

# TRANSMISSION COMPANY OF NIGERIA

To: Head (ISO), TCN - Abuja  
From: General Manager, NCC, Osogbo

## DAILY OPERATIONAL REPORT OF THURSDAY 30/11/2017 FOR: EVENTS OF WEDNESDAY 29/11/2017

### 1.0 EXECUTIVE OPERATIONS SUMMARY: 1.1 GENERATION PROFILE: NATIONAL STATISTICS

DETAILS	MW	HRS	DATE
PEAK DEMAND FORECAST (CONNECTED + SUPPRESSED LOAD)	17,720	21:30	29/11/2017
GENERATION CAPABILITY	7436.6	-do-	-do-
UNITS ON BAR CAPABILITY AT PEAK	5528.1	-do-	-do-
PEAK GENERATION	4676.1	-do-	-do-
LOWEST GENERATION	3587.4	03:00	29/11/2017
8-HOURLY DURATION PEAK	4033.5	0000-0800	-do-
	3956.8	0900-1600	-do-
	4676.1	1700-2400	-do-
PEAK GENERATION TO DATE	5074.7	21:30	02/02/2016
MAXIMUM AVAILABLE CAPACITY TO DATE	7492.6	06:00	14/04/2014
MAXIMUM ENERGY GENERATED (MWH) TO DATE	109,372.01	0000-2400	02/02/2016

### 1.2 CRITICAL VOLTAGE

DETAILS	KV	STATION	HRS
NOMINAL VOLTAGE	330		
STATUTORY LIMITS	280.5 - 346.6		
HIGHEST VOLTAGE FOR THE DAY	353	Omotosho T/S	14:00
LOWEST VOLTAGE FOR THE DAY	300	Gombe, Kumbotso & Yola T/S	05:00, 06:00 & 18:00

### 1.3 FREQUENCY RANGE

DETAILS	HZ	HRS
NOMINAL FREQUENCY	50	
STATUTORY LIMITS	49.75-50.25	
HIGHEST FREQUENCY	50.53	07:54
LOWEST FREQUENCY	49.91	19:14

### 1.4 SYSTEM COLLAPSE UP DATE

		No. of days since last total collapse: 32												Total
Date of last total collapse: 30th Oct, 2017														
Date of last partial collapse: 17 <sup>th</sup> Oct., 2017		No. of days since last partial collapse: 44												Total
Highest No of days ever attained in-between total collapses: 134		Highest No of days ever attained in-between partial collapses: 240												Total
		Jan	Feb.	Mar.	Apr.	May	Jun	Jul	Aug	Sep.	Oct	Nov	Dec	Total
2009	Total	1	--	--	--	2	5	5	4	1	--	--	1	19
	Partial	--	5	4	3	3	--	--	1	--	2	1	1	20
2010	Total	--	3	1	--	3	3	3	--	2	2	1	4	22
	Partial	1	--	--	1	1	3	4	4	3	2	--	1	20
2011	Total	--	--	--	--	4	3	1	1	1	2	1	--	13
	Partial	--	1	1	--	--	--	--	1	--	1	2	--	6
2012	Total	--	--	2	1	5	2	1	--	--	2	2	1	16
	Partial	--	--	2	3	--	--	--	--	1	--	1	1	8
2013	Total	--	1	2	2	3	4	1	1	1	1	4	2	22
	Partial	--	--	--	--	--	--	--	--	2	--	--	--	2
2014	Total	2			2	0	3	1	0	0	1	0	0	9
	Partial			0	0	1	0	0	0	0	0	2	1	4
2015	Total	1	0	1	0	2	0	1	0	0	0	1	0	6
	Partial	--	--	1	0	2	0	0	0	0	1	0	0	4
2016	Total	--	--	2	3	6	5	0	0	1	1	2	2	22
	Partial	--	--	1	0	1	3	1	0	0	0	0	0	6
2017	Total	5	3	0	3	1	1	0	0	1	1			15
	Partial	1	0	1	0	0	0	1	0	3	3			9

