

# TRANSMISSION COMPANY OF NIGERIA

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

**DAILY OPERATIONAL REPORT OF THURSDAY 28/02/2019**

**FOR: EVENTS OF WEDNESDAY 27/02/2019**

**1.0 EXECUTIVE OPERATIONS SUMMARY:**

**1.1 GENERATION PROFILE: NATIONAL STATISTICS**

DETAILS	MW	HRS	DATE
PEAK DEMAND FORECAST (CONNECTED + SUPPRESSED LOAD)	23,960	23:00	27/02/2019
GENERATION CAPABILITY	5637.8	-do-	-do-
UNITS ON BAR CAPABILITY AT PEAK	4772.2	-do-	-do-
PEAK GENERATION	4477.7	-do-	-do-
LOWEST GENERATION	3607.9	08:00	27/02/2019
8-HOURLY DURATION PEAK	4213.9	0100-0800	-do-
	4169	0900-1600	-do-
	4499.9	1700-2400	-do-
PEAK GENERATION TO DATE	5375	21:30	7/2/2019
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	Omotosho T/S	08:00
LOWEST VOLTAGE FOR THE DAY	300	Gombe & Kano T/S	04:00 & 09:00

**1.3 FREQUENCY RANGE**

DETAILS	HZ	HRS
NOMINAL FREQUENCY	50	
STATUTORY LIMITS	49.75-50.25	
HIGHEST FREQUENCY	50.56	10:43
LOWEST FREQUENCY	49.78	20:12

**1.4 SYSTEM COLLAPSE UP DATE**

Date of last total collapse: 20th Feb., 2019		No. of days since last total collapse: 08											
Date of last partial collapse: 12th April, 2018		No. of days since last partial collapse: 320											
Highest No of days ever attained in-between total collapses: 134		Highest No of days ever attained in-between partial collapses: 243											
	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	2	--	1
2011	Total	--	--	--	--	4	3	1	1	--	1	2	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		2		2	12
	Partial	0	0	0	1	0			0				1
2019	Total	4	1										5
	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	406	349
2 JEBBA	HYDRO	384	249
3 SHIRORO	HYDRO	419	122
4 EGBIN ST2 - 5	STEAM	441	408
5 SAPELE	STEAM	60	41
6 DELTA	GAS	244	266
7 AFAM IV-V	GAS	50	45
8 GEREGU GAS	GAS	404	204
9 OMOTOSHO GAS	GAS	90.7	139.7
10 OLORUNSOGO GAS	GAS	141.1	150.8
11 GEREGU NIPP	GAS	0	0
12 SAPELE NIPP	GAS	98	91.1
13 ALAQJI NIPP	GAS	109.9	111.1
14 OLORUNSOGO NIPP	GAS	0	0
15 OMOTOSHO NIPP	GAS	108.1	101.3
16 ODUKANI NIPP	GAS	199.2	184.3
17 IHOVBOR NIPP	GAS	95.2	90.7
18 OKPAI	GAS	182	180
19 AFAM VI	GAS	278	236
20 IBOM POWER	GAS	76.1	72.7
21 ASCO	GAS	0	0
22 A.E.S	GAS	0	0
23 OMOKU	GAS	57.6	57.4
24 TRANS AMADI	GAS	48.4	0
25 RIVERS IPP	(GAS)	0	130
26 AZURA - EDO IPP	(GAS)	420	225
27 EGBIN ST6	(GAS)	0	0
28 PARAS ENERGY	(GAS)	67	64.6
29 GBARAIN NIPP	GAS	98.4	89.2
<b>TOTAL</b>		<b>4477.7</b>	<b>3607.9</b>

  

