

TRANSMISSION COMPANY OF NIGERIA

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

DAILY OPERATIONAL REPORT OF MONDAY 04/02/2019

FOR: EVENTS OF SUNDAY 03/02/2019

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	03/02/2019
GENERATION CAPABILITY	5704.4	-do-	-do-
UNITS ON BAR CAPABILITY AT PEAK	5221.5	-do-	-do-
PEAK GENERATION	4976.1	-do-	-do-
LOWEST GENERATION	3642.1	10:00	03/02/2019
8-HOURLY DURATION PEAK	4509.1	0100-0800	-do-
	4293.3	0900-1600	-do-
	4976.1	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	Lokoja T/S	09:00
LOWEST VOLTAGE FOR THE DAY	300	Gombe T/S	12:00

1.3 FREQUENCY RANGE

DETAILS	HZ	HRS
NOMINAL FREQUENCY	50	
STATUTORY LIMITS	49.75-50.25	
HIGHEST FREQUENCY	50.35	08:05
LOWEST FREQUENCY	49.90	10:37

1.4 SYSTEM COLLAPSE UP DATE

		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
Date of last total collapse: 25th Jan., 2019														No. of days since last total collapse: 10
Date of last partial collapse: 12th April, 2018														No. of days since last partial collapse: 297
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	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	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
2018	Total	5	1	0	0	0	1	1					1	11
	Partial	0	0	0	1	0	0							1
2019	Total	4												4
	Partial													

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

STATION	TURBINE	PEAK GEN. (MW)	OFF-PEAK GEN.(MW)
1 KAINJI	HYDRO	415	384
2 JEBBA	HYDRO	382	259
3 SHIRORO	HYDRO	436	115
4 EGBIN ST2 - 5	STEAM	424	325
5 SAPELE	STEAM	0	0
6 DELTA	GAS	281	278
7 AFAM IV-V	GAS	48	47
8 GEREGU GAS	GAS	275	208
9 OMOTOSHO GAS	GAS	127.4	127.8
10 OLORUNSOGO GAS	GAS	225.8	196
11 GEREGU NIPP	GAS	244	221
12 SAPELE NIPP	GAS	104.9	88.5
13 ALAOJI NIPP	GAS	72.7	0
14 OLORUNSOGO NIPP	GAS	0	0
15 OMOTOSHO NIPP	GAS	107.5	103.6
16 ODUKPANI NIPP	GAS	221.3	196.5
17 IHOVBOR NIPP	GAS	108.8	106.3
18 OKPAI	GAS	184	168
19 AFAM VI	GAS	247	132
20 IBOM POWER	GAS	97.4	87.1
21 ASCO	GAS	0	0
22 A.E.S	GAS	0	0
23 OMOKU	GAS	57.2	58.3
24 TRANS AMADI	GAS	0	0
25 RIVERS IPP	(GAS)	151	80
26 AZURA - EDO IPP	(GAS)	435	150
27 EGBIN ST6	(GAS)	155	155
28 PARAS ENERGY	(GAS)	68	63.2
29 GBARAIN NIPP	GAS	108.1	92.8
TOTAL		4976.1	3642.1

