PROJECTED POWER FLOW: 258.3 KW 131.9 KVAR 290.0 KVA 0.89 LAGGING
LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD FROM: PADS-0009 CABL-0109 FEEDER AMPS: 26.4 VOLTAGE DROP: 0. %VD: 0.00
PROJECTED POWER FLOW: 489.9 KW 252.6 KVAR 551.2 KVA 0.89 LAGGING
LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD FROM: BUS-TDIS-0951P CABL-0111 FEEDER AMPS: 5.7 VOLTAGE DROP: 0. %VD: 0.00
PROJECTED POWER FLOW: -106.5 KW -53.5 KVAR 119.2 KVA 0.89 LAGGING
LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD FROM: BUS-TDIS-0411P CABL-0110 FEEDER AMPS: 6.8 VOLTAGE DROP: 0. %VD: 0.00

PROJECTED POWER FLOW: -125.1 KW -67.2 KVAR 142.1 KVA 0.88 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

==== BUS: PADS-0011 DESIGN VOLTS: 12470 BUS VOLTS: 12033 %VD: 3.50

===== PU BUS VOLTAGE: 0.965 ANGLE: -2.6 DEGREES

LOAD TO: BUS-TDIS-0441P CABL-0114 FEEDER AMPS: 7.2 VOLTAGE DROP: 1. %VD: 0.00

PROJECTED POWER FLOW: 133.0 KW 67.7 KVAR 149.2 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD FROM: PADS-0010 CABL-0112 FEEDER AMPS: 13.9 VOLTAGE DROP: 2. %VD: 0.02

PROJECTED POWER FLOW: 258.2 KW 131.8 KVAR 289.9 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD TO: BUS-TDIS-0421P CABL-0113 FEEDER AMPS: 6.8 VOLTAGE DROP: 0. %VD: 0.00

PROJECTED POWER FLOW: 125.3 KW 64.1 KVAR 140.7 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

==== BUS: PADS-0012 DESIGN VOLTS: 12470 BUS VOLTS: 12059 %VD: 3.30

===== PU BUS VOLTAGE: 0.967 ANGLE: -2.6 DEGREES

BALANCED VOLTAGE DROP AND LOAD FLOW ANALYSIS

VOLTAGE EFFECT ON LOADS MODELED

VOLTAGE DROP CRITERIA: BRANCH = 3.00% BUS = 5.00%

LOAD TO: BUS-TDIS-0141P CABL-0401 FEEDER AMPS: 39.3 VOLTAGE DROP: 1. %VD: 0.01
PROJECTED POWER FLOW: 680.2 KW 457.8 KVAR 820.0 KVA 0.83 LAGGING
LOSSES THRU FEEDER: 0.1 KW 0.0 KVAR 0.1 KVA

LOAD FROM: PADS-0001 CABL-0207 FEEDER AMPS: 31.3 VOLTAGE DROP: 2. %VD: 0.02
PROJECTED POWER FLOW: -569.9 KW -319.2 KVAR 653.2 KVA 0.87 LAGGING
LOSSES THRU FEEDER: 0.1 KW 0.1 KVAR 0.1 KVA

LOAD FROM: BUS-091MAIN CABL-0400 FEEDER AMPS: 88.4 VOLTAGE DROP: 1. %VD: 0.00
PROJECTED POWER FLOW: 1585.2 KW 948.2 KVAR 1847.1 KVA 0.86 LAGGING
LOSSES THRU FEEDER: 0.1 KW 0.0 KVAR 0.1 KVA

LOAD TO: BUS-TDIS-0451P CABL-0402 FEEDER AMPS: 18.0 VOLTAGE DROP: 0. %VD: 0.00

PROJECTED POWER FLOW: 335.0 KW 171.2 KVAR 376.2 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

==== BUS: PADS-0013 DESIGN VOLTS: 12470 BUS VOLTS: 12035 %VD: 3.48

===== PU BUS VOLTAGE: 0.965 ANGLE: -2.6 DEGREES

LOAD FROM: BUS-TDIS-0113P CABL-0304A FEEDER AMPS: 16.2 VOLTAGE DROP: 0. %VD: 0.00

PROJECTED POWER FLOW: -301.6 KW -152.6 KVAR 338.0 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD FROM: BUS-TDIS-0112P CABL-0304 FEEDER AMPS: 10.9 VOLTAGE DROP: 1. %VD: 0.01

PROJECTED POWER FLOW: -202.1 KW -102.8 KVAR 226.7 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

