

**Bangladesh Power Development Board
DAILY ELECTRICITY GENERATION REPORT**

Office of the Member, Generation
Tel : 9564667, 9551095

Month May, 2021				Day : Thursday				Date : 06.05.21									
Probable Maximum Demand :				12200	MW	Probable Maximum Generation :				15467	MW	Rule Curve =				81.24	ft.
Water Level of Kaptai Lake at 06:00 AM				Yesterday =		76.30	ft.	Today =		76.20	ft.						
Sl. No.	Name of Power Station	Nos. of Unit X Capacity (MW)	Installed Capacity (MW)	Derated/ Present Capacity (MW)	05.05.21 (Yesterday)		06.05.21 (Today)		05.05.21 (Yesterday)		06.05.21 (Today)		05.05.21 (Yesterday)		06.05.21 (Today)		Status of Machines under shut-down/ Maintenance
					Actual Peak Generation (MW)		Probable Peak Generation (MW)		Gen. shortfall for :		Machines shut down		Description/ Remarks				
					Day	Evening	Day	Evening	Gas/water/Coal limitation MW	Machines shut down (MW)							
(A) Plants in operation:																	
1	a) Ghorasal Repowered CCPP Unit-3	Gas (PDB)	1 x 210	210	170	0	0	0	0					170		Under Repowering	
	b) Ghorasal Repowered CCPP Unit-4	Gas (PDB)	1 x 210	210	180	0	0	0	0					180		Under Repowering	
	c) Ghorasal TPP Unit-5	Gas (PDB)	1 x 210	210	190	180	180	180	180								
2	Ghorasal 365 MW CCPP Unit-7	Gas (PDB)	1x 254+1x 126	365	365	0	0	0	0					365		Under maint.	
3	Ghorashal 108MW PP (Regent)	Gas (IPP)	34x3.35	108	108	102	98	100	100								
4	Tongi 80 MW GTPP	Gas (PDB)	1 x 105	105	105	0	0	0	0					105		CB Problem	
5	Hanipur GTPP	Gas (PDB)	1 x 32	32	20	0	0	0	0					20		Under Maint.	
6	Hanipur 360MW CCPP(HPL)	Gas (IPP)	1x235+1x125	360	360	280	276	300	300	84						Gas Shortage	
7	Meghnaghat 450 MW CCPP(MPL)	Gas (IPP)	2x140+1x170	450	450	270	280	300	300	170						Gas Shortage	
8	210 MW Siddhirganj TPP	Gas (PDB)	1 x 210	210	115	0	0	0	0					115		Under Overhauling	