1.6 ENERGY GENERATED/ENERGY SENT OUT:					
STATION	TURBINE	ENERGY GENERATED	AV. POWER GENERATED	ENERGY SENT OUT	AV. POWER SENT OUT
		MWH	MWHH	MWH	MWHH
1 KAINJI	HYDRO	9546.00	397.75	9528.70	397.03
2 JEBBA	HYDRO	8207.00	341.96	8183.64	340.99
3 SHIRORO	HYDRO	6956.00	289.83	6926.08	288.59
4 EGBIN ST2 - 5	STEAM	10251.00	427.13	9623.90	401.00
5 SAPELE	STEAM	1357.50	56.56	1257.00	52.38
6 DELTA	GAS	6145.55	256.06	6037.60	251.57
7 AFAM IV-V	GAS	1191.36	49.64	1185.63	49.40
8 GEREGU GAS	GAS	6712.60	279.69	6684.21	278.51
9 OMOTOSHO GAS	GAS	2785.00	116.04	2763.60	115.15
10 OLORUNSOGO GAS	GAS	3560.91	148.37	3531.22	147.13
11 GEREGU NIPP	GAS	0.00	0.00	0.00	0.00
12 SAPELE NIPP	GAS	2347.06	97.79	2329.88	97.08
13 ALAQJI NIPP	GAS	2477.87	103.24	2476.98	103.21
14 OLORUNSOGO NIPP	GAS	0.00	0.00	0.00	0.00
15 OMOTOSHO NIPP	GAS	2602.60	108.44	2540.10	105.84
16 ODUKANI NIPP	GAS	5196.22	216.51	5159.82	214.99
17 IHOVBOR NIPP	GAS	2360.00	98.33	2337.20	97.38
18 OKPAI	GAS	4420.00	184.17	4293.50	178.90
19 AFAM VI	GAS	6042.82	251.78	5939.00	247.46
20 IBOM	GAS	1949.39	81.22	1940.00	80.83
21 ASCO	GAS	0.00	0.00	0.00	0.00
22 AZURA - EDO IPP	GAS	7225.65	301.07	7199.20	299.97
23 A.E.S	GAS	0.00	0.00	0.00	0.00
24 OMOKU	GAS	1398.60	58.28	1356.91	56.54
25 TRANS AMADI	GAS	508.60	21.19	497.80	20.74
26 RIVERS IPP	GAS	2247.70	93.65	2243.90	93.50
27 EGBIN ST6	STEAM	0.00	0.00	0.00	0.00
28 PARAS ENERGY	GAS	1380.70	57.53	1372.50	57.19
29 GBARAIN NIPP	GAS	1618.00	67.42	1604.60	66.86
<b>TOTAL</b>		<b>98,488.13</b>	<b>4,103.67</b>	<b>97,012.97</b>	<b>4,042.21</b>

