

TRANSMISSION COMPANY OF NIGERIA

To: Head (ISO), TCN - Abuja

From: General Manager, NCC, Osogbo

DAILY OPERATIONAL REPORT OF FRIDAY 12/01/2016

FOR: EVENTS OF THURSDAY 11/01/2016

1.0 EXECUTIVE OPERATIONS SUMMARY:

1.1 GENERATION PROFILE: NATIONAL STATISTICS

DETAILS	MW	HRS	DATE
PEAK DEMAND FORECAST (CONNECTED + SUPPRESSED LOAD)	20,550	22:00	11-01-18
GENERATION CAPABILITY	7472	-do-	-do-
UNITS ON BAR CAPABILITY AT PEAK	5298	-do-	-do-
PEAK GENERATION	4603.8	-do-	-do-
LOWEST GENERATION	3772.4	08:00	11/01/2018
	4372	0000-0800	-do-
8-HOURLY DURATION PEAK	4072.1	0900-1600	-do-
	4603.8	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	355	B/Kebbi T/S	08:00
LOWEST VOLTAGE FOR THE DAY	280	Ayede T/S	14:00

1.3 FREQUENCY RANGE

DETAILS	HZ	HRS
NOMINAL FREQUENCY	50	
STATUTORY LIMITS	49.75-50.25	
HIGHEST FREQUENCY	50.49	03:42
LOWEST FREQUENCY	49.96	20:05

1.4 SYSTEM COLLAPSE UP DATE

Date of last total collapse: 6 th Jan, 2018		No. of days since last total collapse: 0												
Date of last partial collapse: 17 th Oct, 2017		No. of days since last partial collapse: 8												
Highest No of days ever attained in-between total collapses		Highest No of days ever attained in-between partial collapses: 24												
	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	--	1	1	2	1	--	13	
	Partial	--	1	--	--	--	--	1	--	1	2	--	8	
2012	Total	--	--	2	1	5	2	1	--	--	2	2	1	16
	Partial	--	--	2	3	--	--	--	1	--	1	1	1	8
2013	Total	--	1	2	2	3	4	1	1	1	4	2	2	22
	Partial	--	--	--	--	--	--	--	2	1	4	1	1	9
2014	Total	2			2	0	3	1	0	0	1	0	0	9
	Partial	1	0	0	0	1	0	0	0	0	2	1	4	
2015	Total	--	--	1	0	2	0	0	0	0	1	0	0	6
	Partial	--	--	1	0	2	0	0	0	1	0	0	4	
2016	Total	--	--	2	3	6	5	0	0	1	2	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	0	0	15
	Partial	1	0	1	0	0	0	0	0	3	3			9
2018	Total	2												2
	Partial													

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

STATION	TURBINE	PEAK GEN. (MW)	OFF-PEAK GEN(MW)
1	KAINJI	423	371
2	JEBBA	194	169
3	SHIRORO	200	198
4	EGBIN ST2 - 5	254	239
5	SAPELE	0	0
6	DELTA	599	373
7	AFAM IV-V	63	63
8	GEREGU GAS	430	407
9	OMOTOSHO GAS	140.5	143.1
10	OLORUNSOGO GAS	195.9	163.8
11	GEREGU NIPP	107	105
12	SAPELE NIPP	207.2	141
13	ALAOJI NIPP	0	0
14	OLORUNSOGO NIP	0	0
15	OMOTOSHO NIPP	107.8	105.2
16	ODUKPANI NIPP	322	276.1
17	IHOVBOR NIPP	109.3	97.6
18	OKPAI	307	296
19	AFAM VI	409	254
20	IBOM POWER	0	0
21	ASCO	0	0
22	A.E.S	0	0.4
23	OMOKU	62.9	0
24	TRANS AMADI	0	0
25	RIVERS IPP (GAS)	141	0
26	AZURA - EDO IPP (GAS)	0	0
27	EGBIN ST6 (GAS)	152	177
28	PARAS ENERGY (GAS)	71	70.2
29	GBARAIN NIPP	108.2	103
TOTAL		4603.8	3772.4