LOAD TO: PADS-0005 CABL-030X FEEDER AMPS: 27.1 VOLTAGE DROP: 1. %VD: 0.01

PROJECTED POWER FLOW: -503.7 KW -255.3 KVAR 564.7 KVA 0.89 LAGGING

LOSSES THRU FEEDER: 0.0 KW 0.0 KVAR 0.0 KVA

==== BUS: SA-0611 DESIGN VOLTS: 12470 BUS VOLTS: 12045 %VD: 3.41

===== PU BUS VOLTAGE: 0.966 ANGLE: -2.6 DEGREES

BALANCED VOLTAGE DROP AND LOAD FLOW ANALYSIS

VOLTAGE EFFECT ON LOADS MODELED

VOLTAGE DROP CRITERIA: BRANCH = 3.00% BUS = 5.00%

LOAD FROM: MH-0006SPL CABL-0316 FEEDER AMPS: 87.7 VOLTAGE DROP: 2. %VD: 0.02
PROJECTED POWER FLOW: 1627.8 KW 833.7 KVAR 1828.9 KVA 0.89 LAGGING
LOSSES THRU FEEDER: 0.3 KW 0.2 KVAR 0.3 KVA

LOAD FROM: MH-0011SPL CABL-0303 FEEDER AMPS: 60.4 VOLTAGE DROP: 6. %VD: 0.04
PROJECTED POWER FLOW: -1119.4 KW -576.9 KVAR 1259.3 KVA 0.89 LAGGING
LOSSES THRU FEEDER: 0.5 KW 0.3 KVAR 0.6 KVA

LOAD TO: BUS-0611_MDPH TDIS-0611 TRANSF AMPS: 16.2 VOLTAGE DROP: 179. %VD: 1.44
PROJECTED POWER FLOW: 301.6 KW 153.3 KVAR 338.4 KVA 0.89 LAGGING
LOSSES THRU TRANSF: 1.6 KW 8.0 KVAR 8.2 KVA

LOAD TO: BUS-0612_MDPL TDIS-0612 TRANSF AMPS: 11.1 VOLTAGE DROP: 122. %VD: 0.98

PROJECTED POWER FLOW: 206.8 KW 103.5 KVAR 231.2 KVA 0.89 LAGGING

LOSSES THRU TRANSF: 0.8 KW 3.7 KVAR 3.8 KVA

BALANCED VOLTAGE DROP AND LOAD FLOW BUS DATA SUMMARY

BUS NAME	BASE VOLT	PU VOLT	BUS NAME	BASE VOLT	PU VOLT
BUS-0021	208.	0.9460	BUS-0031	208.	0.9523
BUS-0041	480.	0.9572	BUS-0051	480.	0.9458
BUS-0071	208.	0.9259	BUS-0072	480.	0.9417
BUS-0073	480.	0.9665	BUS-0081	208.	0.9427
BUS-0100	12470.	0.9667	BUS-0101	208.	0.9392
BUS-0102	480.	0.9312	BUS-0111	480.	0.9501
BUS-0113	208.	0.9507	BUS-0114	480.	0.9519
BUS-0115	480.	0.0000	BUS-0121	480.	0.9555
BUS-0125	480.	0.0000	BUS-0129	480.	0.0000
BUS-0131	480.	0.0000	BUS-0137	480.	0.0000
BUS-0141	480.	0.9338	BUS-0142	480.	0.0000
BUS-0331	480.	0.9263	BUS-0341	208.	0.9133
BUS-0351	208.	0.8968	BUS-0361	208.	0.9255
BUS-0371	208.	0.9262	BUS-0391	208.	0.9406
BUS-0411	208.	0.9286	BUS-0421	208.	0.9449
BUS-0441	208.	0.9484	BUS-0451	480.	0.9510
BUS-0452	480.	0.0000	BUS-0611_MDPH	480.	0.9515

