

TRANSMISSION COMPANY OF NIGERIA

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

DAILY OPERATIONAL REPORT OF THURSDAY 03/01/2019
FOR: EVENTS OF WEDNESDAY 02/01/2019

1.0 EXECUTIVE OPERATIONS SUMMARY:

1.1 GENERATION PROFILE: NATIONAL STATISTICS

DETAILS	MW	HRS	DATE
PEAK DEMAND FORECAST (CONNECTED + SUPPRESSED LOAD)	23,020	21:30	02/01/2019
GENERATION CAPABILITY	5639.7	-do-	-do-
UNITS ON BAR CAPABILITY AT PEAK	4750.1	-do-	-do-
PEAK GENERATION	4750.1	-do-	-do-
LOWEST GENERATION	3532.2	04:00	02/01/2019
8-HOURLY DURATION PEAK	3941	0100-0800	-do-
	4222.3	0900-1600	-do-
	4750.1	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	348	Lokoja T/S	04:00
LOWEST VOLTAGE FOR THE DAY	300	Kumbotso T/S	11:00

1.3 FREQUENCY RANGE

DETAILS	HZ	HRS
NOMINAL FREQUENCY	50	
STATUTORY LIMITS	49.75-50.25	
HIGHEST FREQUENCY	50.31	18:52
LOWEST FREQUENCY	49.83	18:46

1.4 SYSTEM COLLAPSE UP DATE

Date of last total collapse: 29th Dec., 2018		No. of days since last total collapse: 04												
Date of last partial collapse: 12th April, 2018		No. of days since last partial collapse: 266												
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
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	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	1	0	0	6
	Partial	--	--	1	0	2	0	0	0	0	1	0	0	4
2016	Total	--	--	2	3	2	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	3	3	3	15
	Partial	1	0	1	0	0	0	1	0	3	3	3	3	9
2018	Total	5	1	0	0	0	1	1	2	2	1	1	1	11
	Partial	0	0	0	1	0	0	0	0	0	0	0	0	1

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

STATION	TURBINE	PEAK GEN. (MW)	OFF-PEAK GEN.(MW)
1 KAINJI	HYDRO	398	365
2 JEBBA	HYDRO	448	248
3 SHIRORO	HYDRO	293	110
4 EGBIN ST2 - 5	STEAM	115	116
5 SAPELE	STEAM	0	0
6 DELTA	GAS	451	324
7 AFAM IV-V	GAS	50	58
8 GEREGU GAS	GAS	408	270
9 OMOTOSHO GAS	GAS	132.6	133.3
10 OLORUNSOGO GAS	GAS	160.7	173.3
11 GEREGU NIPP	GAS	238	174
12 SAPELE NIPP	GAS	92.4	91.4
13 ALAOJI NIPP	GAS	0	0
14 OLORUNSOGO NIPP	GAS	0	0
15 OMOTOSHO NIPP	GAS	108.8	110.4
16 ODUKPANI NIPP	GAS	203.4	184.9
17 IHOVBOR NIPP	GAS	109	97.2
18 OKPAI	GAS	320	205
19 AFAM VI	GAS	133	130
20 IBOM POWER	GAS	103.5	95.7
21 ASCO	GAS	0	0
22 A.E.S	GAS	0	0
23 OMOKU	GAS	58.8	44.4
24 TRANS AMADI	GAS	62.9	45.3
25 RIVERS IPP	(GAS)	110	0
26 AZURA - EDO IPP	(GAS)	420	225
27 EGBIN ST6	(GAS)	165	167
28 PARAS ENERGY	(GAS)	65.6	67
29 GBARAIN NIPP	GAS	103.4	97.3
TOTAL		4750.1	3532.2