### 1.5 BREAKDOWN OF PEAK & OFF PEAK GENERATION (NATIONAL PEAK & OFF PEAK)

STATION	TURBINE	PEAK GEN. (MW)	OFF-PEAK GEN(MW)	
1	KAINJI	HYDRO	389	248
2	JEBBA	HYDRO	426	246
3	SHIRORO	HYDRO	295	107
4	EGBIN ST2 - 5	STEAM	511	502
5	SAPELE	STEAM	0	0
6	DELTA	GAS	473	373
7	AFAM IV-V	GAS	62	63
8	GEREGU GAS	GAS	279	243
9	OMOTOSHO GAS	GAS	174.2	112.8
10	OLORUNSOGO GAS	GAS	136.1	125
11	GEREGU NIPP	GAS	144	121
12	SAPELE NIPP	GAS	190	157.8
13	ALAOJI NIPP	GAS	0	0
14	OLORUNSOGO NIPP	GAS	105.2	110.9
15	OMOTOSHO NIPP	GAS	109.9	93.5
16	ODUKPANI NIPP	GAS	166	170.8
17	IHOVBOR NIPP	GAS	91.1	78.4
18	OKPAI	GAS	317	215
19	AFAM VI	GAS	398	225
20	IBOM POWER	GAS	99.8	70.4
21	ASCO	GAS	0	0
22	A.E.S	GAS	0	0
23	OMOKU	GAS	21.5	34.4
24	TRANS AMADI	GAS	60.9	58.8
25	RIVERS IPP	(GAS)	0	0
26	EGBIN ST6	(GAS)	162	163
27	PARAS ENERGY	(GAS)	65.4	68.6
28	GBARAIN NIPP	GAS	0	0
<b>TOTAL</b>		<b>4676.1</b>	<b>3587.4</b>	

  

1.6 ENERGY GENERATED/ENERGY SENT OUT:		ENERGY GENERATED		ENERGY SENT OUT		
STATION	TURBINE	MWH	MWHH	MWH	MWHH	
1	KAINJI	HYDRO	7521.00	313.38	7504.90	312.70
2	JEBBA	HYDRO	7101.00	295.88	7077.68	294.90
3	SHIRORO	HYDRO	3827.00	159.46	3795.82	158.16
4	EGBIN ST2 - 5	STEAM	12320.00	513.33	11712.90	488.04
5	SAPELE	STEAM	0.00	0.00	0.00	0.00
6	DELTA	GAS	10554.22	439.76	10422.10	434.25
7	AFAM IV-V	GAS	1473.00	61.38	1467.65	61.15
8	GEREGU GAS	GAS	6175.30	257.30	6147.63	256.15
9	OMOTOSHO GAS	GAS	3331.00	138.79	3304.90	137.70
10	OLORUNSOGO GAS	GAS	2928.41	122.02	2899.90	120.83
11	GEREGU NIPP	GAS	3101.88	129.25	3087.40	128.64
12	SAPELE NIPP	GAS	4272.20	178.01	4251.50	177.15
13	ALAOJI NIPP	GAS	0.00	0.00	0.00	0.00
14	OLORUNSOGO NIPP	GAS	2565.20	106.88	2531.00	105.46
15	OMOTOSHO NIPP	GAS	2410.50	100.44	2394.90	99.79
16	ODUKPANI NIPP	GAS	4225.90	176.08	4196.03	174.83
17	IHOVBOR NIPP	GAS	2000.00	83.33	1977.64	82.40
18	OKPAI	GAS	5604.00	233.50	5452.20	227.18
19	AFAM VI	GAS	6706.97	279.46	6625.00	276.04
20	IBOM	GAS	2014.10	83.92	2005.00	83.54
21	ASCO	GAS	0.00	0.00	0.00	0.00
22	A.E.S	GAS	0.00	0.00	0.00	0.00
23	OMOKU	GAS	604.70	25.20	584.50	24.35
24	TRANS AMADI	GAS	1425.00	59.38	1366.50	56.94
25	RIVERS IPP	GAS	0.00	0.00	0.00	0.00
26	EGBIN ST6	STEAM	3805.00	158.54	3613.80	150.58
27	PARAS ENERGY	GAS	1612.80	67.20	1605.00	66.88
28	GBARAIN NIPP	GAS	0.00	0.00	0.00	0.00
<b>TOTAL</b>		<b>95,579.18</b>	<b>3,982.47</b>	<b>94,023.95</b>	<b>3,917.66</b>	

