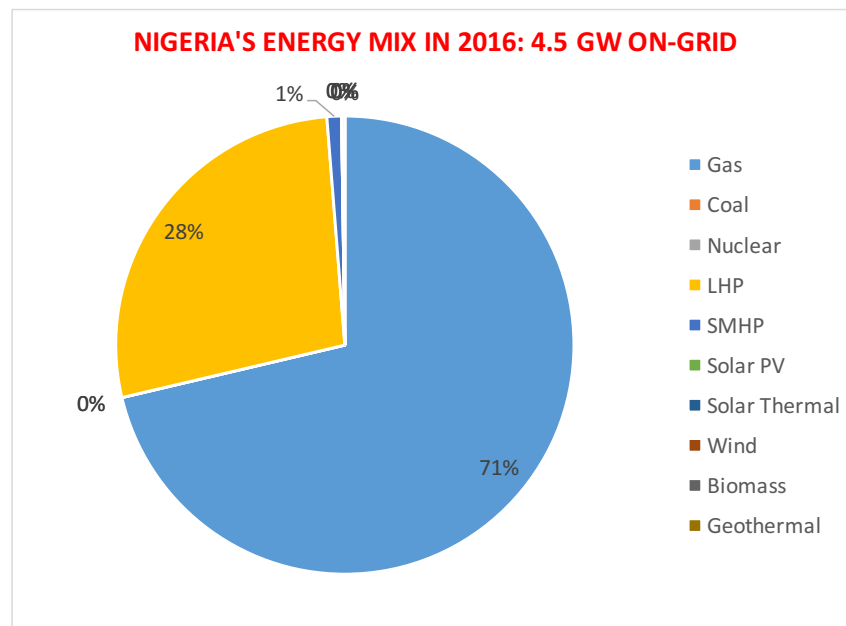


NIGERIAN SUSTAINABLE ENERGY FOR ALL (SE4ALL) ACTION AGENDA

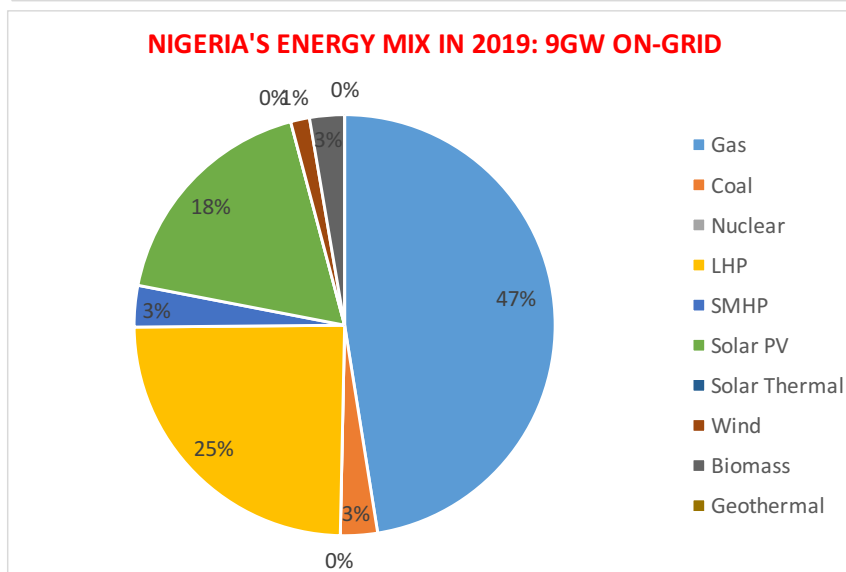
ELECTRICITY VISION: 30-30-30																	
EOY	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
ON-GRID CAPACITY - MWH/H																	
Fossil Fuel (FF)																	
Gas	2,800	3,076	3,121	3,913	4,172	4,259	4,524	4,867	5,286	5,889	6,684	7,581	8,646	9,714	10,957	12,429	13,000
Coal	0	0	0	0	0	255	424	628	871	1,060	1,203	1,408	1,582	1,958	2,388	2,846	3,200
Nuclear	0	0	0	0	0	0	0	0	0	0	0	1000	1000	1000	1500	1500	2000
Sub Total FF	2,800	3,076	3,121	3,913	4,172	4,514	4,948	5,495	6,157	6,949	7,887	9,989	11,228	12,672	14,845	16,775	18,200
Renewables (RE)																	
LHP	916	1,097	1,200	1,650	1,920	2,200	2,540	2,800	3,100	3,400	3,700	4,000	4,200	4,500	4,600	4,700	4,700
SMHP	0	15	45	125	205	285	265	325	405	485	565	625	705	785	865	945	1,200
Solar PV	0	0	100	500	1,200	1,600	2,000	2,300	2,600	2,900	3,200	3,500	3,840	4,180	4,520	4,860	5,000
Solar Thermal	0	0	0	0	0	0	50	200	300	400	500	600	700	800	900	950	1,000
Wind (Max)	0	0	10	50	90	130	170	210	250	290	330	370	450	530	610	750	800
Biomass	0	0	0	50	180	240	300	360	420	480	540	600	720	840	960	1,080	1,100
Geothermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub Total RE plus LHP	916	1,112	1,355	2,375	3,595	4,455	5,325	6,195	7,075	7,955	8,835	9,695	10,615	11,635	12,455	13,285	13,800
