

# TRANSMISSION COMPANY OF NIGERIA

To: Head (ISO), TCN - Abuja

From: General Manager, NCC, Osogbo

## DAILY OPERATIONAL REPORT OF SATURDAY 02/12/2017

### FOR: EVENTS OF FRIDAY 01/12/2017

#### 1.0 EXECUTIVE OPERATIONS SUMMARY:

##### 1.1 GENERATION PROFILE: NATIONAL STATISTICS

DETAILS	MW	HRS	DATE
PEAK DEMAND FORECAST (CONNECTED + SUPPRESSED LOAD)	17,720	21:15	01/12/2017
GENERATION CAPABILITY	7228.6	-do-	-do-
UNITS ON BAR CAPABILITY AT PEAK	5288.3	-do-	-do-
PEAK GENERATION	4766.6	-do-	-do-
LOWEST GENERATION	3524.3	08:00	01/12/2017
8-HOURLY DURATION PEAK	3809.3	0000-0800	-do-
	3869.2	0900-1600	-do-
	4766.6	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	356	Omotosho T/S	07:00
LOWEST VOLTAGE FOR THE DAY	300	Gombe & Yola T/S	12:00 & 05:00

#### 1.3 FREQUENCY RANGE

DETAILS	HZ	HRS
NOMINAL FREQUENCY	50	
STATUTORY LIMITS	49.75-50.25	
HIGHEST FREQUENCY	50.469	06:15
LOWEST FREQUENCY	50.051	18:49

#### 1.4 SYSTEM COLLAPSE UP DATE

Date of last total collapse: 30th Oct, 2017		No. of days since last total collapse: 34													
Date of last partial collapse: 17th Oct., 2017		No. of days since last partial collapse: 46													
Highest No of days ever attained in-between total collapses: 134		Highest No of days ever attained in-between partial collapses: 240													
		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	412	332
2	JEBBA	437	257
3	SHIRORO	293	95
4	EGBIN ST2 - 5	508	449
5	SAPELE	0	0
6	DELTA	400	459
7	AFAM IV-V	62	63
8	GEREGU GAS	281	148
9	OMOTOSHO GAS	172.4	155.7
10	OLORUNSOGO GAS	131.6	121.6
11	GEREGU NIPP	124	83
12	SAPELE NIPP	203.4	158.5
13	ALAOJI NIPP	0	0
14	OLORUNSOGO NIPP	107.9	96
15	OMOTOSHO NIPP	108.7	95.5
16	ODUKPANI NIPP	312.1	169.3
17	IHOVBOR NIPP	97.7	76.3
18	OKPAI	322	224
19	AFAM VI	414	225
20	IBOM POWER	99.5	61.3
21	ASCO	0	0
22	A.E.S	0	0
23	OMOKU	21.4	21.9
24	TRANS AMADI	41.3	40.6
25	RIVERS IPP	(GAS) 0	0
26	EGBIN ST6	(GAS) 149	124
27	PARAS ENERGY	(GAS) 68.6	68.6
28	GBARAIN NIPP	GAS 0	0
<b>TOTAL</b>		<b>4766.6</b>	<b>3524.3</b>

  

