

TRANSMISSION COMPANY OF NIGERIA

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

DAILY OPERATIONAL REPORT OF MONDAY 12/03/2018

FOR: EVENTS OF SUNDAY 11/03/2018

1.0 EXECUTIVE OPERATIONS SUMMARY:

1.1 GENERATION PROFILE: NATIONAL STATISTICS

DETAILS	MW	HRS	DATE
PEAK DEMAND FORECAST (CONNECTED + SUPPRESSED LOAD)	22,230	23:00	11/03/2018
GENERATION CAPABILITY	7261	-do-	-do-
UNITS ON BAR CAPABILITY AT PEAK	5380	-do-	-do-
PEAK GENERATION	4770.2	-do-	-do-
LOWEST GENERATION	3558	11:00	11/03/2018
8-HOURLY DURATION PEAK	4209.7	0100-0800	-do-
	3952.5	0900-1600	-do-
	4770.2	1700-2400	-do-
	5222.3	21:00	18/12/2017
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		Omotosho T/S	11:00
LOWEST VOLTAGE FOR THE DAY	300	Gombe & Yola T/S	04:00 & 05:00

1.3 FREQUENCY RANGE

DETAILS	HZ	HRS
NOMINAL FREQUENCY	50	
STATUTORY LIMITS	49.75-50.25	
HIGHEST FREQUENCY	50.580	08:49
LOWEST FREQUENCY	49.920	20:32

1.4 SYSTEM COLLAPSE UP DATE

Date of last total collapse: 1st Feb., 2018		No. of days since last total collapse: 37											
Date of last partial collapse: 17 th Oct., 2017		No. of days since last partial collapse: 138											
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	--	2	2	1	4	22
	Partial	1	--	--	1	1	4	4	3	2	--	1	20
2011	Total	--	--	--	--	4	3	1	1	2	1	--	13
	Partial	--	1	1	--	--	--	--	--	1	2	--	6
2012	Total	--	--	2	1	5	2	1	--	--	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	0	1	0	0	0	0	2	1	4
2015	Total	1	0	1	0	2	0	1	0	0	0	1	6
	Partial	--	--	1	0	2	0	--	0	0	1	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	--	--	--	--	--	--	--	--	--	6
	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	401	305
2 JEBBA	HYDRO	350	231
3 SHIRORO	HYDRO	0	0
4 EGBIN ST2 - 5	STEAM	464	412
5 SAPELE	STEAM	55	47
6 DELTA	GAS	571	401
7 AFAM IV.V	GAS	62	62
8 GEREGU GAS	GAS	282	90
9 OMOTOSHO GAS	GAS	1401	136.8
10 OLORUNSOGO GAS	GAS	174.2	135.9
11 GEREGU NIPP	GAS	141	100
12 SAPELE NIPP	GAS	198.2	158.5
13 ALAQJI NIPP	GAS	0	0
14 OLORUNSOGO NIPP	GAS	0	0
15 OMOTOSHO NIPP	GAS	111	92.9
16 ODUKPANI NIPP	GAS	222.5	177.7
17 IHOVBOR NIPP	GAS	95.4	73.3
18 OKPAI	GAS	320	209
19 AFAM VI	GAS	549	425
20 IBOM POWER	GAS	85.9	72.1
21 ASCO	GAS	0	0
22 A.E.S	GAS	0	0
23 OMOKU	GAS	75.7	31.9
24 TRANS AMADI	GAS	42.5	42.2
25 RIVERS IPP	(GAS)	105	90
26 AZURA - EDO IPP	(GAS)	0	0
27 EGBIN ST6	(GAS)	151	110
28 PARAS ENERGY	(GAS)	71	70.2
29 IGBARAIN NIPP	GAS	102.7	78.9
TOTAL		4770.2	3558

