

# TRANSMISSION COMPANY OF NIGERIA

To: Head (ISO), TCN - Abuja

From: General Manager, NCC, Osogbo

**DAILY OPERATIONAL REPORT THURSDAY 10/08/2017**

**FOR: EVENTS OF WEDNESDAY 09/08/2017**

**1.0 EXECUTIVE OPERATIONS SUMMARY:**

**1.1 GENERATION PROFILE: NATIONAL STATISTICS**

DETAILS	MW	HRS	DATE
PEAK DEMAND FORECAST (CONNECTED + SUPPRESSED LOAD)	17,720	21:00	09/08/2017
GENERATION CAPABILITY	7377.1	-do-	-do-
UNITS ON BAR CAPABILITY AT PEAK	4872.6	-do-	-do-
PEAK GENERATION	4277	-do-	-do-
LOWEST GENERATION	3022.1	03:00	09/08/2017
	3456.2	0000-0800	-do-
	3398.3	0900-1600	-do-
	4277	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 PEAK GENERATION CAPABILITY TO DATE	7099	07:00	13/04/2014
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	363	Omotosho T/S	03:00
LOWEST VOLTAGE FOR THE DAY	300	Kano, Gombe & Yola T/S	10:00, 11:00 & 11:00

**1.3 FREQUENCY RANGE**

DETAILS	HZ	HRS
NOMINAL FREQUENCY	50	
STATUTORY LIMITS	49.75-50.25	
HIGHEST FREQUENCY	50.54	01:50
LOWEST FREQUENCY	50.106	05:30

**1.4 SYSTEM COLLAPSE UP DATE**

Date of last total collapse: 27th June, 2017		No. of days since last total collapse: 41												
Date of last partial collapse: 19 <sup>th</sup> July, 2017		No. of days since last partial collapse: 21												
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	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	3	1			1				9
	Partial										2	1		4
2015	Total	1		1		2	1				1			6
	Partial	--	--	1		2				1				4
2016	Total	--	--	2	3	6	5		1	1	2	2		22
	Partial	--	--	1		1	3	1						6
2017	Total	5	3		3	1	1							13
	Partial	1		1			1							3

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

STATION	TURBINE	PEAK GEN. (MW)	OFF-PEAK GEN(MW)
1 KAINJI	HYDRO	328	235
2 JEBBA	HYDRO	372	268
3 SHIRORO	HYDRO	549	259
4 EGBIN ST2 - 5	STEAM	370	307
5 SAPELE	STEAM	113	60
6 DELTA	GAS	516	397
7 AFAM IV-V	GAS	0	0
8 GEREGU GAS	GAS	270	120
9 OMOTOSHO GAS	GAS	76.1	76.1
10 OLORUNSOGO GAS	GAS	156.2	155.8
11 GEREGU NIPP	GAS	140	80
12 SAPELE NIPP	GAS	85	80.7
13 ALAOJI NIPP	GAS	78.9	40.5
14 OLORUNSOGO NIPP	GAS	91.3	81.1
15 OMOTOSHO NIPP	GAS	81.5	81.6
16 ODUKPAI NIPP	GAS	116	64.5
17 IHOVBOR NIPP	GAS	110.3	0
18 OKPAI	GAS	300	190
19 AFAM VI	GAS	117	113
20 IBOM POWER	GAS	0	0
21 ASCO	GAS	0	0
22 A.E.S	GAS	0	0
23 OMOKU	GAS	73.7	79.3
24 TRANS AMADI	GAS	18	16.2
25 RIVERS IPP	(GAS)	0	0
26 EGBIN ST6	(GAS)	165	169
27 PARAS ENERGY	(GAS)	64.1	63.4
28 GBARAIN NIPP	GAS	85.9	84.9
<b>TOTAL</b>		<b>4277.0</b>	<b>3022.1</b>