9	Hanipur 412 MW CCPP	Gas (EGCB)	1x273+1x139	412	412	0	0	0	0					412		Dirt in gas	
10	Siddhirganj 2120 MW GTPP	Gas (EGCB)	2 x 105	210	210	150	115	130	150	95						Gas Shortage	
11	Siddhirganj 335 MW CCPP	Gas (EGCB)	1 x 217+1x118	335	335	216	170	200	220							ST under maint.	
12	Siddhirganj 100 PPI(Dutch Bangla)	HFO (QRPP)	12x8.9	100	100	15	100	100	100								
13	Meghnaghat CCPP(Summit)	GAS (IPP)	2x110+1x110	305	305	265	250	300	300					55		dirt in gas	
14	Meghnaghat 100 MW(IEI)	HFO (QRPP)	12x8.9	100	100	16	91	100	100								
15	Madanganj-55 MW PP(Summit)	HFO (IPP)	5x17.08+1x11.3	55	55	30	55	55	55								
16	Keraniganj 100 MW PP (Powerpac)	HFO (QRPP)	8x13.45	100	100	0	0	100	100								
17	Gagnagar 102 MW PP (Digital Power)	HFO (IPP)	12x8.924	102	102	24	93	102	102								
18	Narshingdi 22 MW PP (Doreen)	Gas (SIIP, REB)	8x2.90	22	22	0	22	22	22								
19	Summit Power,(Madhabdi+Ashulia)	Gas (SIIP, REB)	6x8.57+1x8.73	80	80	53	54	53	53								
20	Masna 33 MW PP(Summit)	Gas (SIIP, REB)	4x8.73	33	33	33	33	33	33								
21	Rupganj 33 MW PP(Summit)	Gas (SIIP, REB)	4x8.73	33	33	25	25	33	33								
22	Gazipur 52 MW PP	HFO (RPCL)	6x8.90	52	52	0	25	52	52								
23	Gazipur 100 MW PP	HFO (RPCL)	6x18.415	105	105	90	105	105	105								
24	Kodda 150MW PP	HFO (BPDB-RPCL)	9x17.06	149	149	0	32	150	150								
25	Katpott 52 MW PP (Sinha)	HFO (IPP)	7x7.90	51	51	0	0	0	0								
26	Kamalaghat 54 MW PP (Barco Energy)	HFO (IPP)	3x18.69	54	54	35	35	35	35								
27	Kodda 300 MW PP Unit-2 (Summit)	HFO (IPP)	18x17.076	300	300	2	205	250	250								
28	Kodda 149 MW PP Unit-1 (Summit)	HFO (IPP)	8x18.415+1x8.97	149	149	149	149	149	149								
29	Keraniganj 300 MW PP (APR)	HSD (IPP)	256x1.4	300	300	0	0	100	300								
30	Branhanganj 100 MW PP (Aggreko)	HSD (IPP)	23x0.85+91x.959	100	100	0	0	0	100	100							
31	Aurahi 100MW PP (Aggreko)	HSD (IPP)	23x0.85+91x.959	100	100	0	0	0	0	100							
32	Nababganj 55 MW PP (Southern power)	HFO (IPP)	3x19.3	55	55	55	55	55	55								
33	Manikganj 55 MW PP (Northern)	HFO (IPP)	3x19.3	55	55	0	55	55	55								
34	Bosila 108MW PP(CLC)	HFO (IPP)	12x8.775+1x3.5	108	108	0	0	0	0								
35	Meghnaghat 104 MW PP (OPSL)	HFO (IPP)	6x18.5	104	104	17	90	90	90								
36	Manikganj 162MW PP(MPGL)	HFO (IPP)	9x18	162	162	81	162	162	162								
37	Manikganj 35MW Solar PP (Inspect)	Solar (IPP)	1x35	35	35	33	0	30	0								
Dhaka Zone Total				6026	5829	2121	2755	3421	3731	816	1120						
38	Kamaphuli Hydro PP Unit-1,2,3,4, 5	Hydro (PDB)	2x40, 3x50	230	230	22	23	23	23	207						Low Water Level	
39	a) Chattogram TPP-1	Gas (PDB)	1 x 210	210	180	90	90	90	90								
	b) Chattogram TPP-2	Gas (PDB)	1 x 210	210	180	0	0	0	0	180						Under maint.	
40	Kaptai 7 MW Solar PP	Solar (PDB)	7	7	5	0	5	0	0								
41	Raccan 25 MW PP	HFO (RPCL)	3x8.9	25	25	8	17	17	17								
42	Teknaf 20MW PP (Solaritech)	Solar (IPP)	1x20	20	20	0	20	0	20	0							
43	Patenga 50MW PP (Baraka)	HFO (IPP)	8x6.89	50	50	19	19	43	43								
44	Sikalbaha 105 MW PP (Baraka Sika)	HFO (IPP)	6x18.415	105	105	70	90	90	90								
45	Shikalbaha Peaking GT	Gas (PDB)	1 x 150	150	150	140	140	140	140								
46	Sikalbaha 225 MW CCPP	Gas (PDB)	1 x 150+1 x 75	225	225	204	204	225	225								
47	Anwara 300 MW PP (United)	HFO (IPP)	17x17.076+3x8.04	300	300	0	0	300	300								
48	Juidah 100 MW Unit-1 (Acom)	HFO (QRPP)	8x13.45	100	100	0	0	0	0								
49	Juidah 100 MW PP Unit-3 (Acom)	HFO (IPP)	8x13.45	100	100	100	100	100	100								