1.6 ENERGY GENERATED/ENERGY SENT OUT:

STATION	TURBINE	ENERGY GENERATED		ENERGY SENT OUT	
		MWH	MWH/H	MWH	MWH/H
1 KAINJI	HYDRO	7986.00	332.75	7969.80	332.08
2 JEBBA	HYDRO	6833.00	284.71	6807.84	283.66
3 SHIRORO	HYDRO	0.00	0.00	0.00	0.00
4 EGBIN ST2 - 5	STEAM	10068.00	419.50	9499.80	395.83
5 SAPELE	STEAM	687.00	28.63	687.00	28.63
6 DELTA	GAS	12231.97	509.67	12039.40	501.64
7 AFAM IV.V	GAS	1484.00	61.00	1480.45	60.85
8 GEREGU GAS	GAS	3333.50	138.90	3310.51	137.94
9 OMOTOSHO GAS	GAS	3308.00	137.83	3283.40	136.81
10 OLORUNSOGO GAS	GAS	3394.69	141.45	3365.39	140.22
11 GEREGU NIPP	GAS	3020.25	125.84	3003.26	125.14
12 SAPELE NIPP	GAS	4142.80	172.62	4116.61	171.53
13 ALAQJI 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	2373.10	98.88	2351.20	97.97
16 ODUKPANI NIPP	GAS	5150.70	214.61	5112.30	213.01
17 IHOVBOR NIPP	GAS	2400.00	100.00	2381.93	99.25
18 OKPAI	GAS	6100.00	254.17	5944.20	247.68
19 AFAM VI	GAS	12055.51	502.31	11796.76	491.53
20 IBOM	GAS	1973.81	82.24	1965.00	81.88
21 ASCO	GAS	0.00	0.00	0.00	0.00
22 AZURA - EDO IPP	GAS	0.00	0.00	0.00	0.00
23 A.E.S	GAS	0.00	0.00	0.00	0.00
24 OMOKU	GAS	1169.70	48.74	1141.65	47.57
25 TRANS AMADI	GAS	972.70	40.53	945.60	39.40
26 RIVERS IPP	GAS	2382.30	99.26	2376.81	99.03
27 EGBIN ST6	STEAM	3356.00	139.83	3171.70	132.15
28 PARAS ENERGY	GAS	1689.10	70.38	1683.90	70.16
29 IGBARAIN NIPP	GAS	2180.00	90.83	2163.80	90.16
TOTAL		98,272.13	4,094.67	96,578.21	4,024.00

