

TRANSMISSION COMPANY OF NIGERIA

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

DAILY OPERATIONAL REPORT OF TUESDAY 05/02/2019

FOR: EVENTS OF MONDAY 04/02/2019

1.0 EXECUTIVE OPERATIONS SUMMARY:

1.1 GENERATION PROFILE: NATIONAL STATISTICS

DETAILS	MW	HRS	DATE
PEAK DEMAND FORECAST (CONNECTED + SUPPRESSED LOAD)	23,960	21:30	04/02/2019
GENERATION CAPABILITY	5821.9	-do-	-do-
UNITS ON BAR CAPABILITY AT PEAK	5379.9	-do-	-do-
PEAK GENERATION	4962.1	-do-	-do-
LOWEST GENERATION	3572.9	08:00	04/02/2019
8-HOURLY DURATION PEAK	4260.1	0100-0800	-do-
	4260.1	0900-1600	-do-
	4962.1	1700-2400	-do-
PEAK GENERATION TO DATE	5222.3	21:00	18/12/2017
MAXIMUM AVAILABLE CAPACITY TO DATE	7652.6	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	347	Omotosho & Lokoja T/S	08:00
LOWEST VOLTAGE FOR THE DAY	300	Gombe & Yola T/S	06:00 & 20:00

1.3 FREQUENCY RANGE

DETAILS	HZ	HRS
NOMINAL FREQUENCY	50	
STATUTORY LIMITS	49.75-50.25	
HIGHEST FREQUENCY	50.36	22:17
LOWEST FREQUENCY	49.92	10:18

1.4 SYSTEM COLLAPSE UP DATE

Date of last total collapse: 25th Jan., 2019		No. of days since last total collapse: 11												
Date of last partial collapse: 12th April, 2018		No. of days since last partial collapse: 298												
Highest No of days ever attained in-between total collapses: 134		Highest No of days ever attained in-between partial collapses: 241												
	Jan	Feb.	Mar.	Apr	May	Jun	Jul	Aug	Sep.	Oct	Nov	Dec	Total	
2010	Total	---	3	1	--	3	3	--	2	2	1	4	22	
	Partial	1	--	--	1	1	3	4	4	3	--	1	20	
2011	Total	--	--	--	--	4	3	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	4	2	22	
	Partial	--		--	--	--	--	--	2				2	
2014	Total	2			2	0	3	1	0	0	1	0	9	
	Partial			0	0	1	0	0	0	0	2	1	4	
2015	Total	1	0	1	0	2	0	1	0	0	1	0	6	
	Partial	--	--	1	0	2	0	0	0	1	0	0	4	
2016	Total	--	--	2	3	6	5	0	0	1	2	2	22	
	Partial	--	--	1	0	1	3	1	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	
2018	Total	5	1	0	0	0	1	1				1	11	
	Partial	0	0	0	1	0		0					1	
2019	Total	4											4	
	Partial												0	

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

STATION	TURBINE	PEAK GEN. (MW)	OFF-PEAK GEN.(MW)
1 KAINJI	HYDRO	394	122
2 JEBBA	HYDRO	376	261
3 SHIRORO	HYDRO	440	100
4 EGBIN ST2 - 5	STEAM	437	414
5 SAPELE	STEAM	0	0
6 DELTA	GAS	275	262
7 AFAM IV-V	GAS	50	48
8 GEREGU GAS	GAS	255	217
9 OMOTOSHO GAS	GAS	127.8	131.8
10 OLORUNSOGO GAS	GAS	163.7	204.8
11 GEREGU NIPP	GAS	232	160
12 SAPELE NIPP	GAS	91.4	95.3
13 ALAOJI NIPP	GAS	74.3	71.7
14 OLORUNSOGO NIPP	GAS	107.5	109.2
15 OMOTOSHO NIPP	GAS	106.6	104.9
16 ODUKPANI NIPP	GAS	303.4	194
17 IHOVBOR NIPP	GAS	99.3	68.9
18 OKPAI	GAS	184	171
19 AFAM VI	GAS	272	133
20 IBOM POWER	GAS	91.9	77.5
21 ASCO	GAS	0	0
22 A.E.S	GAS	0	0
23 OMOKU	GAS	0	58
24 TRANS AMADI	GAS	0	0
25 RIVERS IPP	(GAS)	150	110
26 AZURA - EDO IPP	(GAS)	421	150
27 EGBIN ST6	(GAS)	150	155
28 PARAS ENERGY	(GAS)	65.1	63.2
29 GBARAIN NIPP	GAS	95.1	90.6
TOTAL		4962.1	3572.9