**1.6 ENERGY GENERATED/ENERGY SENT OUT:**

STATION	TURBINE	ENERGY GENERATED		ENERGY SENT OUT	
		MWH	MWH/H	MWH	MWH/H
1 KAINJI	HYDRO	6,341.00	264.21	6,323.40	263.48
2 JEBBA	HYDRO	8,037.00	334.88	8,013.00	333.88
3 SHIRORO	HYDRO	9,601.00	400.04	9,571.51	398.81
4 EGBIN ST2 - 5	STEAM	8,232.00	343.00	7,756.90	323.20
5 SAPELE	STEAM	1,995.80	83.16	1,985.80	82.74
6 DELTA	GAS	9,661.41	402.56	9,432.60	393.03
7 AFAM IV-V	GAS	-	0.00	-	0.00
8 GEREGU GAS	GAS	4,169.90	173.75	4,145.44	172.73
9 OMOTOSHO GAS	GAS	1,821.00	75.88	1,798.20	74.93
10 OLORUNSOGO GAS	GAS	3,758.24	156.59	3,727.47	155.31
11 GEREGU NIPP	GAS	2,100.38	87.52	2,080.16	86.67
12 SAPELE NIPP	GAS	2,021.90	84.25	2,011.10	83.80
13 ALAOJI NIPP	GAS	1,476.47	61.52	1,461.87	60.91
14 OLORUNSOGO NIPP	GAS	1,984.20	82.68	1,951.00	81.29
15 OMOTOSHO NIPP	GAS	1,945.30	81.05	1,930.20	80.43
16 ODUKPAI NIPP	GAS	2,295.70	95.65	2,275.00	94.79
17 IHOVBOR NIPP	GAS	1,474.00	61.42	1,453.39	60.56
18 OKPAI	GAS	4,220.00	175.83	4,062.30	169.26
19 AFAM VI	GAS	2,698.84	112.45	2,658.84	110.79
20 IBOM	GAS	-	0.00	-	0.00
21 ASCO	GAS	-	0.00	-	0.00
22 A.E.S	GAS	-	0.00	-	0.00
23 OMOKU	GAS	1,827.40	76.14	1,788.44	74.52
24 TRANS AMADI	GAS	415.50	17.31	405.10	16.88
25 RIVERS IPP	GAS	-	0.00	-	0.00
26 EGBIN ST6	STEAM	3,965.00	165.21	3,766.10	156.92
27 PARAS ENERGY	GAS	1,509.50	62.90	1,502.00	62.58
28 GBARAIN NIPP	GAS	2,094.50	87.27	2,076.70	86.53
<b>TOTAL</b>		<b>83,646.04</b>	<b>3,485.25</b>	<b>82,176.52</b>	<b>3,424.02</b>