50	Dohazari-Kalaish 100 MW Peaking	HFO (PDB)	6x17.0	102	102	0	68	68	68								
51	Hathazari 100 MW peaking PP	HFO (PDB)	11x8.9	98	98	0	0	0	0								
52	Barabkunda 22 MW PP (Regent)	Gas (SIIP, PDB)	8x2.90	22	22	21	21	22	22								
*	Malancha, Ctg.EPZ (United)	Gas	5x8.73+3x9.34			6	34	10	20								
53	Chattogram 108 MW PP (ECPV)	HFO (IPP)	16x7.00	108	108	0	23	90	90								
54	Sikalbaha 54 MW Power Plant(Jodiad Power)	HFO (IPP)	3x18.55+1x3.6	54	54	42	54	54	54								
55	Kamaphuli Power Ltd.	HFO (IPP)	6x18.41+1x6.4	110	110	0	17	110	110								
56	Juidah unit-2 (Acom)	HFO (IPP)	8x13.6	100	100	60	100	100	100								
57	Chattogram 116 MW PP (Anlima Energy)	HFO (IPP)	6x21.06	116	116	22	116	116	116								
Chattogram Zone Total				2442	2382	829	1116	1623	1608	207	180						
58	a) Ashuganj TPP Unit-3	Gas (APSCL)	1 x 150	150	135	0	0	0	0	135						Gas Shortage	
	b) Ashuganj TPP Unit-4	Gas (APSCL)	1 x 150	150	129	0	0	0	0	129						Gas Shortage	
	c) Ashuganj TPP Unit-5	Gas (APSCL)	1 x 150	150	134	80	80	100	100	54						Gas Shortage	
59	Ashuganj 50 MW PP	Gas (APSCL)	14x3.968	53	45	26	26	26	26								
60	Ashuganj 225 MW CCPP	Gas (APSCL)	1x142+175	221	221	187	182	220	220								
61	Ashuganj 450 MW CCPP(South)	Gas (APSCL)	1x360	360	360	310	295	330	330								
62	Ashuganj 450 MW CCPP(North)	Gas (APSCL)	1x361	360	360	310	310	330	330								
63	Ashuganj 55 MW PP (Precision)	Gas (RPP)	1574	55	55	30	56	55	55								
64	Ashuganj 195MW PP (APSCL-United)	Gas (IPP)	20'9.73+1'16	195	195	8	26	26	26	169						Gas shortage	
65	Ashuganj 51 MW PP (Midland)	Gas (IPP)	6x9.34	51	51	51	51	51	51								
66	Ashuganj 150MW PP (Midland)	HFO (IPP)	23x7.015	150	150	36	150	100	150								
67	Titas 50 MW Peaking PP	HFO (PDB)	6x8.92	52	52	0	0	0	50								
68	Chandpur 150 MW CCPP	Gas (PDB)	1X106+1x57	163	163	90	93	95	95	70						Gas Shortage	
69	Chandpur 200MW (Desh energy)	HFO (IPP)	12x18.415	200	200	102	144	160	160								
70	Feni 22MW PP (Doreen)	Gas (SIIP, PDB)	8x2.90	22	22	0	21	22	22								
71	Feni 11 MW PP (Doreen)	Gas (SIIP, REB)	4x2.90	11	11	8	8	11	11								
72	Jangalia 33MW PP (Summit)	Gas (SIIP, PDB)	4x8.73	33	33	33	33	33	33								
73	Jangalia 52 MW PP (Lakdanavi)	HFO (IPP)	6x8.92	52	52	8	8	52	52								
74	Cumilla 25 MW PP (Summit)	Gas (SIIP, REB)	3x3.67+2x6.97	25	25	18	20	20	20								
75	Daukand 200 MW PP (B.Trac)	HSD (IPP)	98x1.4+6x1.575+1x1.256	200	200	0	0	100	200								
76	Feni 114 MW Power Plant(Lakdanavi)	HFO (IPP)	7'18.415+1'9.78	114	114	0	0	114	114								
77	Chowmuhani 113 MW	HFO (IPP)	12'9.78+2'3.1	113	113	74	113	113	113								
78	Bhairab 54 MW PP	HFO (IPP)	3x18.2	54	54	17	35	36	36								
**	Import (Tripura)	India		160	160	132	162	156	178								
Cumilla Zone Total				3094	3034	1520	1813	2150	2372	557	0						
79	RPCL 210MW CCPP	Gas (IPP)	4x35+1x70	210	202	153	151	160	160	51						Gas Shortage	
80	Tangail 22 MW PP (Doreen)	Gas (SIIP, PDB)	8x2.90	22	22	14	19	19	19								
81	Jamalpur 95 MW PP(Powerpac)	HFO (IPP)	12														

Sl. No.	Name of Power Station	Nos. of Unit X Capacity (MW)	Installed Capacity (MW)	Derated/ Present Capacity (MW)	05.05.21 (Yesterday)		06.05.21 (Today)		05.05.21 (Yesterday)		Status of Machines under shut-down/ Maintenance	
					Actual Peak Generation (MW)		Probable Peak Generation (MW)		Gen. shortfall for :		Description/ Remarks	Probable start-up date
					Day	Evening	Day	Evening	Gas/Water/Coal limitation MW	Machines shut down (MW)		