1.6 ENERGY GENERATED/ENERGY SENT OUT:

STATION	TURBINE	ENERGY GENERATED		ENERGY SENT OUT	
		MWH	MWH/H	MWH	MWH/H
1 KAINJI	HYDRO	8462.00	352.58	8445.40	351.89
2 JEBBA	HYDRO	8259.00	344.13	8236.40	343.18
3 SHIRORO	HYDRO	4095.00	170.63	4061.76	169.24
4 EGBIN ST2 - 5	STEAM	9808.00	408.67	9269.80	386.24
5 SAPELE	STEAM	0.00	0.00	0.00	0.00
6 DELTA	GAS	6191.70	257.99	6114.20	254.76
7 AFAM IV-V	GAS	1165.70	48.57	1160.30	48.35
8 GEREGU GAS	GAS	5343.00	222.63	5315.77	221.49
9 OMOTOSHO GAS	GAS	3061.00	127.54	3037.30	126.55
10 OLORUNSOGO GAS	GAS	4675.71	194.82	4644.31	193.51
11 GEREGU NIPP	GAS	5312.65	221.36	5292.68	220.53
12 SAPELE NIPP	GAS	2269.53	94.56	2247.59	93.65
13 ALAOJI NIPP	GAS	1760.94	73.37	1757.70	73.24
14 OLORUNSOGO NIPP	GAS	1930.50	80.44	1901.60	79.23
15 OMOTOSHO NIPP	GAS	2525.90	105.25	2507.00	104.46
16 ODUKPANI NIPP	GAS	4993.50	208.06	4960.30	206.68
17 IHOVBOR NIPP	GAS	2279.49	94.98	2260.38	94.18
18 OKPAI	GAS	4305.00	179.38	4205.80	175.24
19 AFAM VI	GAS	4043.71	168.49	3965.00	165.21
20 IBOM	GAS	2097.85	87.41	2089.00	87.04
21 ASCO	GAS	0.00	0.00	0.00	0.00
22 AZURA - EDO IPP	GAS	5498.20	229.09	5477.50	228.23
23 A.E.S	GAS	0.00	0.00	0.00	0.00
24 OMOKU	GAS	553.10	23.05	538.28	22.43
25 TRANS AMADI	GAS	0.00	0.00	0.00	0.00
26 RIVERS IPP	GAS	2989.00	124.54	2977.20	124.05
27 EGBIN ST6	STEAM	3485.00	145.21	3294.20	137.26
28 PARAS ENERGY	GAS	1586.00	66.08	1581.80	65.91
29 GBARAIN NIPP	GAS	2244.00	93.50	2232.00	93.00
TOTAL		98,935.48	4,122.31	97,573.27	4,065.55