BUS-0612_MDPL	208.	0.9561	BUS-0910	12470.	0.9671
BUS-0911	480.	0.9622	BUS-091MAIN	12470.	0.9671
BUS-0941	480.	0.9409	BUS-0951	208.	0.9535
BUS-0952	208.	0.0000	BUS-GEN-HP	480.	0.9644
BUS-SG-4TAP	12470.	0.9649	BUS-TDIS-0021	12470.	0.9649
BUS-TDIS-0031P	12470.	0.9649	BUS-TDIS-0041P	12470.	0.9649
BUS-TDIS-0051	12470.	0.9649	BUS-TDIS-0071P	12470.	0.9666
BUS-TDIS-0072P	12470.	0.9665	BUS-TDIS-0081P	12470.	0.9655
BUS-TDIS-0101P	12470.	0.9666	BUS-TDIS-0102P	12470.	0.9666
BUS-TDIS-0111P	12470.	0.9652	BUS-TDIS-0112P	12470.	0.9651
BUS-TDIS-0113P	12470.	0.9651	BUS-TDIS-0113P	12470.	0.0000
BUS-TDIS-0121P	12470.	0.9655	BUS-TDIS-0141P	12470.	0.9669
BUS-TDIS-0331P	12470.	0.9656	BUS-TDIS-0341P	12470.	0.9661
BUS-TDIS-0351P	12470.	0.9661	BUS-TDIS-0361P	12470.	0.9656
BUS-TDIS-0371P	12470.	0.9651	BUS-TDIS-0391P	12470.	0.9651
BUS-TDIS-0411P	12470.	0.9651	BUS-TDIS-0421P	12470.	0.9650
BUS-TDIS-0421S	208.	0.9474	BUS-TDIS-0441P	12470.	0.9649
BUS-TDIS-0451P	12470.	0.9670	BUS-TDIS-0911P	12470.	0.9671
BUS-TDIS-0941	12470.	0.9647	BUS-TDIS-0942	12470.	0.0000
BUS-TDIS-0951P	12470.	0.9651	BUS-TDIS-0951P	12470.	0.0000
BUS-WP&L	12470.	0.9677	MH-0006SPL	12470.	0.9661
MH-0011SPL	12470.	0.9654	MH-0037SPL	12470.	0.9650
PADS-0001	12470.	0.9669	PADS-0002	12470.	0.9656
PADS-0003	12470.	0.9650	PADS-0004	12470.	0.9649

BALANCED VOLTAGE DROP AND LOAD FLOW BUS DATA SUMMARY

BUS NAME	BASE VOLT	PU VOLT	BUS NAME	BASE VOLT	PU VOLT
PADS-0004A	12470.	0.9648	PADS-0005	12470.	0.9652
PADS-0006	12470.	0.9666	PADS-0007	12470.	0.9662
PADS-0008	12470.	0.9657	PADS-0009	12470.	0.9651
PADS-0010	12470.	0.9651	PADS-0011	12470.	0.9650
PADS-0012	12470.	0.9670	PADS-0013	12470.	0.9652
SA-0611	12470.	0.9659			

BALANCED VOLTAGE DROP AND LOAD FLOW BRANCH DATA SUMMARY

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BRANCH NAME	FROM NAME	TO NAME	TYPE	VD%	AMPS	KVA	RATING%
CABL-UTIL-0100	BUS-WP&L	BUS-091MAIN	FDR	0.06	411.67	8604.55	86.80
CABL-0100	BUS-091MAIN	PADS-0007	FDR	0.09	111.65	2332.13	42.12
CABL-0200	BUS-091MAIN	PADS-0001	FDR	0.02	93.30	1948.90	35.20
CABL-0300	BUS-091MAIN	PADS-0006	FDR	0.05	123.33	2576.04	46.53
CABL-0400	BUS-091MAIN	PADS-0012	FDR	0.00	88.44	1847.22	33.37
CABL-0500	BUS-091MAIN	BUS-TDIS-0911P	FDR	-0.00	12.49	260.88	4.71
TDIS-0911	BUS-TDIS-0911P	BUS-0911	TX2	0.49	1.48	30.94	10.66
CABL-0202	PADS-0002	PADS-0001	FDR	-0.13	79.51	1658.23	30.00
CABL-0201	PADS-0001	BUS-0100	FDR	0.02	45.26	945.17	17.08
TDIS-0101	BUS-TDIS-0101P	BUS-0101	TX2	2.74	21.86	456.48	78.71
CABL-0103	PADS-0007	PADS-0008	FDR	0.05	65.78	1372.73	24.82
TDIS-0102	BUS-TDIS-0102P	BUS-0102	TX2	3.54	23.40	488.46	75.99
CABL-0201A	BUS-0100	BUS-TDIS-0102P	FDR	0.00	23.40	488.49	8.83
CABL-0205	PADS-0003	PADS-0002	FDR	-0.06	51.29	1068.97	19.35
TDIS-0051	BUS-TDIS-0051	BUS-0051	TX2	1.91	14.36	299.27	62.03
CABL-DOUD	PADS-0003	BUS-TDIS-0051	FDR	0.00	14.36	299.27	5.42