87	Fenchuganj CAPP Phase-1	Gas (PDB)	2x32+1x33	97	70	44	44	43	43	26	Under maint.	
88	Fenchuganj CAPP Phase-2	Gas (PDB)	2x35+1x35	104	90	42	42	42	42	48	Under maint.	
89	Fenchuganj 51 MW PP (Barakatulla)	Gas (RPP)	19x2.90	51	51	11	53	51	51			
90	Kushara 163 MW CAPP (KP)	Gas (IPP)	1x109+1x54	163	163	130	130	163	163			
91	Hobiganj 11MW PP Confidence-E	Gas (SIIP, REB)	4x2.90	11	11	0	11	11	11			
92	Shahjibazar GTPP Unit- 8 & 9	Gas (PDB)	2x35	70	66	31	32	32	32			
93	Shahjibazar 330 MW CAPP	Gas (PDB)	2x110+1x110	330	330	162	272	275	275			
94	Shahjibazar 86MW PP (Shahjibazar)	Gas (RPP)	32x2.90	86	86	75	75	76	76			
95	Sylhet 225 MW CAPP	Gas (PDB)	1x142+1x89	231	231	184	223	225	225			
96	Sylhet 20 MW GTPP	Gas (PDB)	1 x 20	20	20	17	17	18	18			
97	Sylhet 10MW PP (Desh)	Gas (RPP)	6x1.95	10	10	7	7	10	10			
98	Shahjahanulla 25 MW PP	Gas (CIPP, REB)	3x9.34	25	25	0	16	16	16			
99	Bibiana-II 341 MW CAPP (Summit)	Gas (IPP)	1x222+1x119	341	341	310	280	341	341			
100	Bibiana-III 400 MW CAPP	Gas (PDB)	1x285+1x115	400	400	373	367	400	400			
101	Bibiana South 383 MW CAPP	Gas (PDB)	1x252+1x131	383	383	371	370	400	400			
102	Shahjibazar 100 MW GTPP	Gas (PDB)	1x100	100	100	0	0	0	0			
Sylhet Zone Total					2422	2377	1790	1939	2103	2105	0	74
103	Bheramara GTPP Unit- 3	HSD (PDB)	1 x 20	20	16	0	0	0	16			
104	Bheramara 410 MW CAPP	Gas (NWP/GCL)	1 x 278+1 x 132	410	410	360	350	320	320	60	Gas Shortage	
105	Fardipur 50 MW Peaking PP	HFO (PDB)	8x6.98	54	54	4	21	20	20			
106	Gopalgarj 100 MW Peaking PP	HFO (PDB)	16x6.98	109	109	0	0	60	60			
107	Khulna 225 MW CAPP	HSD (NWP/GCL)	1 x 150+1x75	230	230	0	0	0	220			
108	Khulna 115 PP MW (KPCL-2)	HFO (QRPP)	7x17	115	115	83	99	99	99			
109	Noapara 100 MW PP (Bangla Trac)	HSD (IPP)	70x1.4+7x1.5315	100	100	0	0	50	100			
110	Noapara 40 MW PP (Khanjahan Ali)	HFO (QRPP)	5x8.5	40	40	0	0	32	33			
111	Rupsha 105 MW PP (Orion rupsha)	HFO (IPP)	6x18.445	105	105	0	53	92	92			
112	Madhumati 100 MW PP	HFO (NWP/GCL)	6x18.415	105	105	0	50	100	100			
**	Bheramara (HVDC)	India		1000	1000	830	829	852	852			
Khulna Zone Total					2288	2284	1277	1402	1625	1912	60	0
113	Barisal 110 MW PP (Summit)	HFO (IPP)	7 x 17.076	110	110	0	96	110	110			
114	Bhola 33 MW PP (Venture)	Gas (RPP)	1x34.50	33	33	23	34	35	35			
115	Bhola 225 MW CAPP	Gas (PDB)	2x63+1x68	194	194	64	60	65	65	134	GT-2 & STG Under maint.	
116	Bhola 95 MW PP (Aggreko)	Gas (QRPP)	1.1x96	95	95	94	100	95	95			
117	Payra 1320 MW TPP	Coal (BCPCL)	2x622	1244	1244	430	280	622	622			
118	Potukhali 150MW PP (UPPL)	HFO (IPP)	8x18.415+1x9.78	150	150	0	0	80	80			
Barisal Zone Total					1826	1826	611	570	1007	1007	0	134