1.6 ENERGY GENERATED/ENERGY SENT OUT:		ENERGY GENERATED		ENERGY SENT OUT		
STATION	TURBINE	MWH	MWH/H	MWH	MWH/H	
1	KAINJI	8603.00	358.46	8587.30	357.80	
2	JEBBA	7267.00	302.79	7244.72	301.86	
3	SHIRORO	4618.00	192.42	4587.46	191.14	
4	EGBIN ST2 - 5	11505.00	479.38	10916.90	454.87	
5	SAPELE	STEAM	0.00		0.00	
6	DELTA	GAS	8754.51	364.77	8686.50	361.94
7	AFAM IV-V	GAS	1470.00	61.25	1465.71	61.07
8	GEREGU GAS	GAS	5437.90	226.58	5413.34	225.56
9	OMOTOSHO GAS	GAS	3833.00	159.71	3800.40	158.35
10	OLORUNSOGO GAS	GAS	3004.14	125.17	2511.70	104.65
11	GEREGU NIPP	GAS	2683.87	111.83	2670.11	111.25
12	SAPELE NIPP	GAS	4230.26	176.26	4209.87	175.41
13	ALAOJI NIPP	GAS		0.00		0.00
14	OLORUNSOGO NIPP	GAS	2557.00	106.54	2511.70	104.65
15	OMOTOSHO NIPP	GAS	2415.30	100.64	2399.60	99.98
16	ODUKPANI NIPP	GAS	4864.91	202.70	4835.55	201.48
17	IHOVBOR NIPP	GAS	2030.00	84.58	2011.78	83.82
18	OKPAI	GAS	6445.00	268.54	6288.30	262.01
19	AFAM VI	GAS	6806.75	283.61	6740.24	280.84
20	IBOM	GAS	1822.51	75.94	1812.00	75.50
21	ASCO	GAS		0.00		0.00
22	A.E.S	GAS		0.00		0.00
23	OMOKU	GAS	522.00	21.75	503.28	20.97
24	TRANS AMADI	GAS	835.90	34.83	812.20	33.84
25	RIVERS IPP	GAS		0.00		0.00
26	EGBIN ST6	STEAM	3292.00	137.17	3108.20	129.51
27	PARAS ENERGY	GAS	1765.70	73.57	1657.20	69.05
28	GBARAIN NIPP	GAS		0.00		0.00
<b>TOTAL</b>		<b>94,763.75</b>	<b>3,948.49</b>	<b>92,774.06</b>	<b>3,865.59</b>	

1.7A

## GENERATION POSITION AT 06:00HRS OF SATURDAY 02/12/2017

	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	374	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	272	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	120	411G3 - Out on maintenance. 411G4 - Out on water management. Generation reduced on frequency management.
	EGBIN STEAM	5	ST2, 4 & 5 3	660	660	ST2, 4 & 5 3	660	471	ST1 - Tripped on generator CB trouble. ST3 - Tripped on high vibration. Generation reduced due to gas constraint.
	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 10	465	405	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	224	GT11 - Shut down due to gas constraint. Generation reduced on frequency management.
	OMOTOSHO GAS	8	GT1 - 8 8	336	304	GT1, 3, 5, 6 & 7 5	190	178.2	GT2, 4 & 8 - Out on frequency management.
	OLORUNSOGO GAS	8	GT1 - 8 8	336	304	GT2, 4, 6 & 8 4	152	139.1	GT1, 3, 5 & 7 - Out on frequency management.
NIPP	GEREGU NIPP	3	GT22 & 23 2	290	290	GT22 1	145	136	GT21 - Out on maintenance. GT23 - Out due to gas constraints.
	SAPELE NIPP	4	GT1 & 2 2	225	225	GT1 & 2 2	225	170.3	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	103.8	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	102.7	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	273.6	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	84.3	GT1 & 2 - Out due to gas constraint. 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	248	GT11 & 12 - Generation reduced on frequency management. 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 2	280	245	GT12 & ST10 - Out on frequency management. Generation reduced on frequency management.
	IBOM POWER GAS	3	GT3 1	115	91.5	GT3 1	91.5	91.5	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	21.6	21.6	GT1 & 6 - Out on fault. GT3 - Out due to gas leakage. GT4 - Awaiting major overhaul. Generation reduced due to gas constraints.
	TRANS-AMADI	4	GT1, 2 & 4 3	75	60	GT1 & 2 2	39	39	GT4 - Shut down due to gas constraints. 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>7143</b>	<b>53</b>	<b>4725.6</b>	<b>3762.1</b>	Frequency = 50.32Hz.

1.7B GENERATION POSITION AT 06:00HRS OF SATURDAY 02/12/2017 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	ON	0100HRS	24HRS	NIL
PTCEXPRESS	6	1000HRS	24HRS	NIL
SANKYO	ON	0100HRS	24HRS	NIL
FEEDER 8	12MW	0900HRS	24HRS	NIL
60MW PARAS ENERGY GENERATION TO CEB				
Ikeja West/Sakete 330KV line	70.2	05:00	24	NIL

1.7C

BILATERAL AGREEMENT UNITS DISPATCH - FRIDAY 01/12/2017

FEEDERS NAME	MAX. LOAD (MW)	TIME (HRS)	HOURS IN SERVICE	REMARK
Egbin ST6 120MW GENERATION TO IKEJA ELECTRICITY DISTRIBUTION COMPANY				
U-STEEL	ON	0100HRS	24HRS	NIL
PTCEXPRESS	6	1000HRS	24HRS	NIL
SANKYO	ON	0100HRS	24HRS	NIL
FEEDER 8	12MW	0900HRS	24HRS	NIL
60MW PARAS ENERGY GENERATION TO CEB				
Ikeja West/Sakete 330KV line	70.2	05:00	24	NIL

