

## Tentative Corps Outage Schedule for CY 2011

<u>Start Date</u>	<u>End Date</u>	<u>Equipment</u>		<u>Description</u>
06 JUN -	15 OCT	GP	3	Intake bay continual cleaning due to high inflows to project
13 JUN -	04 FEB	BB	5	Unit Stator Rewind / Unit Maintenance / Relay Install / Maintenance
05 JUL -	08 NOV	GA	4	Unit Transformer Replacement, Unit Inspection
01 AUG -	01 OCT	GA		Replace 13.8KV and 480V SS switchgear and Motor Control Centers
14 AUG -	28 OCT	FP	2	Repair U-2 Exiter Transformer
05 SEP -	28 SEP	OA	7	Generator Breaker Replacement and Unit Inspection
05 SEP -	28 SEP	OA	6	Generator Breaker Replacement
06 SEP -	21 SEP	BB	8	Unit Maintenance
12 SEP -	15 SEP	FR		Install new PD's
12 SEP -	07 OCT	FP	4	Annual Maintenance
12 SEP -	22 SEP	GA	2	Unit Maintenance
26 SEP -	29 SEP	FR	3	Unit inspection.
26 SEP -	06 OCT	GA	3	Unit Maintenance
03 OCT -	06 OCT	FR	5	Unit inspection.
03 OCT -	26 OCT	OA		Sully Buttes Brake Relay
11 OCT -	30 OCT	OA	3	Generator Breaker Replacement and Unit Maintenance
11 OCT -	30 OCT	OA	2	Generator Breaker Replacement
11 OCT -	28 OCT	FP	5	Annual Maintenance
11 OCT -	21 OCT	FR	7	Unit maintenance
17 OCT -	21 OCT	BB	7	Unit Inspection
17 OCT -	22 NOV	OA	5	Unit 5 Guide Bearing Replacement
24 OCT -	15 DEC	FR	8	Unit maintenance and cavitation repair
25 OCT -	27 OCT	OA	5	Generator Breaker Replacement Mod
25 OCT -	27 OCT	OA	4	Generator Breaker Replacement Mod
02 NOV -	02 NOV	GA	2	Review Black-Start Exercise - NERC Compliance
02 NOV -	02 NOV	GA	1	Review Black-Start Exercise - NERC Compliance
07 NOV -	16 DEC	BB	6	Unit Maintenance/Relay Install ( Paired Units 5/6 ) (+ 2 wks )
05 DEC -	12 JAN	GP	1	Unit one annual maintenance outage

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<u>Start Date</u>	<u>End Date</u>	<u>Equipment</u>	<u>Description</u>
13 JUN -	04 FEB	BB 5	Unit Stator Rewind / Unit Maintenance / Relay Install / Maintenance
01 AUG -	01 OCT	GA	Replace 13.8KV and 480V SS switchgear and Motor Control Centers
05 DEC -	12 JAN	GP 1	Unit one annual maintenance outage
16 JAN -	23 FEB	GP 3	Unit three annual maintenance outage
30 JAN -	02 FEB	FR 4	Unit inspection.
04 FEB -	07 SEP	BB 7	Unit Stator Rewind / Unit Maintenance / Relay Install / Maintenance
06 FEB -	09 FEB	FR 6	Unit inspection.
07 FEB -	07 FEB	OA	Functional Test New Underwood line relays
14 FEB -	14 FEB	OA	Functional Test Irv Simons line relays
27 FEB -	05 APR	GP 2	Unit two annual maintenance outage
27 FEB -	16 MAR	FP 2	Annual Maintenance
01 MAR -	30 NOV	GA	Switchyard upgrade and installation of new auto-transformer
05 MAR -	05 APR	BB 4	Unit Inspection / Relay Install ( Paired Units 3/4 )(+ 2 wks )
05 MAR -	05 APR	BB 3	Unit Maintenance / Relay Install ( Paired Units 3/4 )(+ 2 wks )
05 MAR -	16 MAR	OA 2	Unit 2 Maintenance
05 MAR -	13 APR	FR 2	"Unit voltage regulator replacement, unit maintenance, and install thrust bearing cooling coils. "
12 MAR -	08 JUN	GA 2	"Unit Transformer Replacement, Unit Inspection"
26 MAR -	29 MAR	OA 1	Unit 1 Inspection
26 MAR -	13 APR	FP 3	Annual Maintenance
09 APR -	20 APR	OA 6	Unit 6 Maintenance
09 APR -	10 MAY	BB 2	Unit Inspection / Relay Install ( Paired Units 1/2 )(+ 2 wks )
09 APR -	10 MAY	BB 1	Unit Maintenance / Relay Install ( Paired Units 1/2 )(+ 2 wks )
09 APR -	12 APR	GA 4	Unit Inspection
16 APR -	25 MAY	FR 1	"Unit voltage regulator replacement, unit maintenance, and cavitation repair"
23 APR -	23 APR	GP 3	Unit outage to clean trash racks - dependent upon weather
23 APR -	11 MAY	FP 1	Annual Maintenance
24 APR -	24 APR	GP 2	Unit outage to clean trash racks - dependent upon weather