1.7A GENERATION POSITION AT 06:00HRS OF MONDAY 12/03/2018

	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	7	1G5, 6, 11 & 12 4	440	440	1G5, 6, 11 & 12 4	440	350	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, 2, 4 & 5 4	380	380	2G1, 2, 4 & 5 4	380	345	2G3 - Out on maintenance. 2G6 - Out due to burnt generator winding and AVR.
	SHIRORO HYDRO	4	0 0	0	0	0 0	0	0	The station is out due to turbine pit flooding.
	EGBIN STEAM	5	ST1, 2, 4 & 5 4	880	600	ST1, 2 & 4 3	497	487	ST3 - Tripped on high vibration. GT5 - Out due to gas constraint.
	SAPELE (STEAM)	1	ST2 1	120	55	ST2 1	55	55	ST1 - Tripped on low drum level. 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 - 20 12	655	655	GT4, 7, 9 - 13, 15, 16 & 18 - 20 12	635	601	GT3 & 5 - Out due to generator winding fault. GT6 & 14 - Out on major overhaul. GT17 - Out on excitation trouble.
	AFAM IV & V (GAS)	8	GT18 1	75	62	GT18 1	62	62	GT1 - 12 - De-commissioned and scrapped. GT13 - 16 - Out on blade failure. GT17 - Out on fault. GT19 & 20 - Awaiting major overhaul.
	GEREGU GAS	3	GT11 - 13 3	435	435	GT12 & 13 2	290	256	GT11 - Out due to gas constraint.
	OMOTOSHO GAS	8	GT1 - 8 8	336	304	GT1, 2, 6 & 8 4	152	142.5	GT3, 4, 5 & 7 - Out due to gas constraint.
	OLORUNSOGO GAS	8	GT1 - 8 8	336	304	GT2, 4 - 6 & 8 5	190	176.8	GT1, 3 & 7 - Out due to gas constraint.
NIPP	GEREGU NIPP	3	GT22 & 23 2	290	290	GT23 1	145	145	GT21 - Out on maintenance. GT22 - Out due to gas constraint.
	SAPELE NIPP	4	GT1 & 3 2	230	230	GT1 & 3 2	225	145.2	GT2 - Out due to high air inlet differential pressure. GT4 - Tripped on fire protection alarm.
	ALAOJI NIPP GAS	4	GT1, 2 & 4 3	375	360	0 0	0	0	GT1, 2 & 4 - Tripped due to low gas pressure. GT3 - Shut down due to generator air inlet filter trouble.
	OLORUNSOGO NIPP	6	GT1 - 3 3	375	360	0 0	0	0	GT1 - 3 - Out due to gas constraint. GT4 - Out on ignition failure and control relay failure alarm. ST13 & ST23 - Out on maintenance.
	OMOTOSHO NIPP GAS	4	GT1, 2 & 4 3	375	360	GT2 1	120	99	GT1 & 4 - Out due to gas constraint. GT3 - Shut down due to oil leakage on the unit.
	ODUKPANI NIPP	5	GT3, 4 & 5 3	360	345	GT3, 4 & 5 3	345	210.8	GT1 - Shut down due to fire alarm that refused to cancel. GT2 - Out due to motor starting problem. GT3 & 5 - Generation reduced due to fuel/gas system problem.
	IHOVBOR NIPP	4	GT1 - 3 3	345	330	GT3 1	110	94.5	GT1 & 2 - Out due to gas constraint. GT4 - Out on maintenance.
	GBARAIN NIPP GAS	1	GT2 1	112.5	112.5	GT2 1	112.5	95.6	Available unit on bar.
	IPP	OKPAI GAS/STEAM	3	GT11, 12 & ST18 3	375	375	GT11, 12 & ST18 3	358	232
AZURA - EDO		0	0 0	0	0	0 0	0	0	GT11 - Undergoing commissioning tests. GT12 & 13 - Awaiting commissioning.
AFAM VI GAS/STEAM		4	GT11 - 13 & ST10 4	650	650	GT11, 12 & ST10 4	500	431	GT13 - Out on frequency management. ST10 - Generation reduced on Afam management decision.
IBOM POWER GAS		3	GT3 1	115	115	GT3 1	115	87.7	GT1 & 2 - Out on fault. GT3 - Generation reduced due to line constraint.
AES		0	0 0	0	0	0 0	0	0	Out of production since 27/09/2014.
ASCO		0	0 0	0	0	0 0	0	0	GT1 - Shut down due to leakage in the furnace.
OMOKU GAS		6	GT1, 2, 5 & 6 4	100	80	GT1, 2, 5 & 6 4	80	75.9	GT3 - Out due to gas leakage. GT4 - Awaiting major overhaul.
TRANS-AMADI		4	GT1 & 2 2	50	42	GT1 & 2 2	42	42	GT3 - Out on fault. GT4 - Tripped on stator differential.
RIVERS		1	GT1 1	180	160	GT1 1	160	105	Generation reduced due to gas constraint.
	SUB TOTAL	120	80	7589.5	7044.5	60	5013.5	4239	Frequency = 50.37Hz.

1.7B GENERATION POSITION AT 06:00HRS OF MONDAY 12/03/2018 FOR UNITS ON BILATERAL AGREEMENT

EGBIN	1	ST6		ST6		150	150	Available unit on bar.
		1	220	150	1			
PARAS ENERGY	8	GT2-9		GT2-9		69.4	69.4	Available units on bar.
		8	69.4	69.4	8			
SUB TOTAL	9	9	289.4	219.4	9	219.4	219.4	
GRAND TOTAL	129	89	7878.9	7263.9	69	5,232.90	4,458.40	Frequency = 50.37Hz.