1.7A

## GENERATION POSITION AT 06:00HRS OF THURSDAY 30/11/2017

	STATIONS	NO OF INSTALLED UNITS	AVAILABLE UNITS	INSTALLED CAPACITY OF AVAILABLE UNITS(MW)	GENERATION CAPABILITY OF AVAILABLE UNITS(MW)	UNITS ON BAR	CAPABILITY OF UNITS ON BAR (MW)	GENERATION AT 06:00HRS (MW)	REMARKS
PRIVATISED COMPANIES	KAINJI HYDRO	8	1G5, 6,11 & 12 4	440	440	1G5, 6, 11 & 12 4	440	310	1G7 - Out on stator winding failure. 1G8 - Out due to loss of supply to the auxiliary. 1G9 - Out due to burnt 7.5MVA 33/0.415kV & 183.6MVA 16/330kV station service transformer and generator transformer. 1G10 - Shut down due to thrust bearing temperature problem.
	JEBBA HYDRO	6	2G1 - 5 5	475	475	2G1, 3 & 5 3	285	259	2G2 & 4 - Out on frequency management. 2G6 - Out due to burnt generator winding and AVR.
	SHIRORO HYDRO	4	411G1, 2 & 4 3	450	450	411G1 & 2 2	300	283	411G3 - Out on maintenance. 411G4 - Out on water management.
	EGBIN STEAM	5	ST2, 4 & 5 3	660	660	ST2, 4 & 5 3	660	491	ST1 - Tripped on generator CB trouble. ST3 - Tripped on high vibration.
	SAPELE (STEAM)	6	0 0	0	0	0 0	0	0	ST1 - Tripped on low drum level. ST2 - Out on maintenance. ST3 - Out on stator winding problem. ST4 & 5 - Awaiting major overhaul. ST6 - Tripped on gas control valve not following reference point.
	DELTA (GAS)	18	GT4, 7, 9 -13, 15, 16, 18, 19 & 20 12	700	665	GT4, 7, 9 -13, 15, 16, 18, & 20 11	565	525	GT3 & 5 - Out due to generator winding fault. GT6 & 14 - Out on major overhaul. GT8 - Out on maintenance. GT17 - Out on excitation trouble. GT19 - Out on frequency management.
	AFAM IV & V (GAS)	8	GT18 1	75	63	GT18 1	63	63	GT1 - 12 - De-commissioned and scrapped. GT13 -16 - Out on blade failure. GT17 - Tripped on loss of excitation. GT19 & 20 - Awaiting major overhaul.
	GEREGU GAS	3	GT11 - 13 3	435	435	GT12 & 13 2	290	262	GT11 - Shut down due to gas constraints. Generation reduced due to gas constraint.
	OMOTOSHO GAS	8	GT1 - 8 8	336	304	GT1, 3, 5, 6 & 7 5	190	135.7	GT2, 4 & 8 - Out on frequency management. Generation reduced on frequency management.
	OLORUNSOGO GAS	8	GT1 - 8 8	336	304	GT2, 4, 6 & 8 4	152	125.7	GT1, 3, 5 & 7 - Out on frequency management.
NIPP	GEREGU NIPP	3	GT22 & 23 2	290	290	GT23 1	145	135	GT21 - Out on maintenance. GT22 - Out due to gas constraints.
	SAPELE NIPP	4	GT1 & 2 2	225	225	GT1 & 2 2	225	172.2	GT3 - Out on undisclosed fault. GT4 - Tripped on fire protection alarm. Generation reduced due to high gas temperature.
	ALAOJI NIPP GAS	4	GT1 & 2 2	250	240	0 0	0	0	GT1 & 2 - Tripped due to low gas pressure. GT3 - Shut down due to generator air inlet filter trouble. GT4 - Out on maintenance.
	OLORUNSOGO NIPP GAS	6	GT1 - 3 3	375	360	GT1 1	120	106.7	GT2 & 3 - Out on frequency management. GT4 - Out of production since 25/10/2016. ST13 & ST23 - Out on maintenance.
	OMOTOSHO NIPP GAS	4	GT1 & 4 2	250	240	GT4 1	120	100.5	GT1 - Out on frequency management. GT2 - Tripped on loss of power supply from MCC. GT3 - Shut down due to oil leakage on the unit.
	ODUKPANI NIPP	5	GT2, 3, 4 & 5 4	480	468	GT2, 4 & 5 3	351	260.9	GT1 - Out due to air inlet differential pressure. GT3 - Out due to line constraint.
	IHOVBOR NIPP	4	GT1 - 3 3	337.5	337.5	GT3 1	112.5	82.4	GT1 & 2 - Out due to gas constraints. GT4 - Out on maintenance.
	GBARAIN NIPP GAS	1	0 0	0	0	0 0	0	0	GT2 - Out due to heater problem.
IPP	OKPAI GAS/STEAM	3	GT11, 12 & ST18 3	375	375	GT11, 12 & ST18 3	375	233	Generation limited to 375MW due to unavailability of one boiler as a result of water shortage.
	AFAM VI GAS/STEAM	4	GT11 - 13 & ST10 4	620	620	GT11 - 13 3	420	365	ST10 - Out on frequency management.
	IBOM POWER GAS	3	GT3 1	115	77.1	GT3 1	92.8	92.8	GT1 & 2 - Out on fault. Generation reduced due to high air inlet differential pressure
	AES		0 0	0	0	0 0	0	0	Out of production since 27/09/2014.
	ASCO		0 0	0	0	0 0	0	0	GT1 - Shut down due to leakage in the furnace.
	OMOKU GAS	6	GT2 & 5 2	50	40	GT2 & 5 2	22	22	GT1 & 6 - Out on fault. GT3 - Out due to gas leakage. GT4 - Awaiting major overhaul. Generation reduced due to gas constrains.
	TRANS-AMADI	4	GT1, 2 & 4 3	75	61.2	GT1, 2 & 4 3	61.2	61.2	GT3 - Out on fault.
	RIVERS		0 0	0	0	0 0	0	0	Out of production since 16/09/2016.
	<b>SUB TOTAL</b>	<b>125</b>	<b>78</b>	<b>7349.5</b>	<b>7129.8</b>	<b>56</b>	<b>4989.5</b>	<b>4086.1</b>	Frequency = 50.32Hz.