1.6 ENERGY GENERATED/ENERGY SENT OUT:

STATION	TURBINE	ENERGY GENERATED MWH	AV ENERGY GENERATED MWH/H	ENERGY SENT OUT MWH	AV. ENERGY SENT OUT MWH/H
1 KAINJI	HYDRO	8761.00	365.04	8747.90	364.50
2 JEBBA	HYDRO	8214.00	342.25	8194.92	341.46
3 SHIRORO	HYDRO	3472.00	144.67	3443.16	143.47
4 EGBIN ST2 - 5	STEAM	2796.00	116.50	2652.50	110.52
5 SAPELE	STEAM	0.00	0.00	0.00	0.00
6 DELTA	GAS	9891.28	412.14	9699.58	404.15
7 AFAM IV-V	GAS	1253.87	52.24	1249.64	52.07
8 GEREGU GAS	GAS	8121.80	338.41	8091.33	337.14
9 OMOTOSHO GAS	GAS	3132.00	130.50	3109.20	129.55
10 OLORUNSOGO GAS	GAS	3970.20	165.43	3942.79	164.28
11 GEREGU NIPP	GAS	4852.74	202.20	4834.16	201.42
12 SAPELE NIPP	GAS	2251.24	93.80	2234.30	93.10
13 ALAOJI NIPP	GAS	0.00	0.00	0.00	0.00
14 OLORUNSOGO NIPP	GAS	0.00	0.00	0.00	0.00
15 OMOTOSHO NIPP	GAS	2585.10	107.71	2566.80	106.95
16 ODUKPANI NIPP	GAS	4799.32	199.97	4774.62	198.94
17 IHOVBOR NIPP	GAS	2450.00	102.08	2425.12	101.05
18 OKPAI	GAS	5488.00	228.67	5361.00	223.38
19 AFAM VI	GAS	3662.76	152.62	3610.00	150.42
20 IBOM	GAS	2308.43	96.18	2300.00	95.83
21 ASCO	GAS	0.00	0.00	0.00	0.00
22 AZURA - EDO IPP	GAS	7956.70	331.53	7929.25	330.39
23 A.E.S	GAS	0.00	0.00	0.00	0.00
24 OMOKU	GAS	1369.40	57.06	1334.38	55.60
25 TRANS AMADI	GAS	1242.80	51.78	1216.80	50.70
26 RIVERS IPP	GAS	1655.00	68.96	1644.10	68.50
27 EGBIN ST6	STEAM	3937.00	164.04	3736.80	155.70
28 PARAS ENERGY	GAS	1598.60	66.61	1591.40	66.31
29 GBARAIN NIPP	GAS	2148.00	89.50	2133.00	88.88
TOTAL		97,917.24	4,079.89	96,822.75	4,034.28