1.7A GENERATION POSITION AT 06:00HRS OF TUESDAY 05/02/2019

	STATIONS	NO OF UNITS INSTALLED	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) AT 50.24Hz.	REMARKS
PRIVATISED COMPANIES	KAINJI HYDRO	8	1G5, 6, 11 & 12 4	440	440	1G5, 6, 11 & 12 4	440	395	1G5, 6, 11 & 12 - On frequency response. 1G7 - Out on stator winding failure. 1G8 - Out due to oil leakage on governor runner head. 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 - 4 4	380	375	2G1 - 4 4	375	375	2G5 - Out for annual maintenance. 2G6 - Out due to burnt generator winding and AVR.
	SHIRORO HYDRO	4	411G1 - 4 4	600	600	411G1 & 3 2	300	105	411G1 & 3 - Generation reduced due to low load demand by the Discos. 411G2 & 4 - Out for water management.
	EGBIN STEAM	6	ST2, 4, 5 & 6 4	880	587	ST2, 4, 5 & 6 4	565	565	ST1 - Out due to the unit transformer problem. ST3 - Out on high vibration since 19th June 2017.
	SAPELE (STEAM)	6	0 0	0	0	0 0	0	0	ST1 & 2 - Tripped on high vibration. ST3 - Tripped on low water drum level. ST4 - Out on fault. ST5 - Awaiting major overhaul.
	DELTA (GAS)	18	GT7, 10 - 13, 19 & 20 7	310	310	GT7, 10 - 13, 19 & 20 7	310	282	GT2 - Tripped on transformer differential lockout. GT3 & 5 - Out on generator winding fault. GT4 - Out on loss of excitation. GT6 - Shut down due to oil leakage. GT8 & 14 - Out on major overhaul. GT9, 15 & 16 - Out due to gas constraint. GT17 - Tripped on bearing vibration more than maximum. GT18 - Out due to generator lockout problem. GT20 - On frequency response.
	AFAM IV & V (GAS)	8	GT1 1	125	50	GT17 1	50	50	GT11 - 12 - De-commissioned and scrapped. GT13, 14 & 16 - Out on blade failure. GT18 - Out due to gas constraint. GT19 & 20 - Awaiting major overhaul.
	GEREGU GAS	3	GT11 - 13 3	435	435	GT12 & 13 2	290	226	GT11 - Out due to line limitation. GT12 - Generation reduced due to low load demand by the Discos. GT13 - On frequency response.
	OMOTOSHO GAS	8	GT1, 2, 6 & 7 4	168	131	GT1, 2, 6 & 7 4	131	131	GT3, 4, 5 & 8 - Out due to gas constraint.
	OLORUNSOGO GAS	8	GT1 - 8 8	336	304	GT1,2,4,5 & 7 5	170	170	GT3, 6 & 8 - Out due to low load demand by the Discos.
NIPP	GEREGU NIPP	3	GT21 & 23 2	290	290	GT21 & 23 2	290	229	GT21 - Generation reduced due to low load demand by the Discos. GT22 - Out on maintenance. GT23 - On frequency response.
	SAPELE NIPP	4	GT2 1	112.5	112.5	GT2 1	112.5	91.5	GT1 - Out due to gas constraint. GT2 - On frequency response. GT3 & 4 - Out due to high air filter differential pressure.
	ALAOJI NIPP GAS	4	GT2 1	120	74.5	GT2 1	74.5	74.5	GT1 - Out due to high air inlet differential pressure. GT3 - Shut down due to lack of spare part. GT4 - Tripped on over voltage lockout relay trip.
	OLORUNSOGO NIPP	6	GT1 1	126	107.5	GT1 1	107.5	107.5	GT2 - 3 - Shut down due to low gas pressure. GT4 - Out due to ignition failure and control relay failure alarm. ST13 & ST23 - Out on maintenance.
	OMOTOSHO NIPP GAS	4	GT2 1	125	115	GT2 1	115	106.6	GT1, 3 & 4 - Out due to gas constraint. GT2 - On frequency response.
	ODUKPANI NIPP	5	GT2, 3, 4 & 5 4	460	460	GT3 & 4 2	230	209.3	GT1 - Out on fault. GT2 & 5 - Out due to low load demand by the Discos. GT3 & 4 - On manual adjustment to frequency.
	IHOVBOR NIPP	4	GT2 1	112.5	112.5	GT2 1	112.5	102.7	GT1 & 4 - Out due to gas constraint. GT2 - On manual adjustment to frequency. GT3 - Tripped on high vibration.
	GBARAIN NIPP GAS	1	GT2 1	112.5	112.5	GT2 1	112.5	94.2	GT2 - On frequency response.
IPP	OKPAI GAS/STEAM	3	GT12 & ST18 2	300	220	GT12 & ST18 2	220	174	GT11 - out on maintenance. GT12 - On frequency response. ST18 - Generation limited due to boiler problem.
	AZURA - EDO	3	GT11 - 13 3	461	461	GT12 & 13 2	461	210	GT11 - Out due to low load demand by the Discos. GT12 - Generation reduced due to low load demand by the Discos. GT13 - On frequency response.
	AFAM VI GAS/STEAM	4	GT12 & 13 2	300	300	GT13 1	150	134	GT11 - Out on maintenance. GT12 - Out on low load demand by the Discos. GT13 - On frequency response. ST10 - Out on gas constraint.
	IBOM POWER GAS	3	GT3 1	120	115	GT3 1	115	82.8	GT1 & 2 - Out due to fire outbreak on the control panel. GT3 - On manual adjustment to frequency.
	AES	9	0 0	0	0	0 0	0	0	Out of production since 27/09/2014.
	ASCO	2	0 0	0	0	0 0	0	0	ST1 - Shut down due to leakage in the furnace.
	OMOKU GAS	6	0 0	0	0	0 0	0	0	GT1, 3 & 5 - Out for installation of gas metering equipment on the main gas supply line. GT2 - Tripped on high vibration. GT4 - Out on major overhaul. GT6 - Out on maintenance.
	TRANS-AMADI	4	0 0	0	0	0 0	0	0	GT1 & 2 - Out due to low gas pressure. GT3 - Out on fault. GT4 - out on maintenance.
	RIVERS	1	GT1 1	180	160	GT1 1	160	121	Generation reduced due to low load demand by the Discos.
	SUB TOTAL	141	60	6493.5	5872.5	50	4891.5	4036.1	Frequency = 50.20Hz.