TDIS-0021	BUS-TDIS-0021	BUS-0021	TX2	1.90	7.07	147.34	50.90
CABL-0206	PADS-0003	BUS-TDIS-0021	FDR	0.00	7.07	147.35	2.67
CABL-0208	PADS-0004	PADS-0003	FDR	-0.00	29.86	622.34	11.27
CABL-0311	PADS-0005	MH-0011SPL	FDR	-0.02	60.36	1258.39	22.77
CABL-0306	PADS-0005	MH-0037SPL	FDR	0.02	19.63	409.24	7.41
TDIS-0041	BUS-TDIS-0041P	BUS-0041	TX2	0.77	11.18	232.97	18.11
CABL-0308	BUS-TDIS-0041P	BUS-SG-4TAP	FDR	-0.00	11.18	232.97	4.07
CABL-0310	PADS-0004	MH-0037SPL	FDR	-0.01	19.63	409.13	7.41
CABL-0307	PADS-0004A	PADS-0004	FDR	-0.02	32.59	679.04	12.29
TDIS-0941	BUS-TDIS-0941	BUS-0941	TX2	2.38	32.59	678.99	70.38
CBL-GEN-HP	BUS-GEN-HP	BUS-0911	FDR	0.22	44.61	35.77	26.24
TDIS-0111	BUS-TDIS-0111P	BUS-0111	TX2	1.51	13.65	284.45	36.84
demo CABL-0305	BUS-TDIS-0111P	PADS-0005	FDR	-0.00	13.65	284.45	5.15
CABL-0309	PADS-0006	MH-0006SPL	FDR	0.05	87.66	1830.24	33.07
CABL-030X	PADS-0013	PADS-0005	FDR	-0.01	27.09	564.70	10.22
TDIS-0112	BUS-TDIS-0112P	BUS-0113	TX2	1.44	10.88	226.73	35.33
TDIS-0113	BUS-TDIS-0113P	BUS-0114	TX2	1.32	16.21	337.95	35.02
CABL-0303	MH-0011SPL	SA-0611	FDR	-0.04	60.36	1258.70	22.77
TDIS-0071	BUS-TDIS-0071P	BUS-0071	TX2	4.06	19.50	407.11	105.30
CABL-0302	BUS-TDIS-0072P	PADS-0006	FDR	-0.01	16.17	337.57	6.10
TDIS-0072	BUS-TDIS-0072P	BUS-0072	TX2	2.49	16.17	337.57	52.36
CABL-0301	BUS-TDIS-0071P	PADS-0006	FDR	-0.01	19.50	407.11	7.36
CABL-0106	PADS-0009	PADS-0008	FDR	-0.05	40.89	852.42	15.43
CABL-0102	PADS-0007	BUS-TDIS-0341P	FDR	0.01	33.31	695.05	12.57
TDIS-0341	BUS-TDIS-0341P	BUS-0341	TX2	5.28	33.31	695.01	255.11

BALANCED VOLTAGE DROP AND LOAD FLOW BRANCH DATA SUMMARY

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BRANCH NAME	FROM NAME	TO NAME	TYPE	VD%	AMPS	KVA	RATING%
CABL-0101	PADS-0007	BUS-TDIS-0351P	FDR	0.01	12.56	262.15	4.74
TDIS-0351	BUS-TDIS-0351P	BUS-0351	TX2	6.93	12.56	262.13	241.19
TDIS-0331	BUS-TDIS-0331P	BUS-0331	TX2	3.92	19.24	401.18	83.10
CABL-0104	PADS-0008	BUS-TDIS-0331P	FDR	0.01	19.24	401.22	7.26
TDIS-0361	BUS-TDIS-0361P	BUS-0361	TX2	4.01	5.73	119.41	109.92
CABL-0105	PADS-0008	BUS-TDIS-0361P	FDR	0.00	5.73	119.41	2.16
CABL-0109	PADS-0009	PADS-0010	FDR	0.00	26.44	551.23	9.98
CABL-0107	BUS-TDIS-0371P	PADS-0009	FDR	-0.00	7.89	164.41	2.98
CABL-0108	BUS-TDIS-0391P	PADS-0009	FDR	-0.00	6.56	136.80	2.48
TDIS-0391	BUS-TDIS-0391P	BUS-0391	TX2	2.45	6.56	136.80	63.00
TDIS-0081	BUS-TDIS-0081P	BUS-0081	TX2	2.28	16.86	351.63	72.84
CABL-0203	PADS-0002	BUS-TDIS-0081P	FDR	0.01	16.86	351.65	6.36
TDIS-0121	BUS-TDIS-0121P	BUS-0121	TX2	1.00	11.36	236.90	24.60
CABL-0204	PADS-0002	BUS-TDIS-0121P	FDR	0.01	11.36	236.93	4.29
CABL-0110	BUS-TDIS-0411P	PADS-0010	FDR	-0.00	6.81	142.05	2.57
CABL-0112	PADS-0010	PADS-0011	FDR	0.02	13.91	289.99	5.25