## GENERATION POSITION AT 06:00HRS OF THURSDAY 10/08/2017

	STATIONS	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	1G5, 6, 11 & 12	440	440	1G5, 6, 11 & 12	440	322	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.
		4			4			
	JEBBA HYDRO	2G2 - 5	386	380	2G2 - 5	371	371	2G1 - Out on maintenance. 2G6 - Out due to burnt generator winding and AVR.
		4			4			
	SHIRORO HYDRO	411G1 - 4	600	600	411G1 - 4	500	482	411G1 - 3 - Load reduced due to high frequency.
		4			4			
	EGBIN STEAM	ST2, 4 & 5	660	660	ST2 & 4	440	304	ST1 - Tripped on generator CB trouble. ST3 - Tripped on high vibration. ST5 - Out for frequency management.
		3			2			
	SAPELE (STEAM)	ST2	120	48	ST 2	48	48	ST1 - Tripped on low drum level. ST4 & 5 - Awaiting major overhaul. ST6 - Tripped on gas control valve not following reference point.
	DELTA (GAS)	GT4, 7, 10 - 13, 15, 16, 18 & 19	565	535	GT4, 7, 10 - 13, 15, 16, 18 & 19	535	423	GT3 & 5 - Out due to generator winding fault. GT6 & 8 - Out on maintenance. GT9 - Tripped on excitation system major trouble. GT14 - Out on major overhaul. GT17 - Out on excitation trouble. GT20 - Out on major inspection.
10		10						
AFAM IV & V (GAS)	0	0	0	0	0	0	GT1 - 12 - De-commissioned and scrapped. GT13 - 16 - Out on blade failure. GT17 & 18 - Out due to burnt generator transformer. GT19 & 20 - Awaiting major overhaul.	
	0			0				
GEREGU GAS	GT11 & 13	290	290	GT11 & 13	290	80	GT12 - Out on maintenance.	
	2			2				
OMOTOSHO GAS	GT1 - 8	336	304	GT1, 5 & 7	114	76.7	GT2, 3, 4, 6 & 8 - Out for frequency management.	
	8			3				
OLORUNSOGO GAS	GT1 - 8	336	304	GT1, 2, 6 & 7	152	104.3	GT3, 5 & 8 - Out for frequency management. GT4 - Shut down due to high frequency.	
	8			4				
GEREGU NIPP	GT21 & 22	290	290	GT22	145	68	GT21 - Out due to gas constraints. GT23 - Tripped on ventilation system trip.	
	2			1				
SAPELE NIPP	GT4	112.5	112.5	0	0	0	GT1 - Out on undisclosed fault. GT2 - Out due to auxiliary oil pump problem. GT3 - Out on bearing lift pump trouble. GT4 - On standby due to high frequency.	
	1			0				
ALAOJI NIPP GAS	GT1, 2 & 4	375	360	0	0	0	GT1 - On standby due to high frequency. GT2 - On standby due to high frequency. GT3 - Shut down due to generator air inlet filter trouble. GT4 - Out due to gas constraints.	
	3			0				
OLORUNSOGO NIPP GAS	GT1 - 3	375	360	GT1	120	107.4	GT2 & 3 - Out for frequency management. GT4 & ST2 - Out of production since 25/10/2016.	
	3			1				
OMOTOSHO NIPP GAS	GT1, 2 & 4	375	360	GT1	120	80.5	GT2 - Out for frequency management. GT3 - Out of production since 02/08/2016. GT4 - Out due to gas constraints.	
	3			1				
ODUKPANI NIPP	GT1	125	120	GT1	114.9	114.9	GT2 - Tripped on busbar 1 under voltage. GT3 & 5 - Out due to internal problem. GT4 - Out on unit transformer problem.	
	1			1				
IHOVBOR NIPP	GT1 - 3	337.5	337.5	GT2	110.3	110.3	GT1 - Out for frequency management. GT3 - Out due to tripping of ccts H7V & V7B.	
	3			1				
GBARAIN NIPP GAS	GT2	112.5	112.5	0	0	0	GT2 - On standby due to high frequency.	
	1			0				
OKPAI GAS/STEAM	GT11, 12 & ST18	450	305	GT11, 12 & ST18	305	223	Generation limited to 305MW due to high system frequency	
	3			3				
AFAM VI GAS/STEAM	GT11, 13 & ST10	433.3	433.3	GT11	150	110	GT12 - Shut down due to power oil pump system fault. GT13 & ST10 - Out for frequency management.	
	3			1				
IBOM POWER GAS	0	0	0	0	0	0	GT2 - Out due to the fire outbreak on the control panel. GT3 - Out on maintenance work. Generation reduced due to high air inlet differential pressure.	
	0			0				
AES	0	0	0	0	0	0	Out of production since 27/09/2014.	
	0			0				
ASCO	0	0	0	0	0	0	GT1 - Shut down due to leakage in the furnace.	
	0			0				
OMOKU GAS	GT1, 2, 5 & 6	100	80	GT1, 2, 5 & 6	80	73.9	GT3 - Out on maintenance.	
	4			4				
TRANS-AMADI	GT4	25	20	GT4	18	18	Available unit on bar.	
	1			1				
RIVERS	0	0	0	0	0	0	Out of production since 16/09/2016.	
	0			0				
	<b>SUB TOTAL</b>	<b>72</b>	<b>6843.8</b>	<b>6451.8</b>	<b>48</b>	<b>4053.2</b>	<b>3117</b>	Frequency = 50.22Hz.

1.7B GENERATION POSITION AT 06:00HRS OF THURSDAY 10/08/2017 FOR UNITS ON BILATERAL AGREEMENT

EGBIN	ST6	220	220	ST6	160	160	Available unit on bar.
	1			1			
PARAS ENERGY	GT2, 3, 6 - 9	55	55	GT2, 3, 6 - 9	55	55	GT4 - Shut down due to exhaust problem. GT5 - Out on maintenance.
SUB TOTAL	6	7	288.8	6	215	215	
GRAND TOTAL	7	79	7132.6	7	4,268.20	3,332.00	Frequency = 50.22Hz.