FEEDERS NAME	MAX. LOAD (MW)	TIME (HRS)	HOURS IN SERVICE	REMARK
Egbin ST6 120MW GENERATION TO IKEJA ELECTRICITY DISTRIBUTION COMPANY				
U-STEEL	ON	0100HRS	24HRS	NIL
PTCEXPRESS	6	1000HRS	24HRS	NIL
SANKYO	ON	0100HRS	24HRS	NIL
FEEDER 8	12MW	0900HRS	24HRS	NIL
60MW PARAS ENERGY GENERATION TO CEB				
Ikeja West/Sakete 330KV line	70.2	05:00	24	NIL

**1.8 HYDROLOGICAL DATA: SATURDAY 02/12/2017**

	KAINJI	JEBBA	SHIRORO
HEAD WATER ELEVATION (METERS)	141.64	102.2	377.5
TAIL WATER ELEVATION (METERS)	104.10	74.40	270.2
GROSS OPERATING HEAD (METERS)	<b>37.54</b>	<b>27.80</b>	<b>107.30</b>
AVERAGE TURBINE DISCHARGE (M3/SEC)	1062	1200	211
AVERAGE SPILLAGE (M3/SEC)	201	0	0
AVERAGE TOTAL STATION DISCHARGE (M3/SEC)	<b>1263</b>	<b>1200</b>	<b>211</b>
COMPUTED INFLOW (M3/SEC)	1263	1293	24
STORAGE DIFFERENTIAL	0	93	-187
MAXIMUM LEVEL FOR SPILLAGE COMMENCEMENT	141.73	103	382.5
MINIMUM LEVEL BELOW WHICH NO GENERATION	130	99	355

**1.9 MAXIMUM/ALLOCATED LOAD/MINIMUM LOADS FOR ABUJA AND LAGOS AS AT FRIDAY 01/12/2017**

DISCO	MAXIMUM LOAD(MW)	TIME(HRS)	ALLOCATED LOAD (MW)	MINIMUM LOAD(MW)	TIME(HRS)
ABUJA	475.6	20:00	661.22	267.00	10:00
EKO	497.47	22:00	732.47	296.83	10:00
IKEJA	593.6	20:00	1072.46	460.8	11:00

**2.0 GAS POSITION: SATURDAY 02/12/2017**

STATION	SIGNED ACQ Annual Contracted Quantity MMSCF/D	NGC DECLARED QUANTITY (MMS317.578CF/D)	INSTALLED CAPACITY OF THERMAL STATIONS (MW)	PREVIOUS DAY OFF-TAKE (MMSCF/D)	CAPABILITY OF UNITS ON BAR OF THERMAL STATIONS (MW)	DIFFERENCE (MW)
EGBIN P/S	471		1100		660	440
DELTA (GAS)	405		765		565	200
OMOTOSHO GAS	178.2		336.8		190	146.8
OMOTOSHO NIPP	102.7		500		120	380
OLORUNSOGO (GAS)	139.1		336		152	184
OLORUNSOGO NIPP	103.8		750		120	630
SAPELE NIPP	170.3		500		225	275
SAPELE STEAM	0		720		0	720
AFAM IV-V	63		300		63	237
AFAM VI	245		650		280	370
GEREGU GAS	224		435		290	145
GEREGU NIPP	136		435		145	290
OKPAI (GAS/STEAM)	248		480		375	105
ALAOJI NIPP	0		504		0	504
IHOVBOR NIPP	84.3		450		112.5	337.5
IBOM	91.5		198		91.5	106.5
ODUKPANI NIPP	273.6		625		351	274
<b>TOTAL</b>	<b>2935.5</b>		<b>9085.63</b>		<b>3740</b>	<b>5344.8</b>

1 MMSCF IS EQUIVALENT TO 3.75MW

**3.0 SPINNING RESERVE FOR : FRIDAY 01/12/2017**

	(MW)	TIME	FREQUENCY
Maximum (MW)			
Minimum (MW)			
AVERAGE (MW)			