1.7B GENERATION POSITION AT 06:00HRS OF TUESDAY 05/02/2019 FOR UNITS ON BILATERAL AGREEMENT										
PARAS ENERGY	8	GT3 -10		70	64.8	GT3 -10		64.8	64.8	Available units on bar.
		8				8				
SUB TOTAL		8	8	70	64.8	8	64.8	64.8		
GRAND TOTAL		149	68	6563.5	5937.3	58	4,956.30	4,100.90	Frequency = 50.20Hz	

1.7C BILATERAL AGREEMENT UNITS DISPATCH - MONDAY 04/02/2019									
EGBIN ST6 5MW GENERATION TO IKEJA ELECTRICITY DISTRIBUTION COMPANY									
FEEDERS NAME	MAX. LOAD (MW)	TIME (HRS)	MIN LOAD (MW)	TIME (HRS)	HRS IN SERVICE	TOTAL (MWH)	REMARK		
OGBA	U-STEEL	ON	0100HRS		24		NIL		
	PTC EXPRESS	ON	0100HRS		24		NIL		
	SANKYO	2.5	1600HRS		24		NIL		
	FEEDER 8	16	0900HRS		24		NIL		
IKORODU	PULK IT				24		NIL		
	INDUSTRIAL	9	0800HRS		23		T2-60MVA SEC. CB WAS OPENED TO WORK ON T1/T2 BUS COUPLER ISOLATOR		
	SPINTEX	7	2300HRS		24		NIL		
	DANGOTE	2	0600HRS		17		TRIPPED ON EEF RELAY		
	LAND CRAFT	14	0100HRS		24		NIL		
ALAUUSA	TR4 15MVA	7.4	2000HRS		24		NIL		
	TR5 -15MVA	6.4	1600HRS		24		NIL		
	ALAUUSA	16.6	1000HRS		24		NIL		
M/LAND	PTC (MARYLAND)	20	1500HRS		24		NIL		
TOTAL LOAD									

BILATERAL AGREEMENT LOAD DISPATCH 60MW PARAS ENERGY GENERATION TO CEB OF MONDAY 04/02/2019							
FEEDER	MAX LOAD (MW)	TIME (HRS)	MIN LOAD (MW)	TIME (HRS)	HOURS IN SERVICE	TOTAL (MWH)	REMARK
Ikeja West/Sakete 330kV line	68.8	06:00	62.4	22:00	24	1586	NIL