1.6 ENERGY GENERATED/ENERGY SENT OUT:

STATION	TURBINE	ENERGY GENERATED		ENERGY SENT OUT	
		MWH	MWH/H	MWH	MWH/H
1 KAINJI	HYDRO	9576.00	399.00	9560.10	398.34
2 JEBBA	HYDRO	8359.00	348.29	8336.52	347.36
3 SHIRORO	HYDRO	5159.00	214.96	5126.35	213.60
4 EGBIN ST2 - 5	STEAM	8640.00	360.00	8164.40	340.18
5 SAPELE	STEAM	0.00	0.00	0.00	0.00
6 DELTA	GAS	6314.00	263.08	6192.10	258.00
7 AFAM IV-V	GAS	1140.70	47.53	1135.80	47.33
8 GEREGU GAS	GAS	5798.30	241.60	5771.34	240.47
9 OMOTOSHO GAS	GAS	3055.00	127.29	3032.20	126.34
10 OLORUNSOGO GAS	GAS	5097.94	212.41	5067.28	211.14
11 GEREGU NIPP	GAS	5783.87	240.99	5765.45	240.23
12 SAPELE NIPP	GAS	2328.80	97.03	2307.00	96.13
13 ALAOJI NIPP	GAS	1180.85	49.20	1178.20	49.09
14 OLORUNSOGO NIPP	GAS	0.00	0.00	0.00	0.00
15 OMOTOSHO NIPP	GAS	2537.80	105.74	2522.00	105.08
16 ODUKPANI NIPP	GAS	4693.00	195.54	4662.50	194.27
17 IHOVBOR NIPP	GAS	2502.00	104.25	2478.33	103.26
18 OKPAI	GAS	4311.00	179.63	4179.10	174.13
19 AFAM VI	GAS	4808.56	200.36	4727.00	196.96
20 IBOM	GAS	2165.30	90.22	2157.00	89.88
21 ASCO	GAS	0.00	0.00	0.00	0.00
22 AZURA - EDO IPP	GAS	6675.85	278.16	6655.15	277.30
23 A.E.S	GAS	0.00	0.00	0.00	0.00
24 OMOKU	GAS	1381.10	57.55	1361.60	56.73
25 TRANS AMADI	GAS	0.00	0.00	0.00	0.00
26 RIVERS IPP	GAS	2998.40	124.93	2977.20	124.05
27 EGBIN ST6	STEAM	3732.00	155.50	3533.40	147.23
28 PARAS ENERGY	GAS	1593.60	66.40	1587.20	66.13
29 GBARAIN NIPP	GAS	2264.20	94.34	2252.40	93.85
TOTAL		102,096.27	4,254.01	100,729.62	4,197.07

1.7A GENERATION POSITION AT 06:00HRS OF MONDAY 04/02/2019

	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 50.20Hz.	REMARKS
PRIVATISED COMPANIES	KAINJI HYDRO	8	1G5, 6, 11 & 12 4	440	440	1G5, 6, 11 & 12 4	440	392	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	360	2G1 - 4 4	360	319	2G5 - Out for annual maintenance. 2G6 - Out due to burnt generator winding and AVR.
	SHIRORO HYDRO	4	411G1 - 4 4	600	600	411G2 & 3 2	300	100	411G1 & 4 - Out for water management. 411G2 & 3 - Generation reduced due to low load demand by the Discos.
	EGBIN STEAM	6	ST2, 4, 5 & 6 4	880	537	ST2, 4, 5 & 6 4	537	537	ST1 - Out due to the unit transformer problem. ST3 - Out on high vibration since 19th June 2017. ST4 - Still loading up.
	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	270	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.
	AFAM IV & V (GAS)	8	GT1 1	125	48	GT17 1	48	48	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	234	GT11 - Out due to line limitation. GT12 - Generation reduced due to low load demand by the Discos.
	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 - 8 7	266	236.2	GT3 - 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.
	SAPELE NIPP	4	GT2 1	112.5	112.5	GT2 1	112.5	93.7	GT1 - Out due to gas constraint. GT3 & 4 - Out due to high air filter differential pressure.
	ALAOJI NIPP GAS	4	GT2 1	120	72.9	GT2 1	72.9	72.9	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	101.4	GT1 1	101.4	101.4	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	108.7	GT1, 3 & 4 - Out due to gas constraint. GT2 - On manual adjustment to frequency.
	ODUKPANI NIPP	5	GT2, 3, 4 & 5 4	460	460	GT3 & 4 2	230	204.1	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	GT1 1	112.5	112.5	GT1 1	112.5	112.5	GT1 - On manual adjustment to frequency. GT2 & 4 - Out due to gas constraint. GT3 - Tripped on high vibration.
	GBARAIN NIPP GAS	1	GT2 1	112.5	112.5	GT2 1	112.5	98.5	Available unit on bar.
IPP	OKPAI GAS/STEAM	3	GT12 & ST18 2	300	220	GT12 & ST18 2	220	179	GT11 - out on maintenance. ST18 - Generation limited due to boiler problem.
	AZURA - EDO	3	GT11 - 13 3	461	461	GT11 - 13 3	461	289	GT11 & 12 - Generation reduced due to low load demand by the Discos.
	AFAM VI GAS/STEAM	4	GT12 & 13 2	300	300	GT13 1	150	139	GT11 - Out on maintenance. GT12 - Out on low load demand by the Discos. ST10 - Out on gas constraint.
	IBOM POWER GAS	3	GT3 1	120	115	GT3 1	115	93.7	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	GT1, 3 & 5 3	75	55.6	GT1, 3 & 5 3	55.6	55.6	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	110	Generation reduced due to low load demand by the Discos.
	SUB TOTAL	141	63	6568.5	5853.4	56	4990.4	4154.3	Frequency = 50.20Hz.