**3.1 SYSTEM SPINNING RESERVE AS AT 0600HRS OF SATURDAY 02/12/2017 = 0MW. FREQUENCY 50.32Hz.**

S/N	POWER STATION	UNIT ON SPINNING RESERVE	CONTRACTED RESERVE	ACTUAL RESERVE (MW)	TOTAL (MW)
1	Egbin	ST2	100	0	0
		ST4		0	
		ST5		0	
		ST6		0	
2	Delta	GT16	40	0	0
		GT17	40	0	
3	Olorunsogo NIPP	GT1	40	0	0
		GT2		0	
		GT3		0	
		GT4		0	
4	Geregu NIPP	GT22	35	0	0
5	Omotosho NIPP	GT1	40	0	0
		GT2		0	
		GT3		0	
		GT4		0	
<b>TOTAL (MW)</b>			<b>295</b>	<b>0</b>	<b>0</b>

**4.0 UNUTILIZED GENERATION CAPABILITY**

The unutilized generation capability for Saturday 02/12/2017 as at 0600Hrs was = 2866.4MW.

S/NO	STATION	ACTUAL GENERATION CAPABILITY (MW)	GENERATION AT 0600HRS (MW)	UNUTILIZED GENERATION CAPABILITY (MW)	SUB-TOTAL
<b>4.1 DUE TO GAS CONSTRAINTS:</b>					
1	Geregu NIPP GT22	145	0	145	982.4
2	Ihovbor GT1 & 2	225	0	225	
3	Alaoji NIPP GT1 & 2	240	0	240	
4	Geregu Gas GT11	145	0	145	
5	Omoku GT2 & 5	40	21.6	18.4	
6	Trans-Amadi GT4	20	0	20	
7	Egbin ST2, 4 & 5	660	471	189	
			0	0	
			0	0	
			0	0	
			0	0	
			0	0	
			0	0	
IT IS ENVISAGED WITH IMPROVED PLANT AVAILABILITY AND RELIEF FROM EXISTING POWER SYSTEM NETWORK RELATED CONSTRAINTS, ADDITIONAL 1425.28MMSCF OF GAS (EQUIVALENT TO 5344.8MW WILL BE REQUIRED WHEN ALL THERMAL UNITS ARE ON BAR.					
<b>4.2 DUE TO LINE CONSTRAINTS</b>					
1	Odukpani NIPP GT3	117	0	117	117
				0	
<b>4.3 DUE TO FREQUENCY MANAGEMENT OCCASIONED BY DISCOS' LOAD DEMAND</b>					
1	Olorunsogo Gas GT1 , 3, 5 & 7	152	0	152	1617
2	Omotosho NIPP GT1	120	0	120	
3	Jebba 2G2 & 4	190	0	190	
4	Afam VI ST10 & GT12	340	0	340	
5	Omotosho Gas GT2, 4 & 8	114	0	114	
6	Olorunsogo NIPP GT2 & 3	240	0	240	
7	Delta GT19	100	0	100	
8	Shiroro 411G1 & 2	300	120	180	
9	Odukpani GT11 & 12	300	185	115	
10	Geregu Gas GT12 & 13	290	224	66	
			0	0	
<b>4.4 DUE TO WATER MANAGEMENT</b>					
1	Shiroro 411G4	150	0	150	150
<b>Total</b>					<b>2866.4</b>

5.0 **OUTAGES:**

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

- 1 10:03 through 24:00Hrs, Delta GT20 tripped on high exhaust temperature spread. LHR = 75MW.
- 2 10:05 - 20:16Hrs, Delta GT18 tripped on high exhaust temperature spread. LHR = 78MW.
- 3 13:55 – 14:28Hrs, Kainji 1G6 tripped on mechanical active group alarm. LHR = 113MW.

