

TRANSMISSION COMPANY OF NIGERIA

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

DAILY OPERATIONAL REPORT OF SUNDAY 03/02/2019

FOR: EVENTS OF SATURDAY 02/02/2019

1.0 EXECUTIVE OPERATIONS SUMMARY:

1.1 GENERATION PROFILE: NATIONAL STATISTICS

DETAILS	MW	HRS	DATE
PEAK DEMAND FORECAST (CONNECTED + SUPPRESSED LOAD)	23,960	21:15	02/02/2019
GENERATION CAPABILITY	5712.8	-do-	-do-
UNITS ON BAR CAPABILITY AT PEAK	5334.8	-do-	-do-
PEAK GENERATION	5033.8	-do-	-do-
LOWEST GENERATION	3583.8	14:00	02/02/2019
8-HOURLY DURATION PEAK	4553.6	0100-0800	-do-
	3975.4	0900-1600	-do-
	5033.8	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	346	Jebba T/S	11:00
LOWEST VOLTAGE FOR THE DAY	297	Sakete T/S	01:00

1.3 FREQUENCY RANGE

DETAILS	HZ	HRS
NOMINAL FREQUENCY	50	
STATUTORY LIMITS	49.75-50.25	
HIGHEST FREQUENCY	50.42	13:15
LOWEST FREQUENCY	49.97	15:45

1.4 SYSTEM COLLAPSE UP DATE

Date of last total collapse: 25th Jan., 2019							No. of days since last total collapse: 09								
Date of last partial collapse: 12th April, 2018							No. of days since last partial collapse: 296								
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		
2010	Total	---	3	1	--	3	3	--	2	2	1	4	22		
	Partial	1	--	--	1	3	4	4	3	2	--	1	20		
2011	Total	--	--	--	--	4	3	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	3	--	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	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				1	11		
	Partial	0	0	0	1	0	0	0					1		
2019	Total	4											4		
	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	404	269
2	JEBBA	HYDRO	381	253
3	SHIRORO	HYDRO	429	102
4	EGBIN ST2 - 5	STEAM	355	311
5	SAPELE	STEAM	0	0
6	DELTA	GAS	274	258
7	AFAM IV-V	GAS	46	0
8	GEREGU GAS	GAS	277	180
9	OMOTOSHO GAS	GAS	128.7	124.8
10	OLORUNSOGO GAS	GAS	230.4	199.2
11	GEREGU NIPP	GAS	261	170
12	SAPELE NIPP	GAS	96.6	86.3
13	ALAOJI NIPP	GAS	73.6	71.2
14	OLORUNSOGO NIPP	GAS	0	0
15	OMOTOSHO NIPP	GAS	108.5	105.5
16	ODUKPANI NIPP	GAS	200.5	150.8
17	IHOVBOR NIPP	GAS	107.8	87.9
18	OKPAI	GAS	318	233
19	AFAM VI	GAS	277	211
20	IBOM POWER	GAS	97.5	87.3
21	ASCO	GAS	0	0
22	A.E.S	GAS	0	0
23	OMOKU	GAS	55.3	36.3
24	TRANS AMADI	GAS	0	0
25	RIVERS IPP	(GAS)	152	120
26	AZURA - EDO IPP	(GAS)	442	225
27	EGBIN ST6	(GAS)	154	160
28	PARAS ENERGY	(GAS)	68.3	65.6
29	GBARAIN NIPP	GAS	96.6	96.9
TOTAL			5033.8	3583.8