1.6 ENERGY GENERATED/ENERGY SENT OUT

STATION	TURBINE	ENERGY GENERATED		ENERGY SENT OUT	
		MWH	MWH/H	MWH	MWH/H
1	KAINJI	9625.00	376.04	9089.00	375.38
2	JEBBA	4302.00	179.25	4280.60	178.36
3	SHIRORO	6533.00	272.21	5603.93	233.50
4	EGBIN ST2 - 5	5229.00	217.88	4834.20	201.43
5	SAPELE	0.00	0.00	0.00	0.00
6	DELTA	10943.57	455.98	10829.00	451.21
7	AFAM IV-V	1437.00	59.88	1432.89	59.70
8	GEREGU GAS	9142.60	380.94	9110.83	379.62
9	OMOTOSHO GAS	3253.00	135.54	3230.90	134.62
10	OLORUNSOGO GAS	4640.26	193.34	4610.63	192.11
11	GEREGU NIPP	2893.87	120.58	2877.23	119.88
12	SAPELE NIPP	4114.49	171.44	4090.33	170.43
13	AZURA - EDO IPP	782.05	32.59	776.70	32.45
14	ALAOJI NIPP	0.00	0.00	0.00	0.00
15	OLORUNSOGO NIP	0.00	0.00	0.00	0.00
16	OMOTOSHO NIPP	2442.90	101.79	2423.00	100.96
17	ODUKPANI NIPP	6295.42	262.31	6260.56	260.86
18	IHOVBOR NIPP	2308.00	96.17	2292.30	95.51
19	OKPAI	6799.00	283.29	6639.00	276.63
20	AFAM VI	8803.19	283.47	8710.83	279.62
21	IBOM	1377.88	57.41	1383.00	56.79
22	ASCO	0.00	0.00	0.00	0.00
23	A.E.S	0.00	0.00	0.00	0.00
24	OMOKU	1398.20	58.26	1362.95	56.79
25	TRANS AMADI	0.00	0.00	0.00	0.00
26	RIVERS IPP	2476.20	103.26	2473.00	103.04
27	EGBIN ST6	4001.00	166.71	3804.30	158.51
28	PARAS ENERGY	1673.60	69.73	1665.10	69.38
29	GBARAIN NIPP	1799.12	74.96	1783.92	74.33
TOTAL		99,672.35	4,153.01	97,466.20	4,061.09