1.7C BILATERAL AGREEMENT UNITS DISPATCH - SUNDAY 11/03/2018

FEEDERS NAME	MAX. LOAD (MW)	TIME (HRS)		REMARK
Egbin ST6 120MW GENERATION TO IKEJA ELECTRICITY DISTRIBUTION COMPANY				

OGBA	U-STEEL	ON	0100HRS	24HRS	NIL
	PTCEXPRESS	10	1200HRS	18HRS	PLANNED OUTAGE
	SANKYO	OUT	0100HRS	NIL	TRIP ON FAULT.O/C & E/F
	FEEDER 8	10	1000HRS	24HRS	NIL
IKORODU	PULK IT	5	1600	24	NIL
	INDUSTRIAL	22	1900	24	NIL
	SPINTEX	7	0200	24	NIL
	DANGOTE	1	0100	24	NIL
	LAND CRAFT	46	0600	24	NIL
ALAJUSA	TR4 15MVA	5.5	15:00	2400HRS	NIL
	TR5 -15MVA	4.6	21:00	2400HRS	NIL
	ALAUUSA	13.8	13:00	2400HRS	NIL
MILAND	PTC (MARYLAND)	15MW	17HRS	24HRS	NIL
TOTAL LOAD		124.9			

BILATERAL AGREEMENT LOAD DISPATCH
60MW PARAS ENERGY GENERATION TO CEB

FEEDER	MAX	TIME	HOURS IN SERVICE	REMARK
Ikeja West/Sakete 330KV line	72.6	20:00	24	Nil

1.8 HYDROLOGICAL DATA: MONDAY 12/03/2018

	KAINJI	JEBBA	SHIRORO
HEAD WATER ELEVATION (METERS)	139.21	101.3	370.89
TAIL WATER ELEVATION (METERS)	103.32	74.10	268.60
GROSS OPERATING HEAD (METERS)	35.89	27.22	102.29
AVERAGE TURBINE DISCHARGE (M3/SEC)	1036.00	1193.00	0.00
AVERAGE SPILLAGE (M3/SEC)	0.00	0.00	0.00
AVERAGE TOTAL STATION DISCHARGE (M3/SEC)	1036	1193	0
COMPUTED INFLOW (M3/SEC)	249.00	1054.00	0.00
STORAGE DIFFERENTIAL	-787.00	-139	0
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 SUNDAY 11/03/2018

DISCO	MAXIMUM LOAD(MW)	TIME(HRS)	ALLOCATED LOAD (MW)	MINIMUM LOAD(MW)	TIME(HRS)
ABUJA	575.40	22:00	468.7	382.6	07:00
EKO	461.0	19:00	548.32	336.7	11:00
IKEJA	631.1	20:00	571.34	505.2	03:00

2.0 GAS POSITION: MONDAY 12/03/2018

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	422	1100		600	500
DELTA (GAS)	591	915		655	260
OMOTOSHO GAS	143.9	336.8		162	184.8
OMOTOSHO NIPP	98.3	500		120	380
OLORUNSOGO (GAS)	137.1	336		190	146
OLORUNSOGO NIPP	0	750		0	750
SAPELE NIPP	168.1	500		230	270
SAPELE STEAM	46	720		55	665
AFAM IV-V	63	300		62	238
AFAM VI	566	650		650	0
GEREGU GAS	103	435		290	145
GEREGU NIPP	145	435		145	290
ODUKPANI (GAS/STEAM)	214	480		358	122
ALAOJU NIPP	0	504		0	504
IHOVBOR NIPP	95.5	450		110	340
IBOM	80.1	198		115	83
ODUKPANI NIPP	231.6	625		345	280
TOTAL	3104.6	9236.43		4077	5157.8

1 MMSCF IS EQUIVALENT TO 3.78MW

3.0 SPINNING RESERVE FOR : SUNDAY 11/03/2018

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

3.1 SYSTEM SPINNING RESERVE AS AT 0600HRS OF MONDAY 12/03/2018 = 0MW. FREQUENCY 50.37Hz.

S/N	POWER STATION	UNIT ON SPINNING RESERVE	CONTRACTED RESERVE	ACTUAL RESERVE (MW)	TOTAL (MW)
1	Egbin	ST2	100	0	0
		ST4		0	
		ST6		0	
		ST6		0	
2	Delta	GT16	40	0	0
		GT17	40	0	
3	Olorunsogo NIPP	GT1	40	0	0
		GT2		0	
		GT3		382.5	
		GT4		0	
4	Geregu NIPP	GT22	35	0	0
		GT1	0		
5	Omotosho NIPP	GT2	40	0	0
		GT3		0	
		GT4		0	
TOTAL (MW)			295	0	0

4.0 UNUTILIZED GENERATION CAPABILITY

The unutilized generation capability for Monday 12/03/2018 as at 0600Hrs was = 2105.3MW.