BILATERAL AGREEMENT MAIN STREAM ENERGY KAINJI MONDAY 04/02/2019									
COMPANY NAME	VOL-TAGE LEVEL	CON-TRACTUAL LOAD (MW)	MAX LOAD (MW)	TIME	MIN LOAD (MW)	TIME	HOURS IN SERVICE	TOTAL (MWH)	REMARK
INNER GALAXY	132kV line 2	0	ON	ON	ON	ON	ON	ON	ON
KAM STEEL		25.0	10.6	14:00	0.2	07:00	24	40	SUPPLY NOT INTERRUPTED
ASHAKA CEMENT		0	5.3	04:00	0.8	08:00	24	90.1	SUPPLY NOT INTERRUPTED
XING 1	33kV feeder	0	20.9	01:00	0.5	19:00	24	147.8	SUPPLY NOT INTERRUPTED
XING 2		0	19:12	02:00	0.3	22:00	24	120.1	SUPPLY NOT INTERRUPTED
KAM INTEGRATED		15	4.4	08:00	1.5	13:00	24	63.8	SUPPLY NOT INTERRUPTED
OLAM FLOUR MILLS		3	2.1	21:00	0.8	24:00	24	38	SUPPLY NOT INTERRUPTED
LORDSMITH		3	0.6	18:00	0.4	01:00	24	11.4	SUPPLY NOT INTERRUPTED

1.8 HYDROLOGICAL DATA: MONDAY 04/02/2019

	KAINJI	JEBBA	SHIRORO
HEAD WATER ELEVATION (METERS)	141.69	103.30	374.19
TAIL WATER ELEVATION (METERS)	105.2	74.2	270.0
GROSS OPERATING HEAD (METERS)	36.49	29.10	104.19
AVERAGE TURBINE DISCHARGE (M3/SEC)	1061.00	1255.00	197.00
AVERAGE SPILLAGE (M3/SEC)	393.00	312.00	0.00
AVERAGE TOTAL STATION DISCHARGE (M3/SEC)	1454.00	1567.00	197.00
COMPUTED INFLOW (M3/SEC)	1586.00	1393.00	0.00
STORAGE DIFFERENTIAL	132.00	-174.00	-197
MAXIMUM LEVEL FOR SPILLAGE COMMENCEMENT	141.73	103	382.50
MINIMUM LEVEL BELOW WHICH NO GENERATION	130	99	355.00

1.9 MAXIMUM/ALLOCATED LOAD/MINIMUM LOADS FOR ABUJA AND LAGOS AS AT MONDAY 04/02/2019

	MAXIMUM LOAD (MW)	TIME (HRS)	ALLOCATED LOAD (MW)	MINIMUM LOAD (MW)	TIME (HRS)
ABUJA					
EKO					
IKEJA					

2.0 GAS POSITION: TUESDAY 05/02/2019

STATION	SIGNED ACQ Annual Contracted Quantity MMSCF/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	582	1100		565	535
DELTA (GAS)	266	915		310	605
OMOTOSHO GAS	127.9	336.8		131	205.8
OMOTOSHO NIPP	107	500		120	380
OLORUNSOGO (GAS)	233.1	336		170	166
OLORUNSOGO NIPP	0	750		107.5	642.5
SAPELE NIPP	87.8	500		112.5	387.5
SAPELE STEAM	0	720		0	720
AFAM IV-V	0	300		50	250
AFAM VI	136	650		150	500
GEREGU GAS	268	435		290	145
GEREGU NIPP	252	435		290	145
OKPAI (GAS/STEAM)	236	480		220	260
ALAOJI NIPP	72.8	504		74.5	429.5
IHOV/BOR NIPP	92.4	337.5		112.5	225
IBOM	93.6	198		115	83
ODUKPANI NIPP	199.1	625		230	395
TOTAL	2753.7	9122.30		3048	6074.3

1 MMSCF IS EQUIVALENT TO 3.75MW

3.0 SPINNING RESERVE FOR : MONDAY 04/02/2019

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

3.1 SYSTEM SPINNING RESERVE AS AT 0600HRS OF TUESDAY 05/02/2019 = 0MW, FREQUENCY 50.24Hz.

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
		GT1		0	
5	Omotosho NIPP	GT2	40	0	0
		GT3		0	
				0	
		GT4		0	
TOTAL (MW)			295	0	0

4.0 UNAVAILABLE GENERATION CAPABILITY

The unavailable generation capability for Tuesday 05/02/2019 as at 0600Hrs was = 1461MW.