Sub Total RE less LHP	0	15	155	725	1,675	2,255	2,785	3,395	3,975	4,555	5,135	5,695	6,415	7,135	7,855	8,585	9,100
% RE plus LHP	25	27	30	38	46	50	52	53	53	53	53	49	49	48	46	44	43
% RE less LHP	0	0	3	12	22	25	27	29	30	31	31	29	29	29	29	29	28
TOTAL ON-GRID (FF+RE) - MWH/H	3,716	4,188	4,476	6,288	7,767	8,969	10,273	11,690	13,232	14,904	16,722	19,684	21,843	24,307	27,300	30,060	32,000
OFF-GRID CAPACITY - MWH/H																	
Mini-Grid	1	1	5	50	125	150	180	270	405	608	911	1,367	2,050	3,075	3,691	4,429	5,314
SHS + Street Lights	10	30	50	100	150	300	360	540	648	778	933	1,120	1,344	1,612	1,935	2,322	2,786
TOTAL OFF-GRID - MWH/H	11	31	55	150	275	450	540	810	1,053	1,385	1,844	2,487	3,394	4,688	5,625	6,751	8,101
SELF GENERATION (CAPTIVE)	13,800	13,800	12,500	12,000	11,500	11,000	10,500	10,000	9,500	9,000	8,500	8,000	7,500	7,000	6,500	6,000	5,000
GRAND TOTAL - MWH/H	17,527	18,019	17,031	18,438	19,542	20,419	21,313	22,500	23,785	25,290	27,067	30,170	32,737	35,995	39,426	42,811	45,101
30GW BY 2030 WITH 30% RENEWABLE ENERGY																	

NIGERIAN SUSTAINABLE ENERGY FOR ALL (SE4ALL) ACTION AGENDA

	2016
Gas	3,121
Coal	0
Nuclear	0
LHP	1,200
SMHP	45
Solar PV	0
Solar Thermal	0
Wind	10
Biomass	0
Geothermal	0



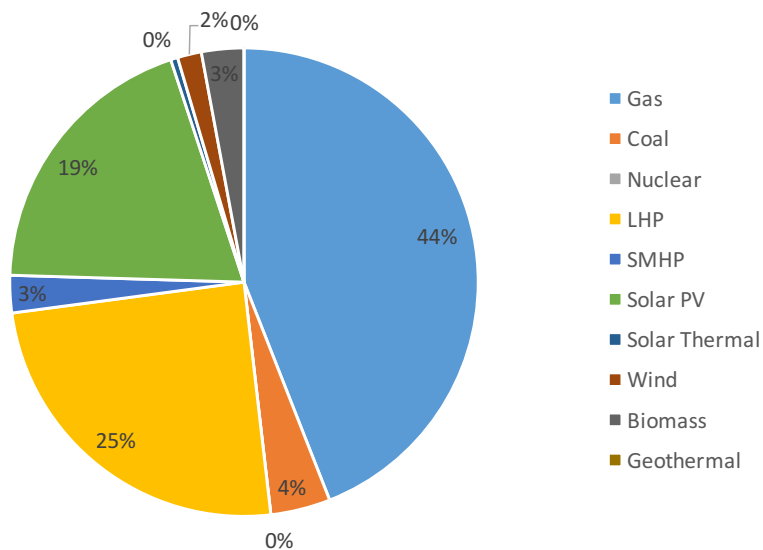
	2019
Gas	4,259
Coal	255
Nuclear	0
LHP	2,200
SMHP	285
Solar PV	1,600
Solar Thermal	0
Wind	130
Biomass	240
Geothermal	0