1.6 ENERGY GENERATED/ENERGY SENT OUT:						
STATION	TURBINE	ENERGY GENERATED		ENERGY SENT OUT		
		MWH	MWH/H	MWH	MWH/H	
1	KAINJI	HYDRO	8773.00	365.54	8757.70	364.90
2	JEBBA	HYDRO	7714.00	321.42	7690.72	320.45
3	SHIRORO	HYDRO	5031.00	209.63	5003.33	208.47
4	EGBIN ST2 - 5	STEAM	11682.00	486.75	11078.30	461.60
5	SAPELE	STEAM	0.00	0.00	0.00	0.00
6	DELTA	GAS	5936.50	247.35	5844.60	243.53
7	AFAM IV-V	GAS	179.60	7.48	176.39	7.35
8	GEREGU GAS	GAS	5418.60	225.78	5392.25	224.68
9	OMOTOSHO GAS	GAS	3092.00	128.83	3069.30	127.89
10	OLORUNSOGO GAS	GAS	5272.38	219.68	5242.13	218.42
11	GEREGU NIPP	GAS	5351.12	222.96	5332.97	222.21
12	SAPELE NIPP	GAS	2365.70	98.57	2346.80	97.78
13	ALAOJI NIPP	GAS	1729.40	72.06	1728.00	72.00
14	OLORUNSOGO NIPP	GAS	0.00	0.00	0.00	0.00
15	OMOTOSHO NIPP	GAS	2564.40	106.85	2543.80	105.99
16	ODUKPANI NIPP	GAS	4666.40	194.43	4536.00	189.00
17	IHOVBOR NIPP	GAS	2270.00	94.58	2246.82	93.62
18	OKPAI	GAS	6036.00	251.50	5906.50	246.10
19	AFAM VI	GAS	6224.57	259.36	6115.00	254.79
20	IBOM	GAS	2215.87	92.33	2205.00	91.88
21	ASCO	GAS	0.00	0.00	0.00	0.00
22	AZURA - EDO IPP	GAS	7197.80	299.91	7171.45	298.81
23	A.E.S	GAS	0.00	0.00	0.00	0.00
24	OMOKU	GAS	1150.60	47.94	1117.31	46.55
25	TRANS AMADI	GAS	0.00	0.00	0.00	0.00
26	RIVERS IPP	GAS	2780.90	115.87	2780.40	115.85
27	EGBIN ST6	STEAM	0.00	0.00	0.00	0.00
28	PARAS ENERGY	GAS	1595.70	66.49	1589.00	66.21
29	GBARAIN NIPP	GAS	2242.10	93.42	2230.20	92.93
TOTAL			101,489.64	4,228.74	100,103.97	4,171.00

1.7A GENERATION POSITION AT 06:00HRS OF SUNDAY 03/02/2019

	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 50.17Hz.	REMARKS
PRIVATISED COMPANIES	KAINJI HYDRO	8	1G5, 6, 11 & 12 4	440	440	1G5, 6, 11 & 12 4	440	402	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	360	360	2G1, 3 & 4 3	286	286	2G2 - Out due to low load demand by the Discos. 2G5 - Out for annual maintenance. 2G6 - Out due to burnt generator winding and AVR.
	SHIRORO HYDRO	4	411G1, 2 & 4, 3	450	450	411G1 & 3 2	300	115	411G1 & 3 - Generation reduced due to low load demand by the Discos. 411G2 & 4 - Out for water management.
	EGBIN STEAM	6	ST2, 4, 5 & 6 4	880	538	ST2, 4, 5 & 6 4	538	494	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	287	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	47	GT17 1	47	47	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	GT11 & 13 2	290	270	GT12 - Out due to line limitation.
	OMOTOSHO GAS	8	GT1, 2, 6 & 7 4	168	131.6	GT1, 2, 6 & 7 4	131.6	131.6	GT3, 4, 5 & 8 - Out due to gas constraint.
	OLORUNSOGO GAS	8	GT1 - 8 8	336	304	GT1 - 6 & 8 7	266	197.7	GT7 - Out due to low load demand by the Discos. Generation reduced due to low load demand by the Discos.
NIPP	GEREGU NIPP	3	GT21 & 23 2	290	290	GT21 & 23 2	290	276	GT22 - Out on maintenance.
	SAPELE NIPP	4	GT2 1	112.5	112.5	GT2 1	112.5	96.3	GT1 - Out due to gas constraint. GT3 & 4 - Out due to high air filter differential pressure.
	ALAOJI NIPP GAS	4	GT2 1	120	74.4	GT2 1	74.4	74.4	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	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	115	GT2 1	115	108.9	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	218.2	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	109.4	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	101.6	Available unit on bar.
IPP	OKPAI GAS/STEAM	3	GT12 & ST18 3	300	220	GT12 & ST18 3	220	182	GT11 - out on maintenance. ST18 - Generation limited due to boiler problem.
	AZURA - EDO	3	GT11 - 13 3	461	461	GT11 - 13 3	461	291	GT12 & 13 - Generation reduced due to low load demand by the Discos.
	AFAM VI GAS/STEAM	4	GT12 & 13 2	300	300	GT12 & 13 2	300	275	GT12 - On stability test.
	IBOM POWER GAS	3	GT3 1	120	115	GT3 1	115	98.1	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	54.5	GT1, 3 & 5 3	54.5	54.5	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	120	Generation reduced due to low load demand by the Discos.
	SUB TOTAL	141	62	6272.5	5603	56	4966	4235.7	Frequency = 50.17Hz.