S/N	STATION	ACTUAL GENERATION CAPABILITY (MW)	GENERATION AT 0600HRS (MW)	UNAVAILABLE GENERATION CAPABILITY (MW)	SUB-TOTAL
4.1 DUE TO LINE CONSTRAINTS					
1	Geregu Gas GT11	145	0	145	145
				0	
				0	
				0	
4.2 DUE TO LOW LOAD DEMAND BY THE DISCOS					
1	Shiroro 411G2 & 4	300	105	195	1016
2	Alam VI GT12	150	0	150	
3	Olorunsogo Gas GT1 - 8	304	170	134	
4	Azura-Edo GT11 & 12	307	150	157	
5	Odukpani GT2 & 5	230	0	230	
6	Rivers GT1	160	121	39	
7	Geregu Gas GT11	145	80	65	
8	Geregu NIPP GT21	145	99	46	
				0	
4.3 DUE TO WATER MANAGEMENT:					
1	Shiroro 411G1 & 4	300	0	300	300
Grand Total					1461

5.0 OUTAGES:

5 (A) FORCED OUTAGES (GENERATION):

- 1 20:36 - 21:08Hrs, Delta GT20 tripped on generator differential lock out. LHR = 96.0MW

5 (B) FORCED OUTAGES (TRANSMISSION):

- 1 20:36 - 21:17Hrs, Delta/Sapele 330kV (cct S4G) tripped at both ends on the following relay indications:
At Sapele T/S:
SEL relay: E/F Yellow phase zone 1
At Delta T/S:
Siprotec relay: Trip O/C Blue phase, zone 1 trip, E/F, O/C PU. IPL3, PU time = 16ms, trip time = 94ms, distance = 71.9km. No load loss as cct G3B was in service.

5 (C) PLANNED OUTAGES:-

- 1 09:45Hrs, Omoku GT3 was shut down for installation of gas metering equipment on the main gas supply line. Load loss = 20MW
2 09:48Hrs, Omoku GT5 was shut down for installation of gas metering equipment on the main gas supply line. Load loss = 20.5MW
3 09:53Hrs, Omoku GT1 was shut down for installation of gas metering equipment on the main gas supply line. Load loss = 16MW

5 (D) URGENT OUTAGES:- NIL

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 2A - UNITS FROM ODUKPANI, AZURA, SHELL AFAM VI, AGIP OKPAI, OLORUNSOGO POWER PLC AND OMOTOSHO POWER PLC.

GROUP 2B - OTHER GENERATING 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 CONTRACTED 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 (NOT YET IDENTIFIED).

5 (E) EMERGENCY OUTAGES:- NIL

5 (F) AUTOMATIC UNDER FREQUENCY OPERATION:- Nil.

5 (G) 330KV LINES THAT ARE OUT ON VOLTAGE CONTROL:- ccts A1S & U1A.

5 (H) 330KV LINES THAT ARE OUT ON BREAKER PROBLEM:- cct A1K.

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

5 (J) 330KV LINES THAT ARE OUT ON LINE FAULT:- ccts D3T, J2H & K4U

5 (K) 330KV LINES THAT ARE ON SOAK:- ccts F1K & N4J

6 WEATHER REPORT:- Rainfall reported at New Haven

7 INTERNATIONAL LINES:-

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

Maximum load - 262MW at 18:00Hrs.
Minimum load - 211MW at 08:00Hrs.

B BIRNIN KEBBI/NIAMEY 132KV LINE

Maximum load - 100MW at 16:00Hrs.
Minimum load - 59.0MW at 05:00Hrs.