1.7B GENERATION POSITION AT 06:00HRS OF MONDAY 04/02/2019 FOR UNITS ON BILATERAL AGREEMENT									
	PARAS ENERGY	8	GT3 -10	70	68.8	GT3 -10	68.8	68.8	Available units on bar.
			8			8			
	SUB TOTAL	8	8	70	68.8	8	68.8	68.8	
	GRAND TOTAL	149	71	6638.5	5922.2	64	5,059.20	4,223.10	Frequency = 50.20Hz

1.7C BILATERAL AGREEMENT UNITS DISPATCH - SUNDAY 03/02/2019									
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	3	0200HRS			24		NIL	
	FEEDER 8	12	1500HRS			24		NIL	
IKORODU	PULK IT	5	1400HRS			23		O/S DUE TO URGENT OUTAGE ON 33KV BUS COUPLER ISOLATOR	
	INDUSTRIAL	7	2100HRS			23		O/S DUE TO URGENT OUTAGE ON 33KV BUS COUPLER ISOLATOR	
	SPINTEX	6	0600HRS			24		NIL	
	DANGOTE	2	0100HRS			23		O/S DUE TO URGENT OUTAGE ON 33KV BUS COUPLER ISOLATOR	
	LAND CRAFT	22	2300HRS			24		NIL	
ALAUUSA	TR4 15MVA	6	1600HRS			23		FORCED OUTAGE DISTRIBUTION	
	TR5 -15MVA	3.7	1500HRS			24		NIL	
	ALAUUSA	9.7	1100HRS			18		PLANNED OUTAGE DISTRIBUTION	
M/LAND	PTC (MARYLAND)	17	1500HRS			24		NIL	
	TOTAL LOAD								

BILATERAL AGREEMENT LOAD DISPATCH									
60MW PARAS ENERGY GENERATION TO CEB OF SUNDAY 03/02/2019									
FEEDER	MAX LOAD (MW)	TIME (HRS)	MIN LOAD (MW)	TIME (HRS)	HOURS IN SERVICE	TOTAL (MWH)	REMARK		
Ikeja West/Sakete 330kV line	68.8	15:00	63.2	10:00	24	1593.6	NIL		
BILATERAL AGREEMENT MAIN STREAM ENERGY KAINJI SUNDAY 03/02/2019									
COMPANY NAME	VOL-TAGE LEVEL	CON-TRAC-TUAL LOAD (MW)	MAX LOAD (MW)	TIME	MIN LOAD (MW)	TIME	HOURS IN SERVICE	TOTAL (MWH)	REMARK
INNER GALAXY	132kV line 2	0	26	09:00	20	05:00	24	116	SUPPLY NOT INTERRUPTED
KAM STEEL		25.0	2	02:00	0.2	01:00	24	18.6	SUPPLY NOT INTERRUPTED
ASHAKA CEMENT		0	5.4	20:00	3.1	10:00	24	111.1	SUPPLY NOT INTERRUPTED
XING 1	33kV feeder	0	22.9	07:00	6.35	19:00	24	436.7	SUPPLY NOT INTERRUPTED
XING 2		0	14:24	06:00	3.7	09:00	24	352.35	SUPPLY NOT INTERRUPTED
KAM INTEGRATED		15	4.1	13:00	1.4	02:00	24	53.7	SUPPLY NOT INTERRUPTED
OLAM FLOUR MILLS		3	2	02:00	0.6	17:00	24	37.3	SUPPLY NOT INTERRUPTED
LORDSMITH		3	0.4	10:00	0.3	04:00	24	9.2	SUPPLY NOT INTERRUPTED

1.8 HYDROLOGICAL DATA: MONDAY 04/02/2019

	KAINJI	JEBBA	SHIRORO
HEAD WATER ELEVATION (METERS)	141.68	103.35	374.28
TAIL WATER ELEVATION (METERS)	105.3	73.7	270.4
GROSS OPERATING HEAD (METERS)	36.38	29.65	103.88
AVERAGE TURBINE DISCHARGE (M3/SEC)	1207.00	1243.00	242.00
AVERAGE SPILLAGE (M3/SEC)	422.00	24.00	0.00
AVERAGE TOTAL STATION DISCHARGE (M3/SEC)	1629.00	1267.00	242.00
COMPUTED INFLOW (M3/SEC)	1497.00	1580.00	63.00
STORAGE DIFFERENTIAL	-132.00	313.00	-179
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 SUNDAY 03/02/2019