1.7A GENERATION POSITION AT 06:00HRS OF THURSDAY 03/01/2019

	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 50.19Hz.	REMARKS	
PRIVATISED COMPANIES	KAINJI HYDRO	8	1G5, 6, 11 & 12 4	440	440	1G5, 6, 11 & 12 4	440	372	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 - 5 5	475	461	2G1, 4 & 5 3	277	277	2G2 & 3 - Out due to low load demand by the Discos. 2G6 - Out due to burnt generator winding and AVR.	
	SHIRORO HYDRO	4	411G1, 2 & 4 3	450	450	411G2 & 4 2	300	102	411G1 - Shut down on water management. 411G2 & 4 - Generation reduced due to low load demand by the Discos. 411G3 - Out on fault.	
	EGBIN STEAM	6	ST4 & 6 2	440	440	ST4 & 6 2	281	281	ST1 - Out due to the unit transformer problem. ST2 - Out due to middle burner level problem. ST3 - Out on high vibration since 19th June 2017. ST5 - Tripped due to loss of lower burner and tube leakage.	
	SAPELE (STEAM)	6	0 0	0	0	0 0	0	0	ST1 & 3 - Tripped on low water drum level. ST2 - Tripped on high vibration. ST4 & 5 - Awaiting major overhaul. ST6 - Tripped on gas control valve not following reference point.	
	DELTA (GAS)	18	GT6, 7, 9 - 13, 15, 16, 19 & 20 11	565	565	GT6, 7, 9 - 13, 15, 16 & 19 10	418	418	GT2 - Tripped on transformer differential lockout. GT3 & 5 - Out on generator winding fault. GT4 - Out on loss of excitation. GT8 & 14 - Out on major overhaul. GT17 - Tripped on bearing vibration more than maximum. GT18 - Out due to generator lockout problem. GT20 - Out due to low load demand by the Discos.	
	AFAM IV & V (GAS)	8	GT18 1	70	70	GT18 1	51	51	GT11 - 12 - De-commissioned and scrapped. GT13,14 & 16 - Out on blade failure. GT17 - Out due to oil leakage on the bearing compartment. GT19 & 20 - Awaiting major overhaul.	
	GEREGU GAS	3	GT11 - 13 3	435	435	GT11 - 13 3	435	307	GT11 & 12 - Generation reduced due to low load demand by the Discos	
	OMOTOSHO GAS	8	GT2, 4, 6, 7 & 8 5	210	190	GT2, 6, 7 & 8 4	133.2	133.2	GT1, 3 & 5 - Out due to gas constraint. GT4 - Out due to low load demand by the Discos.	
	OLORUNSOGO GAS	8	GT2, 3, 4, 6, 7 & 8 6	252	228	GT2, 3, 4, 6 & 7 5	169	169	GT1 & 5 - Out due to gas constraint. GT8 - Out due to low load demand by the Discos.	
	NIPP	GEREGU NIPP	3	GT21 & 23 2	290	290	GT21 & 23 2	290	208	GT22 - Out on maintenance. GT23 - Generation reduced due to low load demand by the Discos.
		SAPELE NIPP	4	GT3 1	112.5	112.5	GT3 1	112.5	89.9	GT1 & 2 - Out due to low gas pressure. GT4 - Out due to high air filter differential pressure.
ALAOJI NIPP GAS		4	GT1 1	112.5	112.5	GT1 1	112.5	50.3	GT1 - Still loading up. GT2 - Out due to low gas pressure. GT3 - Shut down due to lack of spare part. GT4 - Tripped on over voltage lockout relay trip.	
OLORUNSOGO NIPP		6	0 0	0	0	0 0	0	0	GT1 - 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	120	GT2 1	120	80.9	GT1, 3 & 4 - Out due to gas constraint.	
ODUKPANI NIPP		5	GT3 & 4 2	225	225	GT3 & 4 2	225	189.6	GT1 - Out on fault. GT2 & 5 - Tripped on low gas pressure.	
IHOVBOR NIPP		4	GT1 1	112.5	112.5	GT1 1	112.5	95.5	GT1 - On manual adjustment to frequency. GT2 - Tripped on main transformer oil temperature 2nd phase trip alarm. GT3 - Tripped on high vibration. GT4 - Out due to gas station maintenance.	
GBARAIN NIPP GAS		1	0 0	0	0	0 0	0	0	GT2 - Out due to gas constraint.	
IPP		OKPAI GAS/STEAM	3	GT11, 12 & ST18 3	450	370	GT11, 12 & ST18 3	265	202	GT12 - Generation reduced due to low load demand by the Discos. ST18 - Generation limited due to boiler problem.
		AZURA - EDO	3	GT11 - 13 3	461	461	GT11 - 13 3	461	225	GT11-13 - Generation reduced due to low load demand by the Discos.
	AFAM VI GAS/STEAM	4	GT12, 13 & ST10 3	490	490	GT13 1	150	128	GT11 - Out on type C inspection. GT12 & ST10 - Out due to low load demand by the Discos.	
	IBOM POWER GAS	3	GT3 1	115	115	GT3 1	115	87.3	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	63	GT3 & 5 2	42.3	42.3	GT1 - Out due to low load demand by the Discos. GT4 - Out on major overhaul. GT6 - Out on maintenance.	
	TRANS-AMADI	4	GT1, 2 & 4 3	75	63.1	GT1, 2 & 4 3	63.1	63.1	GT3 - Out on fault.	
	RIVERS	1	GT1 1	180	160	GT1 1	160	90	GT1 - Out due to low gas supply from NGC.	
	SUB TOTAL	141	65	6160.5	5973.6	56	4733.1	3662.1	Frequency = 50.19Hz.	

1.7B GENERATION POSITION AT 06:00HRS OF THURSDAY 03/01/2019 FOR UNITS ON BILATERAL AGREEMENT

PARAS ENERGY	8	GT2 - 9	70	67.2	GT2 - 9	67.2	67.2	Available units on bar.
		8			8			
SUB TOTAL	8	8	70	67.2	8	67.2	67.2	
GRAND TOTAL	149	73	6230.5	6040.8	64	4,800.30	3,729.30	Frequency = 50.19Hz

1.7C		BILATERAL AGREEMENT UNITS DISPATCH - WEDNESDAY 02/01/2019							
		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								
	PTCEXPRESS								
	SANKYO								
	FEEDER 8								
IKORODU	PULK IT								
	INDUSTRIAL								
	SPINTEX								
	DANGOTE								
	LAND CRAFT								
ALAUSA	TR4 15MVA								
	TR5 -15MVA								
	ALAUSA								
M/LAND	PTC (MARYLAND)								
	TOTAL LOAD								

BILATERAL AGREEMENT LOAD DISPATCH							
60MW PARAS ENERGY GENERATION TO CEB OF WEDNESDAY 02/01/2019							
FEEDER	MAX LOAD (MW)	TIME (HRS)	MIN LOAD (MW)	TIME (HRS)	HOURS IN SERVICE	TOTAL (MWH)	REMARK
Ikeja West/Sakete 330kV line	68.8	23:00	64	09:00	24	1598.6	NIL