S/NO	STATION	ACTUAL GENERATION CAPABILITY (MW)	GENERATION AT 0600HRS (MW)	UNUTILIZED GENERATION CAPABILITY (MW)	SUB-TOTAL
4.1 DUE TO GAS CONSTRAINTS:					
1	Omotosho NIPP GT1 & 4	240	0	240	1801
2	Ihobor GT1 & 2	225	0	225	
3	Alaoju NIPP GT1, 2 & 3	360	0	360	
4	Olorunsogo Gas GT1, 3 & 7	114	0	114	
5	Olorunsogo NIPP GT1 - 3	360	0	360	
6	Omotosho Gas GT3, 4, 5 & 7	152	0	152	
7	Egbin ST5	150	0	150	
8	Geregu Gas GT11	145	0	145	
9	Rivers GT1	160	105	55	
IT IS ENVISAGED WITH IMPROVED PLANT AVAILABILITY AND RELIEF FROM EXISTING POWER SYSTEM NETWORK RELATED CONSTRAINTS, ADDITIONAL 1375.41MMSCF OF GAS (EQUIVALENT TO 5157.8MW) WILL BE REQUIRED WHEN ALL THERMAL UNITS ARE ON BAR.					
4.2 DUE TO LINE CONSTRAINTS					
1	Ibom Power GT3	115	87.7	27.3	27.3
4.3 DUE TO FREQUENCY MANAGEMENT OCCASIONED BY DISCOS' LOAD DEMAND					
1	Okpa GT11 & 12	300	173	127	277
2	Afam VI GT13	150	0	150	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
				0	
4.4 DUE TO WATER MANAGEMENT					
					0
Grand Total					2105.3

5.0 **OUTAGES:**

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

- 1 18:36 – 20:34Hrs, Trans Amadi P/S GT2 tripped on high lube oil temperature. LHR = 22.2MW.

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

- 1 12:07 – 12:20Hrs, Ife/Ondo 132kV line CB tripped at Ife T/S on Optimho relay – DEF, location = 370.3km, period = 100.5ms. LHR = 2MW.
- 2 15:07 – 15:26Hrs, Mando/Zaria 132kV line CB tripped at Mando T/S on distance protection – optimho relay – zone 2, ABC and 86TE trip relay. LHR = 60MW.
- 3 15:56 – 19:18Hrs, Benin/Irrua 132kV line CB tripped at Benin T/S on Nari relay – D/P O/C Red & Yellow Phases, fault location = 55.1km, FCT = 210ms. LHR = 15.0km.
- 4 17:33 – 17:48Hrs, Ilupeju T/S 2x15MVA 132/11kV transformers T1 & T3 secondary CBs tripped on SBEF respectively. LHR = 4.5MW each.
- 5 17:56 – 19:47Hrs, Irrua T/S 30MVA 132/33kV transformer T2 primary & secondary CBs tripped on primary- O/C relay, on secondary- without relay indication. LHR = 14.9MW.
- 6 23:11 – 23:17Hrs, New Haven/Nkalagu 132kV line CB tripped at New Haven T/S on instantaneous O/C Red & Yellow and lockout. LHR = 32MW.

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

- 1 08:51 – 16:05Hrs, Mando/Kaduna town 132kV lines 1 & 2 were taken out to enable maintenance crew and contractor continue replacement of ACSR with ACCC on the lines. LHR = 38MW.

5(D) **URGENT OUTAGES:**

- 1 09:28 - 19:39Hrs, Afam VI GT13 was shut down due to high load on ccts F1A & F2A. Load loss = 110MW.
- 2 15:07 – 21:30Hrs, Mando/Kaduna Town132kV line 1 CB was taken out due to tripping of Mando/Zaria 132kV line at Mando T/S. Load loss = 23MW.
- 3 15:08 – 17:35Hrs, Jebba 2G5 was shut down due to defective air admission valve. LHR = 73MW.