1.7A GENERATION POSITION AT 06:00HRS OF THURSDAY 28/02/2019

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 50.18Hz.	REMARKS	
PRIVATISED COMPANIES	KAINJI HYDRO	1G5, 6, 11 & 12	440	440	1G5, 6, 11 & 12	440	406	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.	
		4			4				
	JEBBA HYDRO	6	2G1 - 4 4	381	373	2G1 - 4 4	373	373	2G5 - Out for annual maintenance. 2G6 - Out due to burnt generator winding and AVR.
	SHIRORO HYDRO	4	411G1, 2 & 4 3	450	450	411G1, 2 & 4 3	450	425	411G3 - Out due to radiators oil leakage.
	EGBIN STEAM	6	ST1, 2, 4 & 5	880	403	ST1, 2, 4 & 5	403	403	ST1, 2, 4 & 5 - Generation reduced due to gas constraints & low load demand by the Discos. GT3 - Out due to technical problems. GT6 - Out on gas constraints.
			4			4			
	SAPELE (STEAM)	6	ST3	120	60	ST3	60	60	ST1 & 2 - Tripped on high vibration. ST4 - Out on fault. ST5 - Awaiting major overhaul.
			1			1			
	DELTA (GAS)	18	GT6, 7, 10 - 13, 16 & 20	330	257	GT6, 7, 10 - 13, 16 & 20	257	257	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. GT9, 15 & 19 - Out on gas constraints. Generation reduced due to gas constraints.
			8			8			
AFAM IV & V (GAS)	8	GT18	70	50	GT18	50	50	GT11 - 12 - De-commissioned and scrapped. GT13, 14 & 16 - Out on blade failure. GT17 - Out due to gas constraint. GT19 & 20 - Awaiting major overhaul.	
		1			1				
GEREGU GAS	3	GT11 - 13 3	435	435	GT11 - 13 3	435	403	Available units on bar.	
OMOTOSHO GAS	8	GT2, 4, 7 & 8 4	168	152	GT2, 4 & 8 3	91	91	GT1, 3, 5, 6 & 7 - Out due to gas constraint.	
OLORUNSOGO GAS	8	GT2, 4, 5, 6 & 7 5	210	140.6	GT2, 4, 5, 6 & 7 5	140.6	140.6	GT1, 3 & 8 - Out due to gas constraint.	
NIPP	GEREGU NIPP	0	0	0	0	0	0	GT21 - 23 - Out due to gas constraints.	
		0			0				
	SAPELE NIPP	4	GT1	112.5	112.5	GT1	112.5	98.2	GT2 - Out due to leakage on the vent line. GT3 - Out due to gas constraint. GT4 - Out due to high air inlet differential pressure.
			1			1			
	ALAOJI NIPP GAS	4	GT2	120	115	GT2	115	72.5	GT2 - Generation reduced due to low load demand by the Discos. GT3 - Shut down due to lack of spare part. GT4 - Tripped on over voltage lockout relay trip.
			1			1			
	OLORUNSOGO NIPP	6	0	0	0	0	0	0	GT1, 2 & 3 - Shut down due to low gas pressure. GT4 - Out due to ignition failure and control relay failure alarm. ST13 & ST23 - Out on maintenance.
			0			0			
OMOTOSHO NIPP GAS	4	GT3	125	120	GT3	120	107.5	GT1 - Out on maintenance. GT4 - Out due to gas constraint.	
		1			1				
ODUKPANI NIPP	5	GT1 - 5	575	575	GT1	115	106.2	GT2, 3, 4 & 5 - Out due to low load demand by the Discos.	
		5			1				
IHOVBOR NIPP	4	GT1	112.5	112.5	GT1	112.5	95.4	GT1 - On manual adjustment to frequency. GT2 - Out due to gas constraints. GT3 - Tripped on high vibration.	
		1			1				
GBARAIN NIPP GAS	1	GT2	112.5	112.5	GT2	112.5	103.6	Available unit on bar.	
		1			1				
IPP	OKPAI GAS/STEAM	GT12 & ST18	220	220	GT12 & ST18	220	184	GT11 - Out on maintenance. ST18 - Generation reduced due to boiler problem	
		2			2				
	AZURA - EDO	3	GT11 - 13	461	461	GT11 & 12	320	290	GT13 - Out due to low load demand by the Discos.
			3			2			
	AFAM VI GAS/STEAM	4	GT11 - 13 & ST10	640	640	GT13	150	134	GT11, 12 & ST10 - Out due to low load demand by the Discos. GT12 - Generation reduced due to low load demand by the Discos.
			4			1			
	IBOM POWER GAS	3	GT3	120	115	GT3	115	83.1	GT1 & 2 - Out due to fire outbreak on the control panel. GT3 - Generation reduced due to line constraint
			1			1			
	AES	9	0	0	0	0	0	0	Out of production since 27/09/2014.
			0			0			
ASCO	2	0	0	0	0	0	0	ST1 - Shut down due to leakage in the furnace.	
		0			0				
OMOKU GAS	6	GT1, 3 & 5	75	60	GT1, 3 & 5	58.3	58.3	GT2 - Tripped on high vibration. GT4 - Out on major overhaul. GT6 - Out on maintenance.	
		3			3				
TRANS-AMADI	4	GT1, 2 & 4	75	60.8	GT1, 2 & 4	60.8	60.8	GT3 - Out on fault.	
		3			3				
RIVERS	1	0	0	0	0	0	0	GT1 - Out due to gas constraint.	
SUB TOTAL	141	63	6232.5	5464.9	54	4311.2	4002.2	Frequency = 50.18Hz.	