1.7C BILATERAL AGREEMENT UNITS DISPATCH - WEDNESDAY 09/08/2017

FEEDERS NAME	MAX. LOAD (MW)	TIME (HRS)	HOURS IN SERVICE	REMARK
Egbin ST6 120MW GENERATION TO IKEJA ELECTRICITY DISTRIBUTION COMPANY				
U-STEEL	ON	0100hrs	24	Nil
PTCEXPRESS	11	0900hrs	24	Nil
SANKYO	ON	0100hrs	24	Nil
FEEDER B	10	0900hrs	24	Nil
PULK IT	1	1400hrs	24	Nil
INDUSTRIAL	18	2000hrs	24	Nil
SPINTEX	5	0900hrs	24	Nil
DANGOTE	3	1600hrs	24	Nil
LAND CRAFT	on	0100hrs	24	Nil
TR4 15MVA	4.6	1800hrs	24	Nil
TR5 -15MVA	4.1	0700hrs	24	Nil
ALAUUSA	13.3	1100hrs	24	Nil
PTC (MARYLAND)	13	1500hrs	24	Nil
<b>TOTAL LOAD</b>	<b>83</b>			

BILATERAL AGREEMENT LOAD DISPATCH  
60MW PARAS ENERGY GENERATION TO CEB

FEEDER	MAX	TIME	HOURS IN SERVICE	REMARK
IKEJA WEST/SAKATE 330kV LINE	64.7	20:00	24	Nil

**1.8 HYDROLOGICAL DATA: THURSDAY 10/08/2017**

	KAINJI	JEBBA	SHIRORO
HEAD WATER ELEVATION (METERS)	137.08	103.09	367.46
TAIL WATER ELEVATION (METERS)	104.93	74.80	271.00
GROSS OPERATING HEAD (METERS)	<b>32.15</b>	<b>28.29</b>	<b>96.46</b>
AVERAGE TURBINE DISCHARGE (M3/SEC)	923	1282	482
AVERAGE SPILLAGE (M3/SEC)	0	263	0
AVERAGE TOTAL STATION DISCHARGE (M3/SEC)	<b>923</b>	<b>1545</b>	<b>482</b>
COMPUTED INFLOW (M3/SEC)	2381	1580	519
STORAGE DIFFERENTIAL	<b>1458</b>	<b>35</b>	<b>37</b>
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 WEDNESDAY 09/08/2017**

DISCO	MAXIMUM LOAD(MW)	TIME(HRS)	ALLOCATED LOAD (MW)	MINIMUM LOAD(MW)	TIME(HRS)
ABUJA	466.8	14:00	521.55	275.8	07:00
EKO	431.8	21:00	555.39	354.26	04:00
IKEJA	516.9	22:00	694.63	390.2	04:00

**2.0 GAS POSITION: THURSDAY 10/08/2017**

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	304		1100		440	660
DELTA (GAS)	408		765		535	230
OMOTOSHO GAS	76.7		336.8		114	222.8
OMOTOSHO NIPP	80.5		500		120	380
OLORUNSOGO (GAS)	104.3		336		152	184
OLORUNSOGO NIPP	107.4		750		120	630
SAPELE NIPP	0		500		0	500
SAPELE STEAM	48		720		48	672
AFAM IV-V	0		300		0	300
AFAM VI	110		650		150	500
GEREGU GAS	80		435		290	145
GEREGU NIPP	68		435		145	290
OKPAI (GAS/STEAM)	223		480		305	175
ALAOJI NIPP	0		504		0	504
IHOVBOR NIPP	110.2		450		110.3	339.7
IBOM	0		198		0	198
ODUKPANI NIPP	114.9		625		114.7	510.3
<b>TOTAL</b>	<b>1835</b>		<b>9084.80</b>		<b>2644</b>	<b>6440.8</b>

1 MMSCF IS EQUIVALENT TO 3.75MW

**SYSTEM BLACK START CAPABILITY**

Delta, Shiroro & Egbin - Available.

**SPINNING RESERVE FOR : WEDNESDAY 09/08/2017**

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

**3.0 SYSTEM SPINNING RESERVE AS AT 0600HRS OF THURSDAY 10/08/2017 = 0MW. FREQUENCY 50.22Hz.**

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	
3	Delta	GT16	40	0	0
		GT17	40	0	
4	Olorunsogo NIPP	GT1	40	0	0
		GT2		0	
		GT3		0	
		GT4		0	
5	Geregu NIPP	GT22	35	0	0
6	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 Thursday 10/08/2017 as at 0600Hrs was = 1727.8MW.