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 ODUKANI, AZURA, SHELL AFAM VI AGIP OKPAI, OLORUNSOGO POWER PLC AND OMOTOSHO POWER PLC.

GROUP 2B - OTHER GENERATOR 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 (NOT YET IDENTIFIED).

GROUP 7 - ALL OTHER PLANTS.

11 (A) **COMMUNICATION MEDIA**

STATIONS	NO INSTALLED	NO. WORKING
PLC/PAX	37	33
OPTIC FIBRE	13	10
PLS	14	5

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

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

5 (G) **330KV LINES THAT ARE OUT ON VOLTAGE CONTROL:-** ccts A1S & K3U.

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

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

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

5 (K) **330KV LINES THAT ARE ON SOAK:-** ccts N4J, A2K & F1K.

6 **WEATHER REPORT:-** No rainfall reported.

7 **INTERNATIONAL LINES:-**

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

Maximum load - 292MW at 22:00 Hrs.
 Minimum load - 166MW at 08:00Hrs.

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

Maximum load - 101MW at 15:00Hrs.
 Minimum load - 83MW at 08:00Hrs.

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

Maximum load - 40MW at 21:00Hrs.
 Minimum load - 21MW at 11:00Hrs.

8 **MISCELLANEOUS:-**

- 1 01:22 – 05:58Hrs, Jebba 2G2 was shut down on frequency management. Load loss = 74MW.
- 2 07:16Hrs, Egbin P/S generation reduced by 55MW. Frequency was 50.53Hz
- 3 07:41 – 13:34Hrs, Jebba 2G4 was shut down on frequency management. Load loss 72MW.
- 4 08:10Hrs, Osogbo T/S 75MX 330kV shunt reactor 4R1 was placed in service on voltage control. Voltage profile: 335/331kV.
- 5 08:15 - 18:40Hrs, Delta GT16 was shut down on frequency management. Load loss = 59MW.
- 6 10:32 – 13:02Hrs, Oturkpo 132kV T/S was forcefully shut down due to invasion of energy customers who were complaining of unstable power supply. Load loss = 9MW.
- 7 10:34Hrs, Kumbotso T/S 50MVAR capacitor bank 1 was switched off on voltage control. Voltage profile: 340/320kV.
- 8 11:04Hrs, Omoku GT6 was tied. The unit was out due to tripping of Afam 1 T/S 162MVA 330/132/33kV interbus transformer.
- 9 13:24Hrs, Lekki T/S 60MVA 132/33kV transformer 1 was restored. The transformer was out on fault.
- 10 13:35Hrs, Katampe T/S 75MX 330kV shunt reactor R1 was switched off on voltage control. Voltage profile: 315/323kV.
- 11 14:32Hrs, Olorunsogo P/S GT2 was tied to swap with GT4.
- 12 15:09Hrs, Olorunsogo gas GT4 was shut down. No load loss as 34.6MW was transferred to GT2.
- 13 14:32Hrs, Omoku G/S GT2 was tied. The unit was out due to gas constraint.
- 14 17:35 – 18:44Hrs, Jebba G/S 2G2 was shut down. No load loss as 78MW was transferred to 2G5.
- 15 08:15 - 18:40Hrs, Delta GT16 was shut down on frequency management. Load loss = 59MW.
- 16 18:47Hrs, Geregu P/S GT13 was tied. The unit was out due to gas constraint.
- 17 19:44Hrs, Efurun T/S 60MVA 132/33kV transformer T23 was restored. The transformer tripped at 19:56Hrs of 10/03/2018.

11 (B) **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	76	26

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.

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

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

12(D) **LAGOS REGION**

- 1 Agbara/Ojo 132kV line 1 on soak from Agbara end.

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.

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.

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.

BENIN REGION:

- 1 Omotosho 330kV T/S, 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 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

- 1 New Haven/Nkalagu 132kV line 2 ground switch - Canibalized Red phase female contact and canibalized Yellow phase male contact.

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 Shiroro T/S 330kV Jebba line 2 - 28 spans

ABUJA REGION

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

12 (G) UNAVAILABLE SYNCHROSCOPES -

- 1 Benin, Ikeja West, Onitsha, Egbin, Ugwuaji, Osogbo, Kaduna, 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