1.7B GENERATION POSITION AT 06:00HRS OF THURSDAY 28/02/2019 FOR UNITS ON BILATERAL AGREEMENT									
	PARAS ENERGY	8	GT3 - 10	70	66.2	GT3 - 10	66.2	66.2	Available units on bar.
			8			8			
	SUB TOTAL	8	8	70	66.2	8	66.2	66.2	
	GRAND TOTAL	149	71	6302.5	5531.1	62	4,377.40	4068.4	Frequency = 50.18Hz

1.7C BILATERAL AGREEMENT UNITS DISPATCH - WEDNESDAY 27/02/2019								
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		21		T2 60MVA TRANSFORMER SECONDARY TRIPPED ON E/F	
	PTC EXPRESS	ON	0100HRS		21		T2 60MVA TRANSFORMER SECONDARY TRIPPED ON E/F	
	SANKYO	2	0100HRS		24		NIL	
	FEEDER 8	12	1100HRS		24		NIL	
IKORODU	PULK IT	4	0900HRS		24		NIL	
	INDUSTRIAL	9	0800HRS		24		NIL	
	SPINTEX	14	2300HRS		24		NIL	
	DANGOTE	2	1600HRS		24		NIL	
	LAND CRAFT	22	2400HRS		24		NIL	
ALAUSA	TR4 15MVA	8.3	1300HRS		24		NIL	
	TR5 -15MVA	6	1600HRS		24		NIL	
	ALAUSA	15.6	1000HRS		24		NIL	
MLAND	PTC (MARYLAND)	20	1300HRS		24		NIL	
	<b>TOTAL LOAD</b>	<b>114.9</b>						

BILATERAL AGREEMENT LOAD DISPATCH 60MW PARAS ENERGY GENERATION TO CEB OF WEDNESDAY 27/02/2019							
FEEDER	MAX LOAD (MW)	TIME (HRS)	MIN LOAD (MW)	TIME (HRS)	HOURS IN SERVICE	TOTAL (MWH)	REMARK
Ikeja West/Sakete 330kV line	69.4	20:00	61.2	11:00	21	1380.7	Due to the tripping of Ikorodu/Shagamu 132kV line.

BILATERAL AGREEMENT MAIN STREAM ENERGY KAINJI WEDNESDAY 27/02/2019									
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	ON	50	08:00	16	19:00	24	880	ON
KAM STEEL		25.0	26.3	16:00	0.5	01:00	24	169.2	SUPPLY NOT INTERRUPTED
ASHAKA CEMENT		0	11.8	05:00	7.9	06:00	24	223.8	SUPPLY NOT INTERRUPTED
XING 1	33kV feeder	0	21.85	02:00	10.3	16:00	24	384.9	SUPPLY NOT INTERRUPTED
XING 2		0	1:12	04:00	7.35	07:00	24	294.1	SUPPLY NOT INTERRUPTED
KAM INTEGRATED		15	4.8	09:00	1.9	20:00	24	75.1	SUPPLY NOT INTERRUPTED
OLAM FLOUR MILLS		3	2.1	08:00	21:36	21:00	24	35.8	SUPPLY NOT INTERRUPTED
LORDSMITH		3	0.5	01:00	0.5	22:00	24	12	SUPPLY NOT INTERRUPTED



5.0 OUTAGES:

5 (A) FORCED OUTAGES (GENERATION):

- 05:45Hrs, Para Energy GT3-10 tripped due to the tripping of Ikorodu/Shagamu 132kV line. LHR = 67MW.  
14:28Hrs – GT3 was tied, 14:30Hrs – GT4 was tied, 14:31Hrs – GT5 was tied, 14:32Hrs – GT6 was tied, 14:34Hrs – GT7 was tied, 14:35Hrs – GT8 was tied, 14:37Hrs – GT9 was tied & 14:38Hrs – GT10 was tied.
- 12:39Hrs, Paras Energy GT3-10 were shut down for maintenance job on Ikorodu/Shagamu 132kV line. Load loss = 62.6MW.  
14:28 - GT3 was tied, 14:30Hrs - GT4 was tied, 14:31Hrs - GT5 was tied, 14:32Hrs - GT6 was tied, 14:34Hrs - GT7 was tied, 14:35Hrs - GT8 was tied, 14:37Hrs - GT9 was & 14:38Hrs - GT10 was tied.
- 13:08 - 14:00Hrs, Sapele GT1 tripped due to switching problem at Sapele T/S switch yard. LHR = 88.1MW.
- 13:01Hrs, Delta GT16 & 20 tripped and shut down on generator and transformer differential lockout relays. LHR = 77MW & 78MW respectively.  
17:59Hrs – GT16 was tied & 13:55Hrs – GT20 was tied
- 13:01Hrs, Delta GT6 & 7 generator breakers opened auto and the two units went on full speed no load. LHR = 19MW & 17MW respectively.  
13:54Hrs – GT6 was tied, & 13:56Hrs – GT7 was tied.
- 20:44 through 24:00Hrs, Rivers IPP GT1 tripped on low gas pressure. LHR = 50MW.