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

- 1 05:14 – 13:19Hrs, Makurdi T/S 330kV 75MX Shunt Reactor SR01 tripped on interposing, trip coils 1 & 2, 3-Phases alarm.
- 2 19:01 – 19:15Hrs, Ayede/two/Iseyin 132kV line CB tripped at Ayede T/S on Siemens back up relay, E/F. LHR = 78MW
- 3 21:36 through 24:00Hrs, Ayede T/S 100MVA 132/33kV transformer T1 primary and secondary CBs tripped  
**Primary:** Differential protection relay  
**Secondary:** O/C Relay. Note Red phase cut conductor was found on secondary side of the transformer. LHR = 40MW

5 (C) **PLANNED OUTAGES:-** NIL

5 (D) **URGENT OUTAGES:**

- 1 11:03 – 14:14Hrs, Jebba 2G5 was shut down to clean dirty AVR filter. Load of 93MW was transferred to 2G1.
- 2 12:30 through 24:00Hrs, Kainji/Jebba 330kV line 1 (cct K1J) was taken out due to faulty meter at Kainji T/S. No load interruption as ccts K2J & K3R were in service.
- 3 14:44 – 17:59Hrs, Delta/Effurun 132kV line was taken out for maintenance crew to treat hot spot on the Blue phase down dropper. Load loss = 31.9MW
- 4 16:48 through 24:00Hrs, Delta T/S 60MVA 132/33kV transformer T1 was opened on emergency due to smoke observed on the transformer. Note : Inspection shows that it was the control cable to the cooling fans that were burning. Load loss = 5.4MW

5 (E) **EMERGENCY OUTAGES:-** NIL

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

5 (G) **330KV LINES THAT ARE OUT ON VOLTAGE CONTROL:-** ccts A1S & K4U.

5 (H) **330KV LINES THAT ARE OUT ON BREAKER PROBLEM:-** cct N4J (on soak at Egbin T/S) & K1J (on soak at Jebba T/S0)

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

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

6 **WEATHER REPORT:-** NIL

7 **INTERNATIONAL LINES:-**

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

Maximum load - 264MW at 23:00Hrs.  
Minimum load - 204MW at 07:00Hrs.

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

Maximum load - 90MW at 24:00Hrs.  
Minimum load - 54MW at 07:00Hrs.

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

Maximum load - 31.4MW at 20:00Hrs.  
Minimum load - 19.5MW at 03:00Hrs.

8 **MISCELLANEOUS:-**

- 1 00:37Hrs, Jebba 2G4 was shut down on frequency management. Load loss = 75MW.
- 2 01:19Hrs, Omotosho Gas reduced generation by 40MW. Frequency was 50.43Hz.
- 3 01:24Hrs, Geregu Gas reduced generation by 90MW. Frequency was 50.40Hz.
- 4 05:49Hrs, Ibom Power GT3 was tied. The unit was out on fault.
- 5 06:12Hrs, Trans-Amadi GT3 was tied. The unit was out due to gas constraint.
- 6 06:20Hrs, Jebba 2G2 was tied to swap with 2G1.
- 7 06:21Hrs, Jebba 2G1 was shut down. Load on it was transferred to 2G2.
- 8 07:28Hrs, Egbin P/S reduced generation by 20MW. Frequency was 50.41Hz.
- 9 11:02Hrs, Jebba 2G1 was tied to swap with 2G5.
- 10 12:42Hrs, Shiroro P/S increased generation by 100MW. Frequency was 50.17Hz.
- 11 13:58Hrs, Geregu NIPP increased generation by 20MW. Frequency was 50.17Hz.
- 12 14:15Hrs, Jebba 2G2 was shut down. Load on it was transferred to 2G5.
- 13 18:09Hrs, Jebba 2G4 was tied. The unit was out on frequency management.

**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.

**10 SYSTEM BLACK START CAPABILITY**

Delta, Shiroro & 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.

- 14 18:13Hrs, Ikeja-West T/S 330kV 75MX Reactor R2 was switched off on voltage control. V/P = 318/319kV

- 15 18:42Hrs, Odukanlani NIPP GT4 was tied. The unit was out due to line constraint.

- 16 19:10Hrs, Afam VI GT12 was tied. The unit was out on frequency management.

- 17 21:24Hrs Jebba T/S 330kV 75MX Reactor 2R2 was switched off on voltage control. V/P = 328/330kV

- 18 23:18Hrs, Geregu NIPP GT22 was tied to swap with GT23

- 19 23:19Hrs, Geregu NIPP GT23 was shut down. No load loss as 60MW was transferred to GT22.

- 20 23:39Hrs, Jebba 2G2 was shut down on frequency management. Load loss = 72MW

**21 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.

**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.

**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.

**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

**12 (G) UNAVAILABLE SYNCHROSCOPES :**

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

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

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