1.7A GENERATION POSITION AT 06:00HRS OF FRIDAY 12/01/2018

	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	8	1G5, 6, 11 & 12	440	440	1G5, 6, 11 & 12	440	379	1G11 & 12 - On frequency response. 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	4 2G1 - 5	475	475	4 2G1 & 5	200	200	2G2 - 4 - Out to establish cause of recent system disturbances. 2G6 - Out due to burnt generator winding and AVR.	
	SHIRORO HYDRO	4	411G1, 2 & 4	435	435	411G1 & 2	300	202	411G2 - Generation reduced on frequency management. 411G3 - Out on maintenance 411G4 - Out on water management.	
	EGBIN STEAM	5	3 ST4 & 5	440	440	2 ST4 & 5	440	255	ST1 - Tripped on generator CB trouble. ST2 - Out on undisclosed fault. ST3 - Tripped on high vibration.	
	SAPELE (STEAM)	6	2 0	0	0	0 0	0	0	ST1 - Tripped on low drum level. ST2 - Out on maintenance. ST3 - Out on stator winding problem. ST4 & 5 - Awaiting major overhaul. ST6 - Tripped on gas control valve not following reference point.	
	DELTA (GAS)	18	0 11 GT4, 7, 9, 10, 12, 13, 15, 16, 18, 19 & 20	635	635	0 11 GT4, 7, 9, 10, 12, 13, 15, 16, 18, 19 & 20	635	566	GT3 & 5 - Out due to generator winding fault. GT6 & 14 - Out on major overhaul. GT11 - Out on fault. GT15, 16, 18 & 19 - On frequency response. GT17 - Out on excitation trouble.	
	AFAM IV & V (GAS)	8	1 GT18	75	63	1 GT18	63	63	GT1 - 12 - De-commissioned and scrapped. GT13 - 16 - Out on blade failure. GT17 - Tripped on loss of excitation. GT19 & 20 - Awaiting major overhaul.	
	GEREGU GAS	3	3 GT11 - 13	435	435	3 GT11 - 13	435	327	GT11 - 13 - Generation reduced on frequency management.	
	OMOTOSHO GAS	8	8 GT1 - 8	336	304	4 GT1, 2, 5 & 6	152	143.8	GT3, 4, 7 & 8 - Out due to gas constraint.	
	OLORUNSOGO GAS	8	8 GT1 - 8	336	304	6 GT1, 2, 4, 5, 6 & 8	228	199.1	GT3 & 7 - Out due to gas constraint. GT4 - On frequency response.	
NIPP	GEREGU NIPP	3	2 GT22 & 23	290	290	1 GT22	145	91	GT21 - Out on maintenance. GT22 - Generation reduced due to gas constraint. GT23 - Out due to gas constraints.	
	SAPELE NIPP	4	2 GT1 & 2	225	225	2 GT1 & 2	225	169.3	GT1 - On frequency response. GT2 - Generation reduced on frequency management. GT3 - Out on undisclosed fault. GT4 - Tripped on fire protection alarm.	
	ALAOJI NIPP GAS	4	2 GT1 & 2	250	240	0 0	0	0	GT1 & 2 - Tripped due to low gas pressure. GT3 - Shut down due to generator air inlet filter trouble. GT4 - Out on maintenance.	
	OLORUNSOGO NIPP GAS	6	3 GT1 - 3	360	360	0 0	0	0	GT1 - 3 - Out due to unavailability of diesel to power the standby diesel generator. GT4 - Out of production since 25/10/2016. ST13 & ST23 - Out on maintenance.	
	OMOTOSHO NIPP GAS	4	3 GT1, 2 & 4	375	360	1 GT1	120	103.9	GT1 - On frequency response. GT2 & 4 - Out due to gas constraint. GT3 - Shut down due to oil leakage on the unit.	
	ODUKPANI NIPP	5	3 GT1, 4 & 5	360	345	3 GT1, 4 & 5	345	275.5	GT1 & 5 - On frequency response. GT2 - Out due to control system problem. GT3 - Out due to unit transformer problem.	
	IHOVBOR NIPP	4	3 GT1 - 3	337.5	337.5	1 GT2	112.5	94.4	GT1 & 3 - Out due to gas constraint. GT2 - On frequency response. GT4 - Out on maintenance.	
	GBARAIN NIPP GAS	1	1 GT2	112.5	112.5	1 GT2	112.5	104.1	Available unit on bar.	
	IPP	OKPAI GAS/STEAM	3	3 GT11, 12 & ST18	375	375	3 GT11, 12 & ST18	375	283	ST18 - On frequency response. GT12 - Generation reduced due to air inlet differential pressure.
		AZURA - EDO	0	0 0	0	0	0 0	0	0	GT11 - Undergoing commissioning tests. GT12 & 13 - Awaiting commissioning.
AFAM VI GAS/STEAM		4	4 GT11 - 13 & ST10	650	650	3 GT11 - 13	450	345	GT11 - On frequency response. GT12 & 13 - Generation reduced on frequency management. ST10 - Out on frequency management.	
IBOM POWER GAS		3	1 GT3	115	115	0 0	0	0	GT1 & 2 - Out on fault. GT3 - Shut down due to faulty black start generator.	
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	4 GT1, 2, 5 & 6	100	80	4 GT1, 2, 5 & 6	80	62.6	GT3 - Out due to gas leakage. GT4 - Awaiting major overhaul. Generation reduced due to gas constraint.	
TRANS-AMADI		4	0 0	0	0	0 0	0	0	GT1 & 4 - Station shut down due to fatal accident on 1st January 2018.	
RIVERS		1	1 GT1	180	160	0 0	0	0	GT1 - Tripped due to loss of supply from the grid.	
		SUB TOTAL	126	77	7337	7181	54	4858	3863.7	Frequency = 50.30Hz.