5 (B) FORCED OUTAGES (TRANSMISSION):

- 05:45 – 06:04Hrs, Ikorodu/Shagamu 132kV line CB tripped at Ikorodu T/S on distance protection BC zone 1, distance = 11.5km. Load loss = 66MW.
- 08:31 through 24:00Hrs, Omotosho/Ikeja West 330kV cct M5W line tripped at both ends on the following relay indications:  
**At Omotosho T/S:** PSL 601 Relay: RTPA, distance and zero sequence protection start fast distance trip Phase A trip, ground, distance zone 1 trip, zero sequence zone 1 trip, Phase A grounded, distance = 12.72km  
Auxiliary Relay: Trip A, B & C, stages 1 & 2 PSL 602 Relay – same as PSL 601 but distance is 12.92km. LHR = 324MW.  
**At Ikeja West T/S:** Siprotec Relay: General trip Red Phase fault, DEF OPTD 50N – 5IN pickup PU time = 580ms, Trip time 497ms, distance = 48.8km.  
No load loss as cct B5M was in service.  
08:49Hrs, Trial restoration of the circuit at Omotosho T/S failed on the following relay indications:  
PSL 601 Relay: RTIP A,B & C, zero sequence zone 1 trip, permanent trip Phase A grounded, distance = 12.12km.  
Auxiliary Relay: Trip ABC stages 1 & 2. The line was left out for patrol.
- 13:01 - 13:58Hrs, Sapele/Delta 330kV line (cct S4G) CB tripped at both ends on the following relay indications.  
**At Sapele T/S:** SEL relay 311L Yellow Phase-G zone 2, distance 33.82km.  
**At Delta G/S:** Siprotec Relay – O/C Yellow Phase & E/F zone 1 trip, distance pick up L2E. Pick up time = 121ms, Trip time = 66ms, distance = 52.7km.  
No load was interrupted as cct G3B was in service.
- 19:52 - 20:06Hrs, Ihovbor/Benin 330kV line (cct V7B) CBs tripped at both ends on the following relay indications:  
**At Benin T/S:** Ohmega Relay – zone 1, Phase A to Earth. On ABB Relay – Trip – trip, Trip – T2L1, THS – STFW(L1, BE), zone trip, EFC – E/F, AR in progress, DEF – block, zone 2 and zone 3 – start, ZC1B – CSL1, MVAJ – J86A flat TOC-STU, Fault location = No data.  
**At Ihovbor T/S:** Micom Relay: Main distance protection started Phase A-N, distance start zone 3, O/C start IZ1, E/F start IN-1, Fault location = 22.93km.  
Master trip, relay MVAJ 3Phases flagged. LHR = 52.6MW.

5 (C) PLANNED OUTAGES:- Nil

5 (D) URGENT OUTAGES:-

- 10:42 – 14:39Hrs, Benin/Ajaokuta 330kV line 2 (cct B12J) CB was opened at Ajaokuta T/S in order to restore Ajaokuta T/S 162MVA 330/132kV transformer T2 that was out on fault, the transformer has no primary CB. No load was interrupted as cct B11J was in service.
- 12:33 - 14:08Hrs, Ikorodu/Shagamu 132kV line was taken out for maintenance crew to repalce cut Yellow Phase conductor on tower #186. Cut conductor strands were also amended. Load loss = 18MW.
- 13:30 - 20:27Hrs, Gbarain GT2 was shut down due to low gas pressure. Load loss = 86.9MW.
- 18:18 - 18:50Hrs, Agbara/Ojo 132kV line 2 was opened by control to reduce load flow on Benin/Egbin 330kV line (cct B6N). Load loss = 34.0MW.