1.7B GENERATION POSITION AT 06:00HRS OF THURSDAY 30/11/2017 FOR UNITS ON BILATERAL AGREEMENT

FEEDER NAME	MAX. LOAD (MW)	TIME (HRS)	HOURS IN SERVICE	REMARK
Egbin ST6 120MW GENERATION TO IKEJA ELECTRICITY DISTRIBUTION COMPANY				
U-STEEL	1MW	0900HRS	12HRS	AWAIT PATROL
PTCEXPRESS	OUT	out	out	TRIPPED ON O/C & E/F
SANKYO	ON	0100HRS	22HRS	STATION WAS OPEN
FEEDER 8	17MW	0900HRS	22HRS	STATION WAS OPEN
PULK IT	ON	0100	24	Nil
INDUSTRIAL	20	2100	24	Nil
SPINTEX	2	0100	24	Nil
DANGOTE	4	0100	24	Nil
LAND CRAFT	42	1700	24	Nil
TR4 -15MVA	OUT	OUT	OUT	PLANNED OUTAGE
TR5 -15MVA	9.2	8:00	24	Nil
ALAUUSA	16.6	8:00	19	TRIPPED ON E/F
PTC (MARYLAND)	17	17:00	24HRS	Nil
<b>TOTAL LOAD</b>	<b>110.8</b>			