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<u>Start Date</u>	<u>End Date</u>	<u>Equipment</u>	<u>Description</u>
25 APR -	25 APR	GP 1	Unit outage to clean trash racks - dependent upon weather
30 APR -	04 MAY	OA 4	Unit 4 Maintenance
14 MAY -	24 MAY	OA 5	Unit 5 Inspection
16 MAY -	16 MAY	BB 4	lack Start - Table Top Exercise
21 MAY -	21 MAY	BB 2	Doble Testing Units 1-8 Generators
21 MAY -	21 MAY	BB 1	Doble Testing Units 1-8 Generators
21 MAY -	03 JUL	BB 8	Relay Installations
22 MAY -	22 MAY	BB 3	Doble Testing Units 1-8 Generators
22 MAY -	22 MAY	BB 4	Doble Testing Units 1-8 Generators
23 MAY -	23 MAY	BB 6	Doble Testing Units 1-8 Generators
23 MAY -	23 MAY	BB 5	Doble Testing Units 1-8 Generators
24 MAY -	24 MAY	BB 8	Doble Testing Units 1-8 Generators
24 MAY -	24 MAY	BB 7	Doble Testing Units 1-8 Generators
04 JUN -	07 JUN	OA 3	Functional Test Transformer Bank 2 relays (8hr double unit outage)
04 JUN -	07 JUN	OA 2	Functional Test Transformer Bank 2 relays (8hr double unit outage)
04 JUN -	07 JUN	FP	Functional Test AT-2 - Units 4&5 Xfmers
11 JUN -	14 JUN	OA 5	Functional Test Transformer Bank 3 relays (8hr double unit outage)
11 JUN -	21 JUN	FR	Doble test OCB's
11 JUN -	14 JUN	OA 4	Functional Test Transformer Bank 3 relays (8hr double unit outage)
18 JUN -	21 JUN	OA	Doble Test OCB's
25 JUN -	28 JUN	OA	Functional Test Auto Transformer relays
09 JUL -	02 NOV	GA 1	"Unit Transformer Replacement, Unit Inspection"
20 AUG -	23 AUG	GA	Doble test OCB's
01 SEP -	30 OCT	GA	Functional Testing of Transmission and Bus Relays
04 SEP -	12 OCT	FR 3	"Unit voltage regulator replacement, unit maintenance, and cavitation repair"
07 SEP -	29 APR	BB 8	Unit Stator Rewind / Unit Maintenance / Relay Install / Maintenance
10 SEP -	20 SEP	GA 5	Unit Maintenance
10 SEP -	20 SEP	OA 7	Unit 7 Maintenance
10 SEP -	14 SEP	BB 6	Unit Inspection
10 SEP -	28 SEP	FP 4	Annual Maint. & Doble Test Unit 4 Xfmr
24 SEP -	27 SEP	GA 3	Unit Inspection

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<u>Start Date</u>	<u>End Date</u>	<u>Equipment</u>	<u>Description</u>
24 SEP -	11 OCT	BB 5	Unit Maintenance
01 OCT -	04 OCT	OA 3	Unit 3 Inspection
01 OCT -	04 OCT	FP	Functional Test 34.5 KV Xfmer T-5
09 OCT -	26 OCT	FP 5	Annual Maint. & Doble Test Unit 5 Xfmr
15 OCT -	30 NOV	FR 4	"Unit voltage regulator replacement, unit maintenance, and install thrust bearing cooling coils. "
05 NOV -	22 NOV	BB 7	Unit Maintenance
07 NOV -	07 NOV	GA 1	Black-Start Exercise - NERC Compliance
02 DEC -	12 JAN	GP 1	Unit one annual maintenance outage
03 DEC -	06 DEC	FR 1	Unit inspection.
10 DEC -	13 DEC	FR 2	Unit inspection.