1.7B GENERATION POSITION AT 06:00HRS OF FRIDAY 12/01/2018 FOR UNITS ON BILATERAL AGREEMENT

FEEDERS NAME	MAX. LOAD (MW)	ST6		220	220	ST6		220	152	Available unit on bar.
		1	1			1	1			
EGBIN	1									
PARAS ENERGY	8	GT2 - 9	8	69.4	69.4	GT2 - 9	8	69.4	69.4	Available units on bar.
SUB TOTAL	9	9	8	289.4	289.4	9	8	289.4	221.4	
GRAND TOTAL	135	86		7626.4	7470.4	63		5,147.40	4,085.10	Frequency = 50.30Hz.

1.7C BILATERAL AGREEMENT UNITS DISPATCH - THURSDAY 11/01/2018

FEEDERS NAME	MAX. LOAD (MW)	TIME (HRS)		REMARK	
Egbin ST6 120MW GENERATION TO IKEJA ELECTRICITY DISTRIBUTION COMPANY					
OGBA	U-STEEL	1	0200HRS	24	NIL
	PTCEXPRESS	7	1600HRS	24	NIL
	SANKYO	ON	0100HRS	16	TRIPPING ON T3-60MVA XF ON CB LOCKOUT
	FEEDER 8	11	0700HRS	16	TRIPPING ON T3-60MVA XF ON CB LOCKOUT
IKORODU	PULK IT	4	1500HRS	24	NIL
	INDUSTRIAL	23	2100HRS	24	NIL
	SPINTEX	5	0900HRS	24	NIL
	DANGOTE	2	0400HRS	24	NIL
	LAND CRAFT	41	0200HRS	24	NIL
ALAUUSA	TR4 15MVA	8	1600HRS	24	NIL
	TR5 -15MVA	6	1100HRS	24	NIL
	ALAUUSA	17.4	1500HRS	24	NIL
PTC (MARYLAND)	16	1100HRS	24	NIL	
TOTAL LOAD	141.4				

BILATERAL AGREEMENT LOAD DISPATCH
60MW PARAS ENERGY GENERATION TO CEB

FEEDER	MAX	TIME	HOURS IN SERVICE	REMARK
Ikeja West/Sakete 330KV line	71	22:00	24Hrs	NIL

5.0 **OUTAGES:**

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

- 03:22 -18:30Hrs, Rivers IPP GT1 tripped due to loss of supply to their stations. LHR = 157MW.
- 06:14 - 17:34Hrs, Delta P/S GT19 tripped on high air inlet differential pressure. LHR = 96MW
- 07:02 – 08:15Hrs, Ibom Power GT3 tripped on reverse power due to tripping of Ibom/Eket 132kV line. LHR = 102.4MW
- 07:19 - 13:03Hrs, Delta P/S GT16 tripped on high air inlet differential pressure. LHR = 60MW.

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

- 07:06 – 08:06Hrs, Ibom/Eket 132kV line tripped at Eket T/S on O/C. LHR = 82.4MW
- 07:27 – 07:56Hrs, Alaoji/Afam/Port Harcourt 132kV line 2 CB tripped at Alaoji T/S on Microm Relay: I>L3 & T1, >L1, 2 & 3. LHR = 36MW
- 07:43 – 08:12Hrs, Olorunsogo/Ikeja-West 330kV line (cct R1W) CBs tripped at both ends on the following relay indications:
At Olorunsogo T/S:
NARI Relay: PC Red phase trip - OP, C = 009ms, PB Red phase trip – OP, ABC = 00040ms, 3-P Red Phase, trip-OP, ABC = 0040ms, ZMI – OP, ABC = 00029ms, fault location = 12.6km
At Ikeja-West T/S:
Siprotec Relay: General trip, Yellow phase fault, zone1 trip, 50N/51N trip, phase B, 5x- BPUIP – Blue phase, ZI pick up, zone 1 trip, phases AB&C 85-21 sent, distance = 34.7km. LHR = 212MW
- 16:59 through 24:00Hrs, Ogba T/S 60MVA 132/33kV transformer T3 primary & secondary CBs tripped on CB lock out alarm. LHR = 11MW.
- 16:50 – 17:08Hrs, Alaoji/Afam 132kV line 2 CB tripped at Alaoji T/S on Microm relay trip 1> L1 & 2, ti > L1 – 3. LHR = 68MW.