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 WITH EFFECTIVE POWER PURCHASE AGREEMENT (PPA)

GROUP 2B - OTHER GENERATING UNITS IDENTIFIED TO BE ON FREE GOVERNOR CONTROL.

GROUP 3 - OTHER UNITS IDENTIFIED TO BE OFFERING REGULATORY RESERVE.

5 (E) EMERGENCY OUTAGES:- Nil

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, K4U, M5W, A1K, A1S, K1U, K3U & K4U

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

6 WEATHER REPORT:- Rainfall reported at Shiroro.

7 INTERNATIONAL LINES:-

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

Maximum load - 252MW at 16:00Hrs.  
Minimum load - 210MW at 08:00Hrs.

B BIRNIN KEBBI/NIAMEY 132KV LINE

Maximum load - 103MW at 14:00Hrs.  
Minimum load - 158MW at 08:00Hrs.

C KATSINA/GAZAOUA/MARADI 132KV LINE

Maximum load - 40.0MW at 20:00Hrs.  
Minimum load - 18.8MW at 10:00Hrs.

8 MISCELLANEOUS:-

1 00:07 – 05:09Hrs, Jebba 2G2 was shut down due to low load demand by the Discos.  
Load loss = 92MW.

2 01:36 - 13:41Hrs, Geregu Gas GT13 was shut down due to low load demand by the Discos.  
Load loss = 133MW.

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	4	4
330kV	19	9	10
132kV	102	81	21

**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.
- Egbin/Oke-Aro 330kV line 2 (N8K) Defective. Needs replacement.
- Egbin/Ikeja-West Tie CB Defective. Needs replacement.
- Egbin/Aja 330kV line 3 (cct N3J) - Tie CB defective.Needs replacement.

**BENIN REGION:**

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

**PORT HARCOURT REGION:**

cct A1K CB

- 02:07 – 13:59Hrs, Odukpani NIPP GT3 was shut down due to low load demand by the Discos. Load loss = 92.9MW.
- 07:33 - 09:38Hrs, Jebba 2G2 was shut down due to low load demand by the Discos. Load loss = 80MW.
- 09:38Hrs Jebba 2G2 was tied. The unit was out due to low load demand by the Discos.
- 10:27Hrs, Shiroro 411G4 was tied. The unit was out on water management.
- 11:45Hrs, Trans-Amadi GT1 was tied. The unit was out due to low gas pressure.
- 12:40Hrs, Katampe T/S 75MX Reactor was taken out of service for voltage correction. Voltage profile: 318/324kV.
- 13:58Hrs, Delta GT15 was tied. The unit was out due to gas constraint.
- 14:46Hrs, Omotosho NIPP GT3 was tied to swap with GT2.
- 14:39Hrs, Ajaokuta T/S 162MVA 330/132kV transformer T2 was restored. The transformer tripped at 19:59Hrs of 25/02/2019 on REF. The defective secondary Blue Phase lightning arrester was replaced before restoration.
- 14:58 through 24:00Hrs, Omotosho NIPP GT2 was shut down. The load was transferred to GT3.
- 15:21Hrs, Trans-Amadi GT2 was tied. The unit was out due to gas constraints
- 15:27 through 24:00Hrs, Omotosho Gas GT7 was shut down due to gas constraint. Load loss = 30.2MW.
- 18:06Hrs, Delta GT15 was shut down. The load was transferred to GT16.
- 18:33Hrs, Trans-Amadi GT4 was tied. The unit was out due gas constraint.

\*\*\*\*\* 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:**

- (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/Aimosho/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/Iire 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**

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

**12 (F) UNAVAILABLE SYNCHROSCOPES :**

- Ikeja West, Onitsha, Egbin, Ugwuaji, 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.

**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.