1.7B GENERATION POSITION AT 06:00HRS OF SUNDAY 03/02/2019 FOR UNITS ON BILATERAL AGREEMENT									
PARAS ENERGY	8	GT3 -10	70	67.2	GT3 -10	67.2	67.2	Available units on bar.	
	8	8			8				
SUB TOTAL		8	8	70	67.2	67.2	67.2		
GRAND TOTAL		149	70	6342.5	5670.2	64	5,033.20	4,302.90	Frequency = 50.17Hz

1.7C BILATERAL AGREEMENT UNITS DISPATCH - SATURDAY 02/02/2019									
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	0	0100HRS			13	DUE TO OUTAGE ON FEEDER 2		
	PTC EXPRESS	0	0100HRS			13	DUE TO OUTAGE ON FEEDER 2		
	SANKYO	3	2300HRS			21	OUTAGE ON 132KV CIRCUIT		
	FEEDER 8	11	0600HRS			20	OUTAGE ON 132KV CIRCUIT & TRIPPING ON INST O/C		
IKORODU	PULK IT	2	0100HRS			23	O/S DUE TO 33KV EXTENTION THAT IS O/S ON PLAN OUTAGE		
	INDUSTRIAL	4	0800HRS			22	O/S DUE TO 33KV BUS SECTION 3 THAT IS O/S ON PLAN OUTAGE		
	SPINTEX	7	0300HRS			24	NIL		
	DANGOTE	2	0200HRS			22	O/S DUE TO 33KV EXTENTION THAT IS O/S ON PLAN OUTAGE		
	LAND CRAFT	18	0200HRS			24	NIL		
ALAUUSA	TR4 15MVA	6.2	1900HRS			17	PT		
	TR5 -15MVA	3.7	2000HRS			17	PT		
	ALAUUSA	10	2000HRS			17	PT		
M/LAND	PTC (MARYLAND)	19	0800HRS			24	NIL		
TOTAL LOAD									

BILATERAL AGREEMENT LOAD DISPATCH									
60MW PARAS ENERGY GENERATION TO CEB OF SATURDAY 02/02/2019									
FEEDER	MAX LOAD (MW)	TIME (HRS)	MIN LOAD (MW)	TIME (HRS)	HOURS IN SERVICE	TOTAL (MWH)	REMARK		
Ikeja West/Sakete 330kV line	68	04:00	64.8	06:00	24	1595.7	NIL		
BILATERAL AGREEMENT MAIN STREAM ENERGY KAINJI SATURDAY 02/02/2019									
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	48	01:00	24	04:00	24	156	SUPPLY NOT INTERRUPTED
KAM STEEL		25.0	21	18:00	0.2	02:00	24	84.2	SUPPLY NOT INTERRUPTED
ASHAKA CEMENT		0	6.2	19:00	3.5	11:00	24	125.6	SUPPLY NOT INTERRUPTED
XING 1	33kV feeder	0	23.4	21:00	6.8	10:00	24	411.2	SUPPLY NOT INTERRUPTED
XING 2		0	2:24	24:00	7.8	21:00	24	327.7	SUPPLY NOT INTERRUPTED
KAM INTEGRATED		15	4.5	02:00	1.4	21:00	24	66.9	SUPPLY NOT INTERRUPTED
OLAM FLOUR MILLS		3	2	21:00	0.3	02:00	24	21.3	SUPPLY NOT INTERRUPTED
LORDSMITH		3	0.6	01:00	0.3	07:00	24	11.7	SUPPLY NOT INTERRUPTED