NIGERIAN SUSTAINABLE ENERGY FOR ALL (SE4ALL) ACTION AGENDA

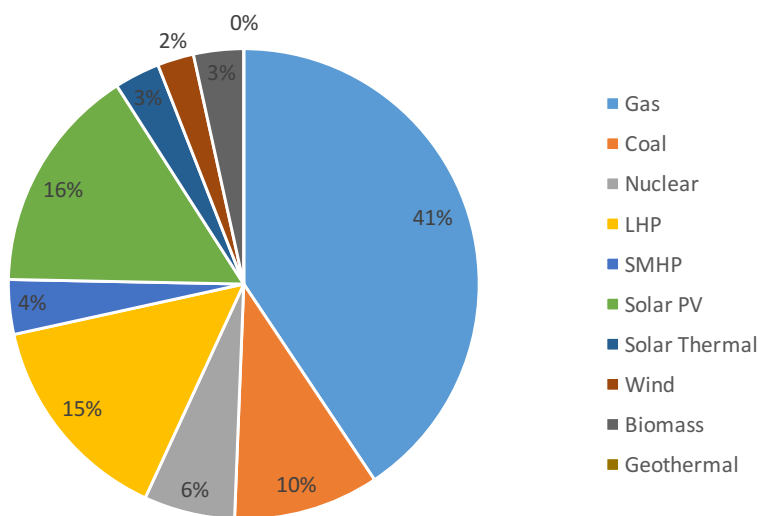
	2020
Gas	4,524
Coal	424
Nuclear	0
LHP	2,540
SMHP	265
Solar PV	2,000
Solar Thermal	50
Wind	170
Biomass	300
Geothermal	0