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 GT21	145	0	145	385
2	Alaoji NIPP GT4	120	0	120	
3	Omotosho NIPP GT4	120	0	120	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
IT IS ENVISAGED WITH IMPROVED PLANT AVAILABILITY AND RELIEF FROM EXISTING POWER SYSTEM NETWORK RELATED CONSTRAINTS, ADDITIONAL 1717.54MMWSCF OF GAS (EQUIVALENT TO 6440.8MW) WILL BE REQUIRED WHEN ALL THERMAL UNITS ARE ON BAR.					
<b>4.2 DUE TO LINE CONSTRAINTS</b>					
				0	0
				0	
				0	
<b>4.3 DUE TO FREQUENCY MANAGEMENT OCCASIONED BY DISCOS' LOAD DEMAND</b>					
1	Afam VI GT13 & ST10	283.3	0	283.3	1342.8
2	Ihovbor GT1	112.5	0	112.5	
3	Olorunsogo NIPP GT2 & 3	240	0	240	
4	Omotosho Gas GT2, 3, 4, 6 & 8	190	0	190	
5	Shiroro 411GT-3	375	332	43	
6	Olorunsogo Gas GT3, 5 & 8	114	0	114	
7	Omotosho NIPP GT2	120	0	120	
8	Alaoji NIPP GT1 & 2	240	0	240	
				0	
				0	
				0	
				0	
<b>4.4 DUE TO WATER MANAGEMENT</b>					
				0	1727.8
<b>Total</b>					

**5.0 OUTAGES:**

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

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

- 1 14:03 – 14:22Hrs, New Haven/Oji Rivers 132kV line CB tripped at New Haven T/S on O/C 3-Phases, stage 1 distance protection and lockout relay. LHR = 12MW.
- 2 17:03 – 20:00Hrs, Alaoji/Umuahia 132kV line 2 CB tripped at Alaoji T/S on Micom distance protection relay – Z1, B-N, duration = 105ms, location = 43km. The line was on soak.

**5 (C) PLANNED OUTAGES:**

- 1 00:25 through 24:00Hrs, Paras Energy GT5 was shut down for maintenance on the unit. LHR = 8.5MW.
- 2 08:10 - 19:39Hrs, Okpai GT11 was shut down for maintenance on the unit. LHR = 52MW.
- 3 12:25 through 24:00Hrs, Ihovbor T/S 330kV Bus bar 2 was taken out to enable Azura contractor install isolators and excavate soil for conduit pipes connection of the earthing wires etc. No load interruption as bus bar 1 was in service.
- 4 10:35 - 13:00Hrs, Gombe/Jalingo 330kV line bay was released for preventive maintenance. No load interruption as the bay was already out of service.

**5(D) URGENT OUTAGES:**

- 1 12:20 – 14:33Hrs, Akangba T/S 90MVA 330/132/33kV transformer was taken out of service for maintenance crew and MBH contractor to seal point of oil leakage on the primary C.T. No load interrupted as 3x90MVA 330/132/33kV transformers 5T1A, 5T1B & 5T2B were in service.
- 2 12:24 – 13:57Hrs, Otta T/S 40MVA 132/33kV transformer T1 was taken out to top up low SF6 gas pressure of primary GCB to normal level. Load loss = 10MW.

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

GROUP 1 - ALL UNITS OFFERING FREE GOVERNOR FREQUENCY RESPONSE.

GROUP 2 - ALL UNITS OFFERING REGULATING RESERVE.

GROUP 3 - ALL UNITS OFFERING SPINNING RESERVE.

GROUP 4 - HYDRO IN HIGH FLOOD PERIOD SEASON, KAINJI, JEBBA AND SHIRORO.

GROUP 5 - ALL UNITS USED TO AVOID OVERLOADING TRANSMISSION LIMITS.

GROUP 6 - ALL UNITS OFFERING VOLTAGE SUPPORT OUTSIDE NORMAL LEVEL.

GROUP 7 - ALL UNITS IN LOCATION TO DIMINISH LOSSES

GROUP 8 - ALL UNITS NOT OFFERING ANY SERVICES.