1.8 HYDROLOGICAL DATA: SUNDAY 03/02/2019

	KAINJI	JEBBA	SHIRORO
HEAD WATER ELEVATION (METERS)	141.69	103.26	374.35
TAIL WATER ELEVATION (METERS)	105.3	73.9	270.0
GROSS OPERATING HEAD (METERS)	36.39	29.36	104.35
AVERAGE TURBINE DISCHARGE (M3/SEC)	1104.00	1134.00	237.00
AVERAGE SPILLAGE (M3/SEC)	480.00	8.00	0.00
AVERAGE TOTAL STATION DISCHARGE (M3/SEC)	1584.00	1142.00	237.00
COMPUTED INFLOW (M3/SEC)	1584.00	1489.00	0.00
STORAGE DIFFERENTIAL	0.00	347.00	-237
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 SATURDAY 02/02/2019

	MAXIMUM LOAD (MW)	TIME (HRS)	ALLOCATED LOAD (MW)	MINIMUM LOAD (MW)	TIME (HRS)
ABUJA	547.0	11:00	546.94	406.9	17:00
EKO					
IKEJA					

2.0 GAS POSITION: SUNDAY 03/02/2019

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		538	562
DELTA (GAS)	266	915		310	605
OMOTOSHO GAS	127.9	336.8		131.6	206.2
OMOTOSHO NIPP	107	500		120	380
OLORUNSOGO (GAS)	233.1	336		266	70
OLORUNSOGO NIPP	0	750		0	750
SAPELE NIPP	87.8	500		112.5	387.5
SAPELE STEAM	0	720		0	720
AFAM IV-V	0	300		47	253
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		74.4	429.6
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		3157	5965.3

1 MMSCF IS EQUIVALENT TO 3.75MW

3.0 SPINNING RESERVE FOR : SATURDAY 02/02/2019

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

3.1 SYSTEM SPINNING RESERVE AS AT 0600HRS OF SUNDAY 03/02/2019 = 0MW. FREQUENCY 50.17Hz.

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 Sunday 03/02/2019 as at 0600Hrs was = 1253.3MW.

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 GT12	145	0	145	145
				0	
				0	
				0	
4.2 DUE TO LOW LOAD DEMAND BY THE DISCOS					
1	Shiroro 411G1 & 3	300	115	185	808.3
2	Jebba 2G2	90	0	90	
3	Olorunsogo Gas GT1 - 8	304	197.7	106.3	
4	Azura-Edo GT12 & 13	307	150	157	
5	Odukpani GT2 & 5	230	0	230	
6	Rivers GT1	160	120	40	
				0	
				0	
				0	
4.3 DUE TO WATER MANAGEMENT:					
1	Shiroro 411G1 & 4	300	0	300	300
Grand Total					1253.3

5.0 OUTAGES:

5 (A) FORCED OUTAGES (GENERATION): NIL

5 (B) FORCED OUTAGES (TRANSMISSION):

- 1 06:36 – 06:58Hrs, Kumbotso T/S 150MVA 330/132/33kV transformer T4A secondary CB tripped on O/C Blue phase. LHR = 104MW.
- 2 11:21 – 16:55Hrs, Zaria/Futua/Gusau 132kV line CB tripped at Gusau T/S on trip relay simultaneously, Gusau T/S 30MVA 132/33kV transformer T1A secondary CB tripped on E/F. LHR = 18MW.
- 3 15:48 – 16:08Hrs, Mando T/S 60MVA 132/33kV transformer T1 primary CB tripped on O/C 3 phases while the secondary CB tripped on 86/52 trip relay Turunku 33kV feeder also tripped on O/C and E/F. LHR = 28.9MW.
- 4 17:51 – 20:39Hrs, Ikorodun T/S 100MVA 132/33kV transformer T1 primary CB tripped without relay indications. LHR = 29MW

5 (C) PLANNED OUTAGES:-

- 1 10:12 – 16:49Hrs, Ogba/Alausa 132kV line 1 was taken out to allow EMD maintenance crew replace 60MVA 132/33kV transformer T3 secondary CB with a new one. Load loss = 36MW
- 2 10:12 – 15:03Hrs, Otta/Ogba 132kV line was isolated for LMD crew replace cut strands down dropper conductor to the C.V.T at Otta T/S on the Red and Blue phases. The line was already out.
- 3 10:13 – 15:07Hrs, Otta/Ogba 132kV line 2 was taken out to allow LMD crew mend Red phase down dropper conductor with cut strand at Otta T/S and also change down dropper conductor on the 3 phases at Otta T/S. Load loss = 38MW
- 4 11:17 – 13:15Hrs, Ikorodu T/S 60MVA 132/33kV transformer T2 was taken out to replace burnt bolts and nuts on the Yellow phase secondary C.T. Load loss = 22MW
- 5 12:23 – 18:35Hrs, Egbin T/S faulty CB52 – 12 (ST3 CB) was released to maintenance crew to allow them install new one.