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

- 09:28 - 13:17Hrs, Shiroro 411G1 was shut down for monthly inspection. No load loss as 150MW was transferred to 411G4.
- 09:40 – 17:08Hrs, Egbin/Aja 330kV line 2 (cct N4J) was taken out to enable LMD crew replace corroded glass insulators with silicone composite type on towers #11 & 12. No load loss as the line was on soak.
- 11:26 – 14:45Hrs, Onitsha/Alaoji 330kV line (cct T4A) was taken out to enable LMD crew change one of the twin down dropper conductor that got cut from the line tap. Load loss = 114MW
- 11:29 – 13:31Hrs, Egbin T/S 2x150MVA 330/132/33kV IBTR1 & 2 330kV tie CB 52-2 was taken out for annual preventive maintenance. No load loss as CB52-1 was in service.
- 12:04 – 15:50Hrs, Osogbo/Ayede 330kV line (cct H2A) was taken out to enable LMD crew remove dangling optic fiber cable between towers #231 & 232. No load loss as cct R2A was in service.
- 12:54 – 14:14Hrs, Ikeja-West/Agbara 132kV line 1 was taken out for annual preventive maintenance on the line CB at Agbara T/S. No load loss as line 2 was in service.
- 12:56 - 15:58Hrs, Geregu Gas GT13 was shut down to enable maintenance crew check and rectify cause of the humming noise emanating from the unit. Load loss = 129MW.

5(D) **URGENT OUTAGES:**

- 10:32 – 14:00Hrs, Delta/Effurun 132kV line was taken out for maintenance crew to treat hot spot on the Yellow Phase main bus down dropper conductor clamp at Delta T/S. LHR = 74.2MW.
- 10:33 – 14:43Hrs, Delta/Benin 132kV line was taken out for maintenance crew to treat hot spot on the Yellow Phase main bus down dropper conductor clamp at De T/S. LHR = 37.1MW.
- 10:41 – 13:58Hrs, Delta T/S 60MVA 132/33kV transformer T1 was also taken out for maintenance crew to treat hot spot on the Yellow Phase main bus down dropper conductor clamp. LHR = 7.1MW.
- 10:43 – 14:25Hrs, Delta T/S 60MVA 132/33kV transformer T3 was taken out for maintenance crew to treat hot spot on the Yellow Phase main bus down dropper conductor clamp. LHR = 0.1MW.
- 10:43 – 13:30Hrs, Hadejia T/S 15MVA 132/33kV transformer TR2 was taken out on emergency due to serious oil leakage observed on the transformer. Load loss = 6MW
- 10:58 - 16:50Hrs, Egbin P/S ST5 was shut down due to oil intake line problem. Load loss = 62MW
- 11:04 - 14:09Hrs, Delta/Oghara 132kV line was taken for maintenance crew to treat hot spot on the Yellow Phase main bus down dropper conductor clamp at Delta T/S. LHR = 4.8MW.
- 13:35 – 15:33Hrs, Osogbo/Ilesha/Ife 132kV line was taken out for safe working space to allow LMD mend cut conductor strands on the Yellow Phase CVT of Osogbo/Iwo 132kV line at Osogbo T/S. LHR = 53MW.
- 16:15 through 24:00Hrs, Ibom Power GT3 was shut down due to outage on the 2 numbers diesel black starting units. Load loss = 60MW.
- 18:37 – 18:54Hrs, Gbarain NIPP GT2 was shut down due to gas constraints. Load loss = 103.38MW.

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

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

5 (G) **330KV LINES THAT ARE OUT ON VOLTAGE CONTROL:-** ccts A1S, U1A, D2K & K4U.

5 (H) **330KV LINES THAT ARE OUT ON BREAKER PROBLEM-** cct N4J (on soak at Egbin T/S)

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

5 (J) **330KV LINES THAT ARE OUT ON LINE FAULT:-** cct S5B

6 **WEATHER REPORT:-** NIL

7 **INTERNATIONAL LINES:-**

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

Maximum load - 251MW at 21:00Hrs.
Minimum load - 178MW at 08:00Hrs.

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

Maximum load - 85MW at 19:00Hrs.
Minimum load - 3.0MW at 08:00Hrs.