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

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

**5 (G) 330KV LINES THAT ARE OUT ON VOLTAGE CONTROL:-** cct L7G & U2A.

**5 (I) 330KV LINES THAT ARE OUT ON BREAKER PROBLEM:-** ccts K1J, A2K & N4J.

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

**5 (K) 330KV LINES THAT ARE OUT ON LINE FAULT:-** cct M5W

**9 WEATHER REPORT:** Rainfall reported at Kano, Kaduna, Alaoji,

**10 INTERNATIONAL LINES:-**

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

Maximum load - 185MW at 21:00Hrs.

Minimum load - 89MW at 02:00Hrs.

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

Maximum load - 82.0MW at 14:00Hrs.

Minimum load - 61MW at 19:00Hrs.

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

Maximum load - 35.2MW at 20:00Hrs.

Minimum load - 26.2MW at 08:00Hrs.

**11 MISCELLANEOUS:-**

1 00:02 – 05:55Hrs, Shiroro 411G2 was shut down for frequency management. LHR = 54MW.

2 00:04Hrs, Delta P/S was instructed to reduce generation by 100MW. Frequency was 50.49Hz.

3 00:47 – 06:32Hrs, Jebba 2G2 was shut down for frequency management. LHR = 75MW.

4 01:00Hrs, Odukpiani NIPP was instructed to reduce generation by 40MW. Frequency was 50.48Hz.

5 01:20Hrs, Geregu Gas was instructed to reduce generation by 60MW. Frequency was 50.45Hz.

6 01:42Hrs, Sapele NIPP was instructed to reduce generation by 22MW. Frequency was 50.43Hz.

7 01:48Hrs, Ihovbor NIPP was instructed to reduce generation by 20MW. Frequency was 50.52Hz.

8 01:59Hrs, Shiroro P/S was instructed to reduce generation by 100MW. Frequency was 50.52Hz.

9 01:59Hrs, Egbin P/S was instructed to reduce generation by 55MW. Frequency was 50.48Hz.

10 02:08 – 08:26Hrs, Ihovbor NIPP GT1 was shut down for frequency management. LHR = 81MW.

11 02:52Hrs, Gbarain was instructed to reduce generation by 30MW. Frequency was 50.33Hz.

12 05:11 - 18:46Hrs of 08/08/2017, Papalanto T/S 30MVA 132/33kV transformer T3 tripped on Buchholz relay. LHR = 3MW.

8 (A) **COMMUNICATION MEDIA**

STATIONS	NO. INSTALLED	NO. WORKING
PLC/PAX	37	35
OPTIC FIBRE	13	10
PLS	14	5

8 (B) **SCADA RTU STATUS**

STATIONS	TOTAL NO OF STATIONS	NO OF RTU INSTALLED	NO OF RTU WORKING
POWER STATIONS	23	8	3
330kV	41	17	12
132kV	119	103	19