119	a) Baghabari 71 MW GTPP	Gas (PDB)	1 x 71	71	71	0	0	0	0	71	Gas Shortage	
	b) Baghabari 100 MW GTPP	Gas (PDB)	1 x 100	100	100	0	0	0	0	100	Gas Shortage	
120	Baghabari 50 MW Peaking PP	HFO (PDB)	6x8.9	52	52	0	50	50	50			
121	Baghabari 200 MW PP (Paramount)	HSD (IPP)	135x1.6	200	200	0	0	200	200			
122	Bera 70 MW Peaking PP	HFO (PDB)	9x8.29	71	71	0	34	40	40			
123	Amnura 50 MW PP (Sinha)	HFO (QRPP)	7x7.79	50	50	0	24	42	42			
124	Chapainawabganj 100 MW Peaking	HFO (PDB)	12x8.924	104	104	0	0	100	100			
125	Katakhal 50 MW Peaking PP	HFO (PDB)	6x8.7	50	50	0	30	22	22			
126	Katakhal 50 MW PP (Northern)	HFO (QRPP)	6x8.9	50	50	0	0	43	43			
127	Santahar 50 MW Peaking PP	HFO (PDB)	6x8.7	50	50	0	39	0	32			
128	Sirajganj 225MW CAPP Unit-1	Gas (NWP/GCL)	1x150+1x75	210	210	131	105	144	144	45	Gas Shortage	
129	Sirajganj 225MW CAPP Unit-2	Gas (NWP/GCL)	1x150+1x75	220	220	199	158	200	200	62	Gas Shortage	
130	Sirajganj 225MW CAPP Unit-3	Gas (NWP/GCL)	1x141+1x79	220	220	198	150	200	200	70	Gas Shortage	
131	Sirajganj 400 MW CAPP Unit-4	Gas (IPP)	1x282+1x132	414	414	419	377	400	400			
132	Bogra 22 MW PP (GBB)	Gas (RPP)	6x4.0	22	22	21	22	22	22			
133	Ullapara 11 MW PP (Summit)	Gas (SIIP, REB)	4x2.90	11	11	11	11	11	11			
134	Natore 52 MW PP (Rajlanka)	HFO (IPP)	6x8.92	52	52	18	52	52	52			
135	Bagura 113 MW PP (Confidence) Unit-1	HFO (IPP)	6*18.55	113	113	0	70	113	113			
136	Bagura 113 MW PP (Confidence) Unit-2	HFO (IPP)	6x18.55	113	113	0	113	113	113			
Rajshahi Zone Total					2173	2173	997	1235	1752	1784	348	0
137	a) Barapukuria TPP Unit-1	Coal (PDB)	1 x 125	125	85	75	73	75	75	12	Coal Shortage	
	b) Barapukuria TPP Unit-2	Coal (PDB)	1 x 125	125	85	0	0	0	0	85	Coal Shortage	
138	Barapukuria 275 MW TPP Unit-3	Coal (PDB)	1 x 274	274	274	150	150	150	150	124	Coal Shortage	
139	Rangpur 20 MW GTPP	HSD (PDB)	1 x 20	20	20	0	0	0	10			
140	Rangpur 113 MW PP (Confidence)	HFO (IPP)	7*16x 2*3	113	113	35	113	113	113			
141	Saidpur 20 MW GTPP	HSD (PDB)	1 x 20	20	20	0	0	0	10			
142	Majpara, Tatula 8 MW Solar PP (Sympa Po)	Solar (IPP)	1 x 8	8	8	6	0	8	0			
Rangpur Zone Total					685	605	266	336	346	358	221	0
Sub-total: Plants in operation					21673	21219	9733.0	11620	14669	15467	2260	1508
Available Power at Sub-station end excluding PIS auxiliary use and Transmission loss							9315	11121	14039	14803		
(B) Plants under long term maintenance/ contract expired												
143	Ghorashal 78.5 MW PP(MAX)	Gas (QRPP)	2x40	78	0	0	0	0	0		Contract Expired on 08/01/2021	
144	Madanganj 102 PP(Summit)	HFO (QRPP)	6x17	102	0	0	0	0	0			
145	Fenchuganj 44MW (Energyprima)	Gas (RPP)	12x3.3+5x2.0	44	0	0	0	0	0		Contract Expired on 14/02/2021	