NIGERIA'S ENERGY MIX IN 2020: 10GW ON-GRID

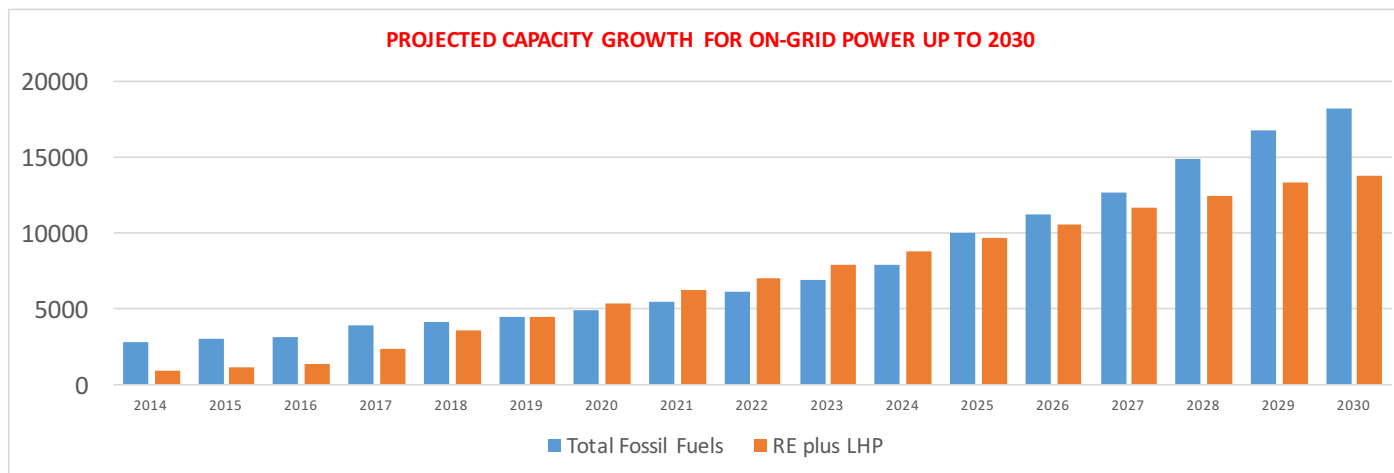


	2030
Gas	13,000
Coal	3,200
Nuclear	2,000
LHP	4,700
SMHP	1,200
Solar PV	5,000
Solar Thermal	1,000
Wind	800
Biomass	1,100
Geothermal	0

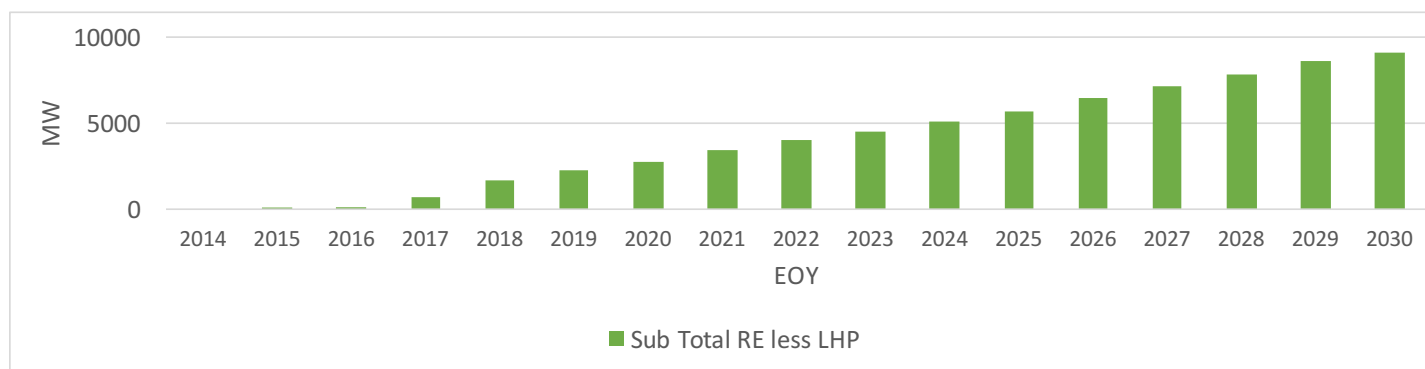
NIGERIA'S ENERGY MIX IN 2030 : 30GW ON-GRID



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Total Fossil Fuels	2800	3076.28365	3121.04434	3913.22453	4172.32132	4514.04183	4948.30091	5494.61108	6157.00162	6949.40219	7887.41399	9988.51036	11228.0772	12672.2174	14845.4797	16775.3586	18200
RE plus LHP	916	1112	1355	2375	3595	4455	5325	6195	7075	7955	8835	9695	10615	11635	12455	13285	13800



	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Sub Total RE	0	15	155	725	1675	2255	2785	3395	3975	4555	5135	5695	6415	7135	7855	8585	9100