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

Maximum load - 27.5MW at 20:00Hrs.
Minimum load - 12.0MW at 02:00Hrs.

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 2 - OTHER 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.

GROUP 7 - ALL OTHER PLANTS.

8 MISCELLANEOUS:-

- 1 00:33Hrs, Afam VI P/S GT12 was shut down on frequency management.
Load loss = 110MW
- 2 02:02Hrs, Jebba T/S 75MX Shunt Reactor 2R2 was put in service for voltage control. V/P = 345/342kV
- 3 06:04Hrs, Gbarain GT2 was tied. The unit was out due to loss of supply to their stations.
- 4 07:34Hrs of 07/01/2018 – 16:27Hrs, Aja T/S, 60MVA 132/33kV transformer TR12 primary CB tripped on differential protection. Load loss was Negligible.
Note: Faulty 300KVA grounding transformer was de-commissioned and replaced with new 160KVA grounding transformer before restoration.
- 5 08:13Hrs, Osogbo T/S 75MX Shunt Reactor 4R1 was put in service for voltage control. V/P : 348/342kV
- 6 08:17 - 13:12Hrs, Jebba/Osogbo 330kV line 2 (cct J2H) was taken out for voltage control.
V/P = 347/345kV
- 7 08:24Hrs, Kainji/Jebba 330kV line 1 (cct K1J) was taken out for voltage control.
V/P = 344/340kV
- 9 09:20 – 15:26Hrs, Azura-Edo IPP GT11 was tied for load rejection test.

10 SYSTEM BLACK START CAPABILITY

Delta, Shiroro & Egbin - Available.

11 (A) COMMUNICATION MEDIA

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

11 (B) SCADA RTU STATUS

STATIONS	NO. INSTALLED	NO OF RTU DISTURBED	NO OF RTU WORKING
POWER STATIONS	8	5	3
330kV	19	7	12
132kV	102	87	15

12(A) UNAVAILABLE TRANSFORMERS/REACTORS:

SHIRORO REGION:

- 1 Apo T/S 60MVA 132/33kV transformer TR3 - Burnt.
- 2 Birnin Kebbi 75MX Reactor R1.

KADUNA REGION:

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

- 10 09:25Hrs, Shiroro 411G4 was tied. The unit was out on water management.
- 11 10:08Hrs, Egbin P/S was instructed by NGC to reduce generation from 390MW to 300MW due to low gas pressure.
- 12 13:01Hrs, Jebba 2G1 was shut down due to low governor oil pressure. Load loss = 100MW
- 13 13:02Hrs, Jebba 2G5 was tied to swap with 2G1.
- 14 13:21Hrs, Shiroro 411G4 was shut down to swap with 411G1. No load loss as 141MW transferred to 411G1.
- 15 14:03Hrs, Osogbo T/S 75MX Shunt Reactor 4R1 was taken out of service due to low voltage in Lagos. V/P at Osogbo = 331/335kV
- 16 16:11Hrs, Ikeja West T/S 300MVA 330/132/33kV transformer T4 was restored on soak.
- 17 17:15Hrs, Jebba P/S 2G4 was tied. The unit was out on frequency management.
- 18 17:49Hrs, Kainji/Jebba 330kV line (cct K1J) was restored. The line was out on voltage control. V/P: 331/336kV.
- 19 19:12Hrs, Jebba P/S 2G4 was shut down on frequency management. LHR = 87MW.
- 20 19:38Hrs, Jebba 2G1 was tied to swap with 2G2.
- 21 22:51Hrs of 10/01/2018 – 16:59 of 11/01/2018, Yenagoa T/S 40MVA 132/33kV transformer T1 tripped on Buchholz and REF with oil spewing/leaking from the top of the transformer. LHR = 7.3MW.
- 29 22:57Hrs, Benin T/S 330kV 75MX Reactor 3R2 was taken out of service on voltage control. V/P = 329/332kV.
- 30 **LACK OF REACTOR AND UNRELIABLE STATION SERVICE SUPPLY AT IKOT-EKPENE T/S ARE HINDERING SMOOTH OPERATION.**

12(D) LAGOS REGION

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

SHIRORO REGION:- NII

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.

OSOGBO 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 NIL

- 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/Iire 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.
- 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