5 (D) URGENT OUTAGES:-

- 1 10:42 – 12:00Hrs, Ogba T/S 60MVA 132/33kV transformer T2 was isolated for EMD crew to replace glowing bolts and nuts on the Yellow phase secondary C.T and Blue phase clamp. No load loss as the transformer was already out of service.
- 2 12:20 – 13:15Hrs, Ogba T/S 45MVA 132/33kV Mobitra isolated for EMD crew to change glowing bolts and nuts on the secondary Red phase clamp. No load loss as the transformer was already out of service.

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:- Rainfall reported at Akangba, Ikeja-West

7 INTERNATIONAL LINES:-

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

Maximum load - 282MW at 01:00Hrs.

Minimum load - 155MW at 14:00Hrs.

B BIRNIN KEBBI/NIAMEY 132KV LINE

Maximum load - 79MW at 20:00Hrs.

Minimum load - 57.0MW at 08:00Hrs.

C KATSINA/GAZAOUA/MARADI 132KV LINE

Maximum load - 29.9MW at 20:00Hrs.

Minimum load - 14.2MW at 11:00Hrs.

8 MISCELLANEOUS:-

1 02:00 - 15:43Hrs, Jebba 2G2 was shut down due to low load demand by the Discos. Load loss = 85MW

2 02:46 - 18:59Hrs, Shiroro 411G4 was shut down for water management. Load loss = 50MW

3 14:19Hrs, Omoku GT3 was tied. The unit was out on maintenance.

4 17:59Hrs, Mando T/S 150MVA 330/132/33kV transformer T1A was restored after the failed Raychem cable on the earthing transformer had been mended. The main transformer tripped at 00:12Hrs of 27/01/2019

5 18:26Hrs, Afam VI GT11 was shut down after reliability test. Load loss = 156MW

6 19:28Hrs, Afam VI GT12 was tied. The unit was out due to gas constraint.

7 19:32Hrs, Katampe T/S 75MX Shunt Reactor was switched off for voltage control. V/P = 323/328kV

8 20:08Hrs, Afam IV GT17 was tied. The unit was out due oil leakage.

**** **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	0
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	5	14
132kV	102	76	28

12(A) UNAVAILABLE TRANSFORMERS/REACTORS:

SHIRORO REGION:

- Birnin Kebbi 75MX Reactor R1.

ABUJA REGION

- Apo T/S 60MVA 132/33kV transformer TR3 - Burnt.

KADUNA REGION:

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

BAUCHI REGION:

- Gombe T/S -30MX Reactor R2A.

ENUGU REGION:

- Onitsha T/S 90MVA 330/132/13.8kV transformer 9T2 - Out due to differential fault.

LAGOS REGION:

- Oke-Aro T/S: 75MX Reactor R1.

PORT HARCOURT REGION

- 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.
- Osoybo/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.

BENIN REGION:

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

ENUGU REGION:

- New Haven/Yandev 132kV line CB - Faulty Red phase CB pole. Protection is transferred to the bus coupler CB.
- Abakaliki T/S 30MVA 132/33kV transformer T1A and 60MVA 132/33kV transformer T2 primary CBs - Breakers were not provided since commissioning but the
- 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.
- Oturkpo/Yandev 132kV By pass isolator - Canibalized to repair the line isolator.
- New Haven/Nkalagu 132kV line 2 ground switch - Canibalized Red phase female contact and canibalized Yellow phase male contact.

SHIRORO REGION

- Jebba T/S 75MX reactor 2R2 CB - exploded.

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/Osoybo line. - 95 spans.
- Ikeja West/Alimosho/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/Itire 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 Osoybo 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, Uguwaji, 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.
- AGM (S/O) - 08056002757, CUG: 08129458475