BILATERAL AGREEMENT MAIN STREAM ENERGY KAINJI LOAD DISPATCH TO THE FOLLOWING COMPANIES OF: WEDNESDAY 02/01/2019									
COMPANY NAME	VOLTAG E LEVEL	CON-TRAC-TUAL LOAD (MW)	MAX LOAD (MW)	TIME (HRS)	MIN LOAD (MW)	TIME (HRS)	HOURS IN SERVICE	TOTAL (MWH)	REMARK
INNER GALAXY	132kV line 2	0	0.1	01:00	0.1	24:00	24	2.4	SUPPLY NOT INTERRUPTED
KAM STEEL		25.0	0.2	1:00	0.1	08:00	24	4.4	SUPPLY NOT INTERRUPTED
ASHAKA CEMENT		0	8.2	01:00	1.7	19:00	24	123.2	SUPPLY NOT INTERRUPTED
XING 1	33kV feeder	0	15	01:00	6	07:00	24	298.5	SUPPLY NOT INTERRUPTED
XING 2		0	29.6	21:00	12.5	01:00	24	563.4	SUPPLY NOT INTERRUPTED
KAM INTEGRATED		15	4.4	22:00	0.6	01:00	24	42.3	SUPPLY NOT INTERRUPTED
OLAM FLOUR MILLS		3	1.6	22:00	0.1	01:00	24	13.4	SUPPLY NOT INTERRUPTED
LORDSMITH		3	0.1	01:00	0.1	24:00	24	2.4	SUPPLY NOT INTERRUPTED

1.8 HYDROLOGICAL DATA: THURSDAY 03/01/2019

	KAINJI	JEBBA	SHIRORO
HEAD WATER ELEVATION (METERS)	141.3	102.38	377.16
TAIL WATER ELEVATION (METERS)	104.55	74.1	270.0
GROSS OPERATING HEAD (METERS)	36.75	28.28	107.16
AVERAGE TURBINE DISCHARGE (M3/SEC)	1093.00	1352.00	165.00
AVERAGE SPILLAGE (M3/SEC)	200.00	0.00	0.00
AVERAGE TOTAL STATION DISCHARGE (M3/SEC)	1293.00	1352.00	165.00
COMPUTED INFLOW (M3/SEC)	1511.00	1248.00	17.00
STORAGE DIFFERENTIAL	218.00	-104	-148
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 WEDNESDAY 02/01/2019

	MAXIMUM LOAD (MW)	TIME (HRS)	ALLOCATED LOAD (MW)	MINIMUM LOAD (MW)	TIME (HRS)
ABUJA	602.3	21:00	509.25	415.2	08:00
EKO	462.1	14:00	558.41	343.2	07:00
IKEJA	557.6	11:00	625.11	427.2	17:00

2.0 GAS POSITION: THURSDAY 03/01/2019

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	282	1100		281	819
DELTA (GAS)	416	915		418	497
OMOTOSHO GAS	134	336.8		133.2	203.6
OMOTOSHO NIPP	114.7	500		120	380
OLORUNSOGO (GAS)	172.6	336		169	167
OLORUNSOGO NIPP	0	750		0	750
SAPELE NIPP	0	500		112.5	387.5
SAPELE STEAM	0	720		0	720
AFAM IV-V	50	300		50	250
AFAM VI	134	650		150	500
GEREGU GAS	270	435		435	0
GEREGU NIPP	181	435		290	145
OKPAI (GAS/STEAM)	216	480		265	215
ALAOJI NIPP	0	504		112.5	391.5
IHOV/BOR NIPP	100.1	337.5		112.5	225
IBOM	97.8	198		115	83
ODUKPANI NIPP		625		225	400
TOTAL	2168.2	9122.30		2988.7	6133.6

1 MMSCF IS EQUIVALENT TO 3.75MW

3.0 SPINNING RESERVE FOR : WEDNESDAY 02/01/2019

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

3.1 SYSTEM SPINNING RESERVE AS AT 0600HRS OF THURSDAY 03/01/2019 = 0MW, FREQUENCY 50.19Hz.

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 Thursday 03/01/2019 as at 0600Hrs was = 1599MW.