C KATSINA/GAZAOUA/MARADI 132KV LINE

Maximum load - 32.7MW at 20:00Hrs.
Minimum load - 15.6MW at 05:00Hrs.

8 MISCELLANEOUS:-

- 1 00:07 - 12:15Hrs, Olorunsogo Gas GT3 was shut down.No load loss as 30.7MW was transferred to GT7.
2 01:14 - 19:34Hrs, Afam VI GT12 was shut down due to low load demand by the Discos. Load loss = 134MW
3 03:42 - 05:15Hrs, Jebba 2G2 was shut down due to low load demand by the Discos. Load loss = 65MW
4 05:38Hrs, Olorunsogo NIPP GT1 was tied. The unit was out due to low gas pressure.
5 06:55 through 24:00Hrs, Olorunsogo Gas GT8 was shut down due to low load demand by the Discos. Load loss = 30.9MW
6 07:32 - 10:17Hrs, Jebba 2G2 was shut down due to low load demand by the Discos. Load loss = 78MW
7 07:53 - 21:05Hrs, Azura-Edo GT13 was shut down due to low load demand by the Discos. Load loss = 75MW
8 11:54Hrs, Odukpai NIPP GT5 was tied to swap with GT4.
9 12:09 - 21:09Hrs, Odukpai NIPP GT4 was shut down. No load loss as 107.5MW was transferred to GT5.
10 12:56 through 24:00Hrs, Olorunsogo gas GT6 was shut down. No load loss as 34.2MW was transferred to GT3.
11 14:31 through 24:00Hrs, Olorunsogo gas GT3 was shut down due to low load demand by the Discos. Load loss = 30MW
12 19:27Hrs, Ugwuaji /kot-Ekpene 330kV line 3 cct K3U was restored. The line was out on voltage control.
13 20:04Hrs, Shiroro 411G1 was tied. The unit was out for water management.

10 **COMMUNICATION MEDIA**

STATIONS	NO INSTALLED	NO. WORKING
PLC/PAX	38	34
OPTIC FIBRE	13	12
PLS	14	4

11 **SCADA RTU STATUS**

STATIONS	NO. INSTALLED	NO OF RTU DISTURBED	NO OF RTU WORKING
POWER STATIONS	8	4	4
330kV	19	7	12
132kV	102	80	22

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

SHIRORO REGION:

- 1 Birnin Kebbi 75MX Reactor R1.

ABUJA REGION

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

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 reactor installed.

12 (B) **UNAVAILABLE BREAKERS/ISOLATORS**

LAGOS REGION:

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

BENIN REGION:

- 1 Omotosho T/S 330kV, 2nd series 330kV CB #3322 out due to control circuit problem.

ENUGU REGION:

- New Haven/Yandev 132kV line CB - Faulty Red phase CB pole. Protection is transferred to the bus coupler CB.
- Abakaliki T/S 30MVA 132/33kV transformer T1A and 60MVA 132/33kV transformer T2 primary CBs - Breakers were not provided since commissioning but the
- 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.
- Oturkpo/Yandev 132kV By pass isolator - Canibalized to repair the line isolator.
- 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 75MX reactor 2R2 CB - exploded.

**** THE SCADA COVERAGE OF ONLY LIMITED AREAS IS NOT GOOD FOR THE SMOOTH OPERATION OF THE GRID.

**** LACK OF REACTOR AND UNRELIABLE STATION SERVICE SUPPLY AT IKOT-EKPENE T/S ARE HINDERING SMOOTH OPERATION

12(D) **UNAVAILABLE CAPACITOR BANK:**

- 1 (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(E) **UNAVAILABLE SKYWIRES**

LAGOS REGION

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

SHIRORO REGION

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

ABUJA REGION

- 1 Apo T/S 132kV Keffi line - 36 spans

12 (F) **UNAVAILABLE SYNCHROSCOPES :**

- 1 Ikeja West, Onitsha, Egbin, Ugwuajii, Jos, Gwagwalada & Alaoji T/S.

FOR MORE INFORMATION: NCC Telephone Lines -

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