1.7C

BILATERAL AGREEMENT UNITS DISPATCH - WEDNESDAY 29/11/2017

FEEDERS NAME	MAX. LOAD (MW)	TIME (HRS)	HOURS IN SERVICE	REMARK
Egbin ST6 120MW GENERATION TO IKEJA ELECTRICITY DISTRIBUTION COMPANY				
U-STEEL	1MW	0900HRS	12HRS	AWAIT PATROL
PTCEXPRESS	OUT	out	out	TRIPPED ON O/C & E/F
SANKYO	ON	0100HRS	22HRS	STATION WAS OPEN
FEEDER 8	17MW	0900HRS	22HRS	STATION WAS OPEN
PULK IT	ON	0100	24	Nil
INDUSTRIAL	20	2100	24	Nil
SPINTEX	2	0100	24	Nil
DANGOTE	4	0100	24	Nil
LAND CRAFT	42	1700	24	Nil
TR4 -15MVA	OUT	OUT	OUT	PLANNED OUTAGE
TR5 -15MVA	9.2	8:00	24	Nil
ALAUUSA	16.6	8:00	19	TRIPPED ON E/F
PTC (MARYLAND)	17	17:00	24HRS	Nil
<b>TOTAL LOAD</b>	<b>110.8</b>			

BILATERAL AGREEMENT LOAD DISPATCH  
60MW PARAS ENERGY GENERATION TO CEB

FEEDER	MAX	TIME	HOURS IN SERVICE	REMARK
Ikeja West/Sakete 330KV line	69.4	05:00	24	NIL



5.0 **OUTAGES:**

5 (A) **FORCED OUTAGES (GENERATION):-**

- 1 13:31 - 19:20Hrs, Delta GT18 tripped on high exhaust temperature. LHR = 86MW.

5 (B) **FORCED OUTAGES TRANSMISSION:-**

- 1 13:29 – 14:12Hrs, Ikeja West/Sakete 330kV line (cct NW1BS) CB tripped at Ikeja West T/S on Siprotec Relay – General trip Red, Yellow & Blue Phases fault, PU time = 1026ms, Z3 trip 5X – B pick up, trip Phases ABC, relay trip = 1046ms 50N/51N, distance = 51.6km. LHR = 250MW.
- 2 15:23 – 15:49Hrs, Ayede/Iwo/Iseyin 132kV line CB tripped at Ayede T/S on the following relay indications:  
Optimho Relay: DEF start, location = 315.7km, period = N/A.  
Siemens Relay: Back up relay O/C Red Phase. LHR = 62MW.
- 3 06:10 through 24:00Hrs, Irrua T/S 60MVA 132/33kV transformer T1 primary and secondary CBs tripped on differential. Its 300KVA 33/0.145kV earthing transformer ET1 tripped on Buchholz and differential. No load interruption as transformer was on soak.

5 (C) **PLANNED OUTAGES:-** Nil.

5 (D) **URGENT OUTAGES:**

- 1 14:46 – 15:44Hrs, Abeokuta T/S 30MVA 132/33kV transformer T1 was taken out for EMD crew top up low oil in the conservator tank to normal. Load loss = 10MW.

9 **GENERATOR MERIT ORDER BASED ON SYSTEM RESPONSE AND GRID RELIABILITY**

GROUP 1 - HYDRO UNITS (LEAST COST) ON FREE GOVERNOR CONTROL AND ANCILLARY SERVICE .

GROUP 2 - OTHER UNITS IDENTIFIED TO BE ON FREE GOVERNOR CONTROL .

GROUP 3 - OTHER UNITS IDENTIFIED TO BE OFFERING REGULATORY RESERVE.

GROUP 4 - OTHER UNITS OFFERING SPINNING RESERVE (THE POWER PLANTS CONTACTED FOR THE ANCILLARY SERVICE)

GROUP 5 - ALL PLANTS DISPATCHED SUBJECT TO TRANSMISSION CONSTRAINT (NOT YET IDENTIFIED)

GROUP 6 - ALL PLANTS PROVIDING VOLTAGE SUPPORT ABOVE STATUTORY LIMIT.

GROUP 7 - ALL OTHER PLANTS.

5 (E) **EMERGENCY OUTAGES:-** Nil.

5 (F) **AUTOMATIC UNDER FREQUENCY OPERATION:-** NIL

5 (G) **330KV LINES THAT ARE OUT ON VOLTAGE CONTROL:-** cct A1S.