146	Sylhet 50MW PP (EPL)	Gas (RPP)	27x2.0	50	0	0	0	0	0		Contract Expired on 04/01/2020	
147	Bogura 20 MW PP (Energyprima)	Gas (RPP)	5x3.3+5x2.0	20	0	0	0	0	0		Contract Expired on 12/11/2020	
Sub-Total: Plants under long term maintenance/ contract expired					294	0	0	0	0			
Gross Total					21967	21219	9733	11620	14669	15467	2260	1508
(C) Actual data of 05.05.21 (Yesterday) Wednesday :												
01.	Max. Demand at eve. peak (Generation end)	:	11620.00	MW, at =	21:00 hrs	12.	Zone wise Demand and Load-shed at Evening Peak (Sub-station end) :					
02.	Max. Demand at eve. peak (Sub-station end)	:	11121.00	MW, at =	21:00 hrs	Zone	Demand MW	Supply MW	Load Shed MW	Zone	Demand MW	Supply MW
03.	Highest Generation (Generation end)	:	11620.00	MW, at =	21:00 hrs	Dhaka	4161	4161	0	Mymensingh	958	958
04.	Minimum Generation (Generation end)	:	7825.00	MW, at =	6:00 hrs	Chattogram	1312	1312	0	Sylhet	486	486
05.	Day-peak Generation (Generation end)	:	9733.00	MW, at =	12:00 hrs	Khulna	1112	1112	0	Barisal	367	367
06.	Evening-peak Generation (Generation end)	:	11620.00	MW, at =	21:00 hrs	Rajshahi	904	904	0	Rangpur	647	647
07.	Evening Peak Load-shed (Sub-station end)	:	0.00	MW, at =	21:00 hrs	Cumilla	1174	1174	0			
08.	Minimum Generation Forecast up to 8:00 hrs.	:	8254.00	MW, at =	5:00 hrs					Total	11121	11121
09.	Generation shortfall at evening peak due to :	:										0
	a) Gas limitation	:	1832	MW		13.	Fuel cost :	(a) Gas = 165772840 Taka	(c) Coal = 75293938 Taka			
	d) Coal supply Limitation	:	221	MW			(b) Oil = 340562233 Taka	Total = 581629011 Taka				
	b) Low water level in Kaptai lake	:	207	MW								
	c) Plants under shut down/ maintenance	:	1508	MW		14.	Maximum Temperature in Dhaka was : 34.5° C					
10.	Total Energy (Generation + India Import)	:	240.52	MKWh		15.	Export through East-West interconnections :					
	By Gas = 151.359 MKWh			By Oil = 49.238 MKWh			At evening peak-hour	:	280	MW, at	21:00 hrs	
	By Coal = 15.636 MKWh			By Hydro = 0.482 MKWh			Maximum	:	60	MW, at	19:00 hrs	
	By Solar = 0.658 MKWh						Energy	:	0.0825	MKWh		
11.	Total Gas Supplied	:	1259.47	MMCFD								
(D) Forecast of 06.05.21 (Today) Thursday :												
01.	Maximum Demand	:	12200	MW	(Generation end)	04.	Maximum Load-shed : 0 MW At evening peak (Sub-station end)					
02.	Maximum Generation	:	15467	MW	(Generation end)	05.	Total Generation : 252.53 MKWh					
03.	Maximum Shortage	:	-3267	MW	(Generation end)	06.	Probable Max. Temperature in Dhaka : 33.6° C					

#Remarks: Highest Generation 13792 MW on 27-04-2021 at 20:00
 * Captive Power ** Imported Power

(Fazoul Islam Shaker)
 Deputy Secretary, Generation