- 13 06:20Hrs, Egbin P/S was instructed to increase generation by 55MW. Frequency was 49.80Hz.
- 14 07:14Hrs, Delta P/S was instructed to reduce generation by 50MW. Frequency was 50.31Hz.
- 15 08:10Hrs, Okpai GT11 was shut down for maintenance on the unit. LHR = 52MW.
- 16 08:47Hrs, Odukpani NIPP was instructed to reduce generation by 30MW. Frequency was 50.39Hz.
- 17 08:50Hrs, Sapele ST1 was tied. The unit was out on fault.
- 18 10:28Hrs, Ihovbor NIPP was tied. The unit was out for frequency management.
- 19 11:04Hrs, Delta P/S was instructed to reduce generation by 60MW. Frequency was 50.43Hz.
- 20 11:06 - 18:37Hrs, Kainji 1G12 was shut down for frequency management. LHR = 63MW.
- 21 12:05Hrs, Egbin P/S was instructed to reduce generation by 55MW. Frequency was 50.44Hz.
- 22 12:07Hrs, Delta P/S was instructed to reduce generation by 50MW. Frequency was 50.43Hz.
- 23 13:04Hrs, Alaoji T/S 330kV 75MX Reactor was taken out of service for voltage control. Voltage Profile: 341/341kV.
- 24 13:23Hrs, Okpai GT11 was declared available. The unit was out on maintenance.
- 25 13:25Hrs, Alaoji/Ikot-Ekpena line 2 was opened on voltage control. Voltage Profile: 346/342kV.
- 26 16:35Hrs, Alaoji NIPP GT1 was tied to swap with GT2. The unit had been out due to gas constraints.
- 27 16:44Hrs, Alaoji NIPP GT2 was shut down and the load was transferred to GT1.
- 28 17:02Hrs, Alimosho T/S 100MVA 132/33kV transformer T2 was restored after the shattered secondary CB had been replaced with another one. The transformer tripped at 13:13Hrs of 06/08/2017.
- 29 17:07Hrs of 08/08/2017, Trans-Amadi GT4 was tied. The unit was out due to faulty breaker.
- 30 18:34Hrs, Shiroro G/S was instructed to increase generation on one unit to base load. Frequency was 50.16Hz.
- 31 18:51Hrs, Shiroro G/S was instructed to increase generation on 411G1 & 3 to base load. Frequency was 50.18Hz.
- 32 19:09Hrs, Kainji was instructed to increase generation to 90MW on 1G5 and Geregu gas was also instructed to increase generation to maximum on one unit. Frequency was 50.134Hz.
- 33 19:12Hrs, Ihovbor NIPP was instructed to increase generation to 100MW. Frequency was 50.14Hz.
- 34 19:18Hrs, Delta G/S was instructed to increase generation by 50MW. Frequency was 50.176Hz.
- 35 19:24Hrs, Geregu Gas was instructed to increase generation by 45MW.
- 36 19:45Hrs, Geregu NIPP was instructed to increase generation to base load with the unit on free governor.
- 37 22:14Hrs, Geregu Gas was instructed to reduce generation to minimum on one of its units. Frequency was 50.36Hz.
- 38 22:19Hrs, Delta G/S was instructed to reduce generation by 50MW. Frequency was 50.51Hz.
- 39 22:21Hrs, Okpai G/S was instructed to reduce generation by 50MW. Frequency was 50.344Hz.
- 40 22:37Hrs, Shiroro G/S was instructed to reduce generation to 50MW on one of the unit. Frequency was 50.382Hz.
- 41 22:43Hrs, Delta G/S was instructed to reduce generation by 50MW. Frequency was 50.351Hz.
- 42 22:50Hrs, Okpai G/S was instructed to reduce generation by 50MW.
- 43 22:58Hrs, Geregu Gas was instructed to reduce generation on one of its units to 100MW.

## 12.0 UNAVAILABLE EQUIPMENTS

### 12(A) UNAVAILABLE TRANSFORMERS/REACTORS:

#### SHIRORO REGION:

- 1 Apo T/S 60MVA 132/33kV transformer TR3 - Burnt.

#### KADUNA REGION:

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

#### ENUGU REGION:

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

### 12 (B) UNAVAILABLE BREAKERS/SOLATORS

#### 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/Yendev 132kV line CB - Faulty Red phase CB pole. Protection is transferred to the bus coupler CB.
- 2 Abakiliki 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/Yendev 132kV By pass isolator - Canibalized to repair the line isolator.

#### SHIRORO REGION

- 1 Kainji/Jebba 330kV line 1 - CB problem at Kainji T/S.
- 2 Jebba T/S 75MX reactor 2R2 CB - exploded.

- 44 23:02Hrs, Kainji G/S was instructed to reduce generation on 1G5 to 75MW.
- 45 23:03Hrs, Geregu NIPP was instructed to reduce generation on its unit to 100MW from 145MW. Frequency was 50.404Hz.
- 46 23:16Hrs, Egbin G/S was instructed to reduce generation by 55MW. Frequency was 50.372Hz.
- 47 23:23Hrs, Olorunsogo Gas GT8 was shut down for frequency management. LHR = 28MW.
- 48 23:54Hrs, Sapele ST1 was shut down for frequency management. LHR = 55MW.

### 12(D) LAGOS REGION

- 1 Egbin/Aja 330kV line 2 (cct N4J) - faulty breaker at Aja T/S.
- 2 Agbara/Ojo line 1 on soak.

#### 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/tire 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

### 12 (G) UNAVAILABLE SYNCHROSCOPES :

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

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

- a PAX 09/300, 309, 303 & 305.

**PORT HARCOURT REGION**

- 1 Alaoji/kot-Ekpene 330KV line 2 (cct A2K) Yellow Phase isolator not latching properly.

**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.

- 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