5 (I) **330KV LINES THAT ARE OUT ON PLANNED OUTAGE:-**

5 (H) **330KV LINES THAT ARE OUT ON BREAKER PROBLEM:-** cct N4J (on soak at Egbin T/S). cct B3S (on soak at Benin T/S)

5 (I) **330KV LINES THAT ARE OUT ON PLANNED OUTAGE:-** NIL

5 (J) **330KV LINES THAT ARE OUT ON LINE FAULT:-** ccts D1K, U1A, U2A, K4U & S5B

6 **WEATHER REPORT:-** NIL

7 **INTERNATIONAL LINES:-**

A **IKEJA WEST/SAKETE 330KV LINE(TCN+PARAS)**

Maximum load - 255MW at 24:00Hrs.

Minimum load - 152MW at 15:00Hrs.

B **BIRNIN KEBBI/NAMEY 132KV LINE**

Maximum load - 97MW at 17:00Hrs.

Minimum load - 65MW at 04:00Hrs.

C **KATSINA/GAZAOUA/MARADI 132KV LINE**

Maximum load - 30.2MW at 20:00Hrs.

Minimum load - 17.6MW at 04:00Hrs.

8 **MISCELLANEOUS:-**

1 00:42Hrs, Shiroro P/S reduced generation by 100MW. Frequency was 50.43Hz.

2 01:28Hrs, Geregu P/S reduced generation by 90MW. Frequency was 50.43Hz.

3 05:30Hrs, Makurdi T/S 330kV 75MX Shunt Reactor SR01 was switched off on voltage control. Voltage profile: 295/328kV.

4 09:20Hrs, Jebba 2G1 was declared available. The unit was out on fault.

5 14:30Hrs, Jebba 2G1 was tied to swap with 2G4.

6 14:31Hrs, Jebba 2G4 was shut down. Load on it was transferred to 2G1.

7 19:13Hrs, Jebba 2G2 was tied. The unit was out on frequency management.

8 20:07Hrs, Omotosho Gas GT6 was tied. The unit was out on frequency management.

9 20:24Hrs, Geregu Gas GT11 was shut down due to gas constraints. Load on it was transferred to GTs 12 & 13.

10 20:33Hrs, Afam VI GT12 was tied. The unit was out on frequency management.

11 21:23Hrs, Odukpami GT5 was tied. The unit was out on line constraint.

**10 SYSTEM BLACK START CAPABILITY**

Delta, Shiroro &amp; Egbin - Available.

**11 (A) COMMUNICATION MEDIA**

STATIONS	NO. INSTALLED	NO. WORKING
PLC/PAX	37	31
OPTIC FIBRE	13	10
PLS	14	5

**11 (B) SCADA RTU STATUS**

STATIONS	NO. INSTALLED	NO OF RTU DISTURBED	NO OF RTU WORKING
POWER STATIONS	8	5	3
330kV	19	5	14
132kV	102	82	20

**12(A) UNAVAILABLE TRANSFORMERS/REACTORS:****SHIRORO REGION:**

- 1 Apo T/S 60MVA 132/33kV transformer TR3 - Burnt.
- 2 Birnin Kebbi 75MX Reactor R1.

**KADUNA REGION:**

- 1 Kumbotso 150MVA 330/132/33kV transformer T1A - Burnt control cables.

**BAUCHI REGION:**

- 1 Gombe T/S -30MX Reactor R2A.

**ENUGU REGION:**

- 1 Onitsha T/S 90MVA 330/132/13.8kV transformer 9T2 - Out due to differential fault.

**LAGOS REGION:**

- 1 Oke-Aro T/S 75MX Reactor R1.

**PORT HARCOURT REGION**

- 1 Ikot-Ekpene T/S: No available reactor.

**12 (B) UNAVAILABLE BREAKERS/ISOLATORS****LAGOS REGION:**

- 1 Akangba T/S. 132kV Bus Coupler CB - Serious Air leakage.(Undergoing repair)
- 2 Egbin/Aja 330kV line 2 (cct N4J) - faulty breaker at Aja T/S.
- 3 Otta/Ogba 132kV line isolator - defective control shaft.
- 4 Osogbo/Ikeja West and Olorunsogo/Ikeja West tie CB at Ikeja West T/S - defective pole
- 5 Oke-Aro/Ikeja West 330kV lines 1 & 2 tie CB at Ikeja West T/S - Defective pole.
- 6 Jebba G.S/Jebba T.S 330kV line 2 CB at Jebba T/S.
- 7 Omotosho/Ikeja West 330kV line CB at Ikeja West T/S.