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<u>Start Date</u>	<u>End Date</u>	<u>Equipment</u>		<u>Description</u>
07 SEP -	29 APR	BB	8	Unit Stator Rewind / Unit Maintenance / Relay Install / Maintenance
02 DEC -	12 JAN	GP	1	Unit one annual maintenance outage
07 JAN -	10 JAN	FR	7	Unit inspection.
14 JAN -	21 FEB	GP	2	Unit two annual maintenance outage
28 JAN -	31 JAN	FR	8	Unit inspection.
18 FEB -	22 FEB	OA	6	Unit 6 Inspection
25 FEB -	04 APR	GP	3	Unit three annual maintenance outage
01 MAR -	30 NOV	GA		Switchyard upgrade and installation of new auto-transformer
04 MAR -	12 APR	FR	5	"Unit voltage regulator replacement, unit maintenance, and install thrust bearing cooling coils. "
04 MAR -	21 MAR	BB	4	Unit Maintenance
04 MAR -	22 MAR	FP	2	Annual Maintenance
04 MAR -	15 MAR	OA	1	Unit 1 Maintenance
25 MAR -	29 MAR	OA	2	Unit 2 Inspection
01 APR -	19 APR	FP	3	Annual Maintenance
01 APR -	04 APR	GA	4	Unit Inspection
01 APR -	05 APR	BB	3	Unit Inspection
08 APR -	19 APR	OA	4	Unit 4 Maintenance
08 APR -	11 APR	GA	5	Unit Inspection
10 APR -	10 APR	BB	4	Black Start - NERC/WAPA ( Unit 4 )
15 APR -	02 MAY	BB	2	Unit Maintenance
15 APR -	24 MAY	FR	6	"Unit voltage regulator replacement, unit maintenance, and cavitation repair"
15 APR -	25 APR	GA	3	Unit Maintenance
29 APR -	17 MAY	FP	1	Annual Maintenance
29 APR -	03 MAY	OA	5	Unit 5 Inspection
06 MAY -	10 MAY	BB	1	Unit Inspection
13 MAY -	15 MAY	BB	1	"Doble Testing Transformers 1-4, Double Unit Outages,Transformer Maint/Line/ Func"
13 MAY -	15 MAY	BB	2	"Doble Testing Transformers 1-4, Double Unit Outages,Transformer Maint/Line/ Func"
13 MAY -	16 MAY	OA		"Functional Test Eagle Butte, Sully Buttes and Pierre

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16 MAY	- 18 MAY	BB 3	lines" "Doble Testing Transformers 1-4, Double Unit Outages,Transformer Maint/Line/ Func"
16 MAY	- 18 MAY	BB 4	"Doble Testing Transformers 1-4, Double Unit Outages,Transformer Maint/Line/ Func"
19 MAY	- 21 MAY	BB 5	"Doble Testing Transformers 1-4, Double Unit Outages,Transformer Maint/Line/ Func"
19 MAY	- 21 MAY	BB 6	"Doble Testing Transformers 1-4, Double Unit Outages,Transformer Maint/Line/ Func"
20 MAY	- 24 MAY	BB 8	"Doble Testing Transformers 1-4, Double Unit Outages,Transformer Maint/Line/ Func"
20 MAY	- 24 MAY	BB 7	"Doble Testing Transformers 1-4, Double Unit Outages,Transformer Maint/Line/ Func"
20 MAY	- 23 MAY	OA	Functional Test Fort Thompson 1 - 4 line relays
27 MAY	- 27 MAY	OA 1	Doble Test transformer banks (8hr double unit outages)
28 MAY	- 28 MAY	OA 2	Doble Test transformer banks (8hr double unit outages)
28 MAY	- 28 MAY	OA 3	Doble Test transformer banks (8hr double unit outages)
29 MAY	- 29 MAY	OA 5	Doble Test transformer banks (8hr double unit outages)
29 MAY	- 29 MAY	OA 4	Doble Test transformer banks (8hr double unit outages)
30 MAY	- 30 MAY	OA 6	Doble Test transformer banks (8hr double unit outages)
30 MAY	- 30 MAY	OA 7	Doble Test transformer banks (8hr double unit outages)
03 JUN	- 07 JUN	FP	Doble & Functional Test KV7A
03 JUN	- 06 JUN	OA	"Functional Test 115 and 230 kv main buss and 1,3,5 relays"
10 JUN	- 14 JUN	FP	Doble & Functional Test Transformer Bank #2
10 JUN	- 13 JUN	OA 6	Functional Test Transformer Bank 4 relays
10 JUN	- 13 JUN	OA 7	Functional Test Transformer Bank 4 relays
17 JUN	- 20 JUN	OA 1	Functional Test Transformer Bank 1 relays
17 JUN	- 21 JUN	FP	Doble & Functional Test Transformer Banks # 3 & 4
19 AUG	- 23 AUG	GA	"Doble test Swyd. Line & Bus CCVT's, CT's, & PT's and SS Switchgear. "
03 SEP	- 11 OCT	FR 7	"Unit voltage regulator replacement, unit maintenance, and install thrust bearing cooling coils. "
09 SEP	- 26 SEP	BB 6	Unit Maintenance
09 SEP	- 13 SEP	OA 7	Unit Inspection
09 SEP	- 27 SEP	FP 4	Annual Maintenance
09 SEP	- 19 SEP	GA 1	"Unit Maintenance, Governor & Brg. Oil Change"
23 SEP	- 04 OCT	OA 3	Unit Maintenance

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23 SEP -	03 OCT	GA 2	"Unit Maintenance, Governor & Brg. Oil Change"
07 OCT -	25 OCT	FP 5	Annual Maintenance
07 OCT -	11 OCT	BB 5	Unit Inspection
15 OCT -	27 NOV	FR 8	"Unit voltage regulator replacement, unit maintenance, and cavitation repair"
21 OCT -	07 NOV	BB 8	Unit Maintenance
06 NOV -	06 NOV	GA 2	Black-Start Exercise - NERC Compliance
18 NOV -	22 NOV	BB 7	Unit Inspection
02 DEC -	05 DEC	FR 3	Unit inspection.
09 DEC -	12 DEC	FR 4	Unit inspection.

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