CABL-0113	PADS-0011	BUS-TDIS-0421P	FDR	0.00	6.75	140.71	2.55
CABL-0114	PADS-0011	BUS-TDIS-0441P	FDR	0.00	7.16	149.23	2.70
TDIS-0421	BUS-TDIS-0421P	BUS-TDIS-0421S	TX2	1.76	6.75	140.71	64.81
CABL-HUG_208	BUS-TDIS-0421S	BUS-0421	FDR	0.25	404.75	138.15	57.82
TDIS-0441	BUS-TDIS-0441P	BUS-0441	TX2	1.65	7.16	149.23	51.55
CABL-0312	BUS-TDIS-0941	PADS-0004A	FDR	-0.01	32.59	678.99	12.29
CABL-0401	PADS-0012	BUS-TDIS-0141P	FDR	0.01	39.26	819.97	14.81
CABL-0207	PADS-0001	PADS-0012	FDR	-0.02	31.27	653.09	11.80
TDIS-0411	BUS-TDIS-0411P	BUS-0411	TX2	3.66	6.81	142.05	98.12
CABL-0111	BUS-TDIS-0951P	PADS-0010	FDR	-0.00	5.72	119.21	2.16
TDIS-0951	BUS-TDIS-0951P	BUS-0951	TX2	1.16	5.72	119.21	41.17
TDIS-0371	BUS-TDIS-0371P	BUS-0371	TX2	3.89	7.89	164.41	113.57
CABL-0316	MH-0006SPL	SA-0611	FDR	0.02	87.66	1829.20	33.07
TDIS-0611	SA-0611	BUS-0611_MDPH	TX2	1.44	16.22	338.36	35.12
TDIS-0612	SA-0611	BUS-0612_MDPL	TX2	0.98	11.08	231.23	24.00
CABL-0304A	BUS-TDIS-0113P	PADS-0013	FDR	-0.00	16.21	337.95	6.12
CABL-0304	BUS-TDIS-0112P	PADS-0013	FDR	-0.01	10.88	226.73	4.10
CABL-0201B	BUS-0100	BUS-TDIS-0101P	FDR	0.00	21.86	456.50	8.25
TDIS-0141	BUS-TDIS-0141P	BUS-0141	TX2	3.32	39.26	819.90	84.79
CABL-0600	BUS-TDIS-0911P	BUS-0910	FDR	-0.00	13.43	280.57	5.07
CABL-0402	PADS-0012	BUS-TDIS-0451P	FDR	0.00	18.01	376.23	6.80
TDIS-0451	BUS-TDIS-0451P	BUS-0451	TX2	1.60	18.01	376.21	51.87
TDIS-0031	BUS-TDIS-0031P	BUS-0031	TX2	1.27	5.73	119.34	41.23
CABL-0308A	BUS-SG-4TAP	PADS-0004	FDR	-0.00	16.90	352.32	6.16
CABL-0313	BUS-TDIS-0031P	BUS-SG-4TAP	FDR	-0.00	5.73	119.34	2.09

BALANCED VOLTAGE DROP AND LOAD FLOW BRANCH DATA SUMMARY

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BRANCH NAME	FROM NAME	TO NAME	TYPE	VD%	AMPS	KVA	RATING%
TDIS-0942	BUS-TDIS-0942	BUS-0125	TX2	0.00	0.00	0.00	0.00
TDIS-0073	BUS-TDIS-0072P	BUS-0073	TX2	0.00	0.00	0.00	0.00
TDIS-0142	BUS-TDIS-0141P	BUS-0142	FDR	0.00	0.00	0.00	0.00
TDIS-0452	BUS-TDIS-0451P	BUS-0452	FDR	0.00	0.00	0.00	0.00
TDIS-0912	BUS-TDIS-0451P	BUS-0129	FDR	0.00	0.00	0.00	0.00
TDIS-0114	BUS-TDIS-0113P	BUS-0115	TX2	0.00	0.00	0.00	0.00
TDIS-0453	BUS-TDIS-0951P	BUS-0952	TX2	0.00	0.00	0.00	0.00
TDIS-0915	BUS-TDIS-0341P	BUS-0131	FDR	0.00	0.00	0.00	0.00
TDIS-0914	BUS-TDIS-0911P	BUS-0137	FDR	0.00	0.00	0.00	0.00

NOTE: FDR RATING% = % AMPS RATING BASED ON LIBRARY FLA OR BRANCH INPUT FLA

TX2 RATING% = % KVA RATING BASED ON TRANSFORMER FL KVA

*** TOTAL SYSTEM LOSSES ***

98. KW 381. KVAR