	MAXIMUM LOAD (MW)	TIME (HRS)	ALLOCATED LOAD (MW)	MINIMUM LOAD (MW)	TIME (HRS)
ABUJA	577.4	13:00	544.18	435.8	08:00
EKO	468.5	15:00	572.69	320.2	09:00
IKEJA	536.8	24:00	644.58	365.7	13:00

2.0 GAS POSITION: MONDAY 04/02/2019

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		537	563
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		266	70
OLORUNSOGO NIPP	0	750		101.4	648.6
SAPELE NIPP	87.8	500		112.5	387.5
SAPELE STEAM	0	720		0	720
AFAM IV-V	0	300		48	252
AFAM VI	136	650		300	350
GEREGU GAS	268	435		290	145
GEREGU NIPP	252	435		290	145
OKPAI (GAS/STEAM)	236	480		220	260
ALAOJI NIPP	72.8	504		72.9	431.1
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		3256.3	5866

1 MMSCF IS EQUIVALENT TO 3.75MW

3.0 SPINNING RESERVE FOR : SUNDAY 03/02/2019

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

3.1 SYSTEM SPINNING RESERVE AS AT 0600HRS OF MONDAY 04/02/2019 = 0MW, FREQUENCY 50.20Hz.

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	
TOTAL (MW)			295	0	0

4.0 UNAVAILABLE GENERATION CAPABILITY

The unavailable generation capability for Monday 04/02/2019 as at 0600Hrs was = 1270MW.

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 & 3	300	100	200	825
2	Afam VI GT12	150	0	150	
3	Olorunsogo Gas GT3	38	0	38	
4	Azura-Edo GT11 & 12	307	150	157	
5	Odukpani GT2 & 5	230	0	230	
6	Rivers GT1	160	110	50	
				0	
				0	
4.3 DUE TO WATER MANAGEMENT:					
1	Shiroro 411G1 & 4	300	0	300	300
Grand Total					1270

5.0 OUTAGES:

5 (A) FORCED OUTAGES (GENERATION):

1 21:31 through 24:00Hrs, Shiroro 411G1 tripped on protection shut down. LHR = 141MW

5 (B) FORCED OUTAGES (TRANSMISSION): NIL

5 (C) PLANNED OUTAGES:-

1 00:19 through 24:00Hrs, Okpai GT11 was shut down for maintenance. Load loss = 121MW

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:- NIL

7 INTERNATIONAL LINES:-

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

Maximum load - 276MW at 21:00Hrs.

Minimum load - 187MW at 08:00Hrs.

B BIRNIN KEBBI/NIAMEY 132KV LINE

Maximum load - 78MW at 20:00Hrs.

Minimum load - 52.0MW at 06:00Hrs.

C KATSINA/GAZAOUA/MARADI 132KV LINE

Maximum load - 30MW at 21:00Hrs.

Minimum load - 15.9MW at 04:00Hrs.

8 MISCELLANEOUS:-

1 00:28 - 18:40Hrs, Shiroro 411G2 was shut down for water management. Load loss = 50MW

2 02:17 - 08:57Hrs, Jebba 2G2 was shut down due to low load demand by the Discos. Load loss = 83MW

3 05:30Hrs, Egbin ST4 was tied. The unit was out due to oil leakage.

4 07:43 - 14:19Hrs, Alaoji NIPP GT2 was shut down due to low load demand by the Discos.

Load loss = 50MW

5 08:21 - 21:15Hrs, Afam VI GT12 was shut down due to low load demand by the Discos.

Load loss = 75MW

6 08:42 - 19:11Hrs, Azura-Edo GT13 was shut down due to low load demand by the Discos. Load loss = 75MW

7 08:58 - 10:35Hrs, Jebba 2G3 was shut down due to low load demand by the Discos.

Load loss = 95MW

8 15:16Hrs, Ihovbor GT2 was tied to swap with GT1

9 15:38Hrs, Ihovbor GT1 was shut down. No load loss as 95.7MW was transferred to GT2.

10 21:31Hrs, Olorunsogo gas GT7 was tied. The unit was out due to low load demand by the Discos.

11 21:41Hrs, Shiroro 411G4 was tied. The unit was out due to water management.

12 23:08 through 24:00Hrs, Shiroro 411G4 was shut down on water management. Load loss = 150MW

**** 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.

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:

- 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 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:

- 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
- 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.
- 5 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.

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

- 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 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, Uguwaji, 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