12 23:31Hrs, Jebba 2G2 was shut down on frequency management.  
Load loss = 72MW.

13 **LACK OF REACTOR AT IKOT-EKPENE T/S IS HINDERING SMOOTH OPERATION.**

**12(D) LAGOS REGION**

- 1 Agbara/Ojo 132kV line 1 on soak from Agbara end.

**SHIRORO REGION:- Nil****12(E) UNAVAILABLE CAPACITOR BANK:**

- (i) Ogba T.S, (ii) Maiduguri T/S, (iii) Isolo T/S, (iv) Ado-Ekiti T/S, (v) Ilorin T/S, (vi) Akure T/S.

**12 (F) LINES WITH MISSING SKY WIRE****LAGOS REGION**

- 1 Omotosho/Ikeja West line (M5W) and Egbin/Ikeja West line 3 (N6W) - 21 spans.
- 2 Ikeja West/Olorunsogo line (cct R1W) - 80 spans.
- 3 330kV Ikeja West/Osogbo line. - 95 spans.
- 4 Ikeja West/Alimosho/Ogba 132kV lines 1 & 2 - 15 spans.
- 5 Ikeja West/Akangba 330kV line 2 - 1 span.
- 6 Ikeja West/ Ilupeju 132kV lines 1 & 2 - 8 spans.
- 7 Akangba/Itire 132kV lines 1 & 2 - 1 span.
- 8 Ikeja West/Agbara 132kV lines 1 & 2 - 61 spans.
- 9 Ikeja West/Otta 132kV lines 1 & 2- 17 spans.

**SHIRORO REGION**

- 1 Jebba T/S 330kV Osogbo lines 1 & 2 and Ganmo line - 9 spans
- 2 Minna T/S 132kV Bida line - 32 spans
- 3 Apo T/S 132kV Keffi line - 36 spans
- 4 Shiroro T/S 330kV Jebba line 2 - 28 spans

**OSOGBO REGION:**

- 1 Omotosho 330kV T/S, 2nd series 330kV CB #3322 out due to control circuit problem.
- 2 Jebba/Osogbo 330kV line 1 (cct J1H) - Defective line isolator mechanism at Osogbo T/S

**ENUGU REGION:**

- 1 New Haven/Yandev 132kV line CB - Faulty Red phase CB pole. Protection is transferred to the bus coupler CB.
- 2 Abakaliki T/S 30MVA 132/33kV transformer T1A and 60MVA 132/33kV transformer T2 primary CBs - Breakers were not provided since commissioning but the transformers are protected by Nkalagu 132kV line CB.
- 3 Oji River T/S 30MVA 132/33kV transformer T1A primary CB - The breaker is completely out of service and bypassed. The transformer is either protected by Onitsha/Oji 132kV line CB or New Haven/Oji 132kV line CB.
- 4 Oturkpo/Yandev 132kV By pass isolator - Canibalized to repair the line isolator.

**SHIRORO REGION**

- 1 Jebba T/S 75MX reactor 2R2 CB - exploded.

**PORT HARCOURT REGION NIL**

**12 (C) UNAVAILABLE/DEFECTIVE GROUND SWITCHES**

**Benin Region**

- 1 Irrua T/S: Benin/Irrua 132kV line Earth Switch - faulty.

**ENUGU REGION:**

- 1 New Haven/Nkalagu 132kV line 2 ground switch - Canibalized Red phase female contact and canibalized Yellow phase male contact.

**12 (G) UNAVAILABLE SYNCHROSCOPES :**

- 1 Benin, Ikeja West, Onitsha, Egbin, Ugwuaji, Osogbo, Kaduna, Jos, Gwagwalada & Alaoji T/S.

**FOR MORE INFORMATION: NCC Telephone Lines -**

- a PAX 09/300, 309, 303 & 305.
- b NCC GSM - 08074888524, 08069379367, 08023572651 & 08051401331. CUG Nos. 08129458488, 08129458489, 08129929806; 08036665323.
- c PLS - 622
- d GM (NCC) - 08036744641.
- e AGM (S/O) - 08056002757, CUG: 08129458475