S/N	STATION	ACTUAL GENERATION CAPABILITY (MW)	GENERATION AT 0600HRS (MW)	UNAVAILABLE GENERATION CAPABILITY (MW)	SUB-TOTAL
4.1 DUE TO LINE CONSTRAINTS					
			0	0	0
			0	0	
			0	0	
			0	0	
4.2 DUE TO LOW LOAD DEMAND BY THE DISCOS					
1	Azura-Edo GT11-13	461	225	236	1449
2	Jebba 2G2	90	0	90	
3	Delta GT20	110	0	110	
4	Olorunsogo GT8	38	0	38	
5	Omotosho GT4	38	0	50	
6	Shiroro 411G2 & 4	300	102	198	
7	Okpai GT12	145	20	125	
8	Afam VI GT12 & ST10	350	0	350	
9	Geregu Gas GT11 & 12	290	173	117	
10	Geregu NIPP GT23	145	85	135	
			0	0	
			0	0	
4.3 DUE TO WATER MANAGEMENT:					
1	Shiroro 411G1	150	0	150	150
Grand Total					1599

5.0 OUTAGES:

5 (A) FORCED OUTAGES (GENERATION):

- 1 09:43-18:47Hrs, Kainji 1G11 was shut down for maintenance crew to weld the cracked throttle ring of the runner blade. Load loss = 86MW.
- 2 13:41 – 14:17Hrs, Rivers IPP GT1 tripped without relay indication. Load loss = 105MW.

5 (B) FORCED OUTAGES (TRANSMISSION):

- 1 11:27 – 11:38Hrs, New Haven/Nkalagu line 1 CB tripped at New Haven T/S on instantaneous E/F. LHR = 6.2MW.
- 2 11:27 11:39Hrs, New Haven/Nkalagu 132kV line 2 tripped at New Haven T/S on instantaneous O/C & E/F. LHR = 8.2MW.

5 (C) PLANNED OUTAGES:- NIL

5 (D) URGENT OUTAGES:-

- 1 18:15 - 18:45Hrs, Ayede/Shagamu 132kV line incomer CB was opened due to loss of D.C supply at the station. 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 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).

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	6	2
330kV	19	7	12
132kV	102	80	22

5 (E) EMERGENCY OUTAGES:-

The under mentioned lines were opened on frequency control.

- 1 21:24Hrs, Ikeja West/Agbara 132kV lines 1 & 2. Load loss = 55MW. Frequency was 49.90Hz.
- 2 18:45 - 18:47Hrs, Osogbo/Ife/Ilesha 132kV line . Load loss = 57MW. Frequency was 49.78Hz.
- 3 21:22 - 21:40Hrs, Akangba/Ojo 132kV line 2 . Load loss = 32MW. Frequency was 50.15Hz.

5 (F) AUTOMATIC UNDER FREQUENCY OPERATION:-

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, D2K, K3U & 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 - 283MW at 22:00Hrs.

Minimum load - 218MW at 08:00Hrs.

B BIRNIN KEBBI/NAMEY 132KV LINE

Maximum load - 89.0MW at 21:00Hrs.

Minimum load - 49.0MW at 03:00Hrs.

C KATSINA/GAZAOUA/MARADI 132KV LINE

Maximum load - 32.3MW at 21:00Hrs.

Minimum load - 13.9MW at 11:00Hrs.

8 MISCELLANEOUS:-

- 1 00:15 – 06:00Hrs, Jebba 2G3 was shut down due to low load demand by the Discos. Load loss = 81MW.
- 2 01:15Hrs, Birnin-Kebbi 75MX 330kV Shunt Reactor was placed in service for voltage control. Voltage profile: 346/328kV.
- 3 01:23Hrs, Omoku GT1 was shut down due to low load demand by the Discos. Load loss = 17.3MW.
- 4 03:01 – 07:06Hrs, Rivers IPP GT1 was shut down due to low gas pressure. Load loss = 70MW.
- 5 06:01Hrs, Delta GT20 was tied. The unit was out due to low load demand by the Discos.
- 6 13:09Hrs, Birnin-Kebbi T/S 75MX 330kV Reactor R1 was taken out of service for voltage control. Voltage profile: 321/330kV.
- 7 14:10Hrs, Omoku GT1 was tied. The unit was out due to low load demand by Discos.
- 8 19:46 – 21:06Hrs, Gbarain NIPP GT2 was shut down due to low gas pressure. LHR = 94MW.
- 9 20:23Hrs, Jebba 2G2 was tied. The unit was out due to low load demand by Discos.
- 10 23:03Hrs, Jebba 2G2 was shut down due to low demand by Discos. Load loss = 85MW.
- 11 23:29Hrs, Jebba 2G3 was shut down due to low demand by Discos. Load loss = 89MW.

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

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

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