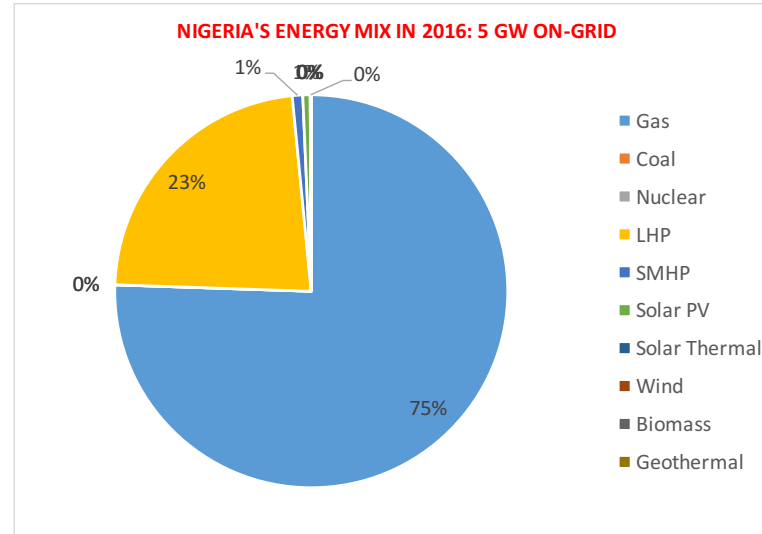


NIGERIAN SUSTAINABLE ENERGY FOR ALL (SE4ALL) ACTION AGENDA

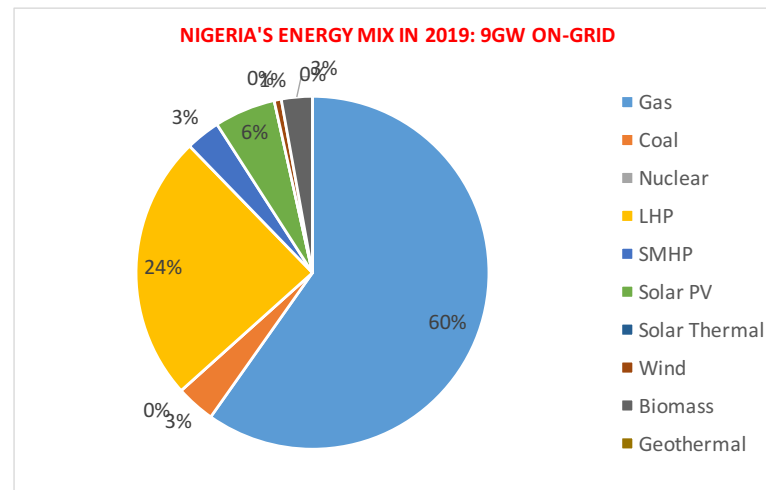
ELECTRICITY VISION: 30-30-30																	
EOY	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
ON-GRID CAPACITY - GWH																	
Fossil Fuel (FF)																	
Gas	18,386	20,198	20,494	25,696	27,397	27,967	29,708	31,956	34,710	38,672	43,893	49,777	56,774	63,787	71,951	81,616	85,363
Coal	0	0	0	0	0	1,674	2,784	4,124	5,719	6,960	7,899	9,245	10,388	12,857	15,681	18,688	21,203
Nuclear	0	0	0	0	0	0	0	0	0	0	0	7,776	7,776	7,776	11,664	11,664	15,552
Sub Total FF	18,386	20,198	20,494	25,696	27,397	29,641	32,493	36,080	40,429	45,633	51,792	66,798	74,938	84,420	99,296	111,968	122,118
Renewables (RE)																	
LHP	4,749	5,687	6,221	8,554	9,953	11,405	13,167	14,515	16,070	17,626	19,181	20,736	21,773	23,328	23,846	24,365	24,365
SMHP	0	78	233	648	1,063	1,477	1,374	1,685	2,100	2,514	2,929	3,240	3,655	4,069	4,484	4,899	6,221
Solar PV	0	0	164	821	1,970	2,627	3,283	3,776	4,268	4,761	5,253	5,746	6,304	6,862	7,420	7,978	8,208
Solar Thermal	0	0	0	0	0	0	151	605	907	1,210	43,272	1,814	2,117	2,419	2,722	2,873	3,024
Wind	0	0	23	117	210	303	397	490	583	677	770	863	1,050	1,236	1,423	1,750	1,866
Biomass	0	0	0	276	995	1,327	1,659	1,991	2,322	2,654	2,986	3,318	3,981	4,645	5,308	5,972	6,083
Geothermal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sub Total RE plus LHP	4,749	5,765	6,642	10,416	14,191	17,139	20,031	23,061	26,251	29,441	74,391	35,717	38,879	42,560	45,204	47,836	49,766
Sub Total RE less LHP	0	78	421	1,862	4,238	5,734	6,864	8,546	10,181	11,815	55,210	14,981	17,106	19,232	21,357	23,471	25,402
% RE plus LHP	21	22	24	29	34	37	38	39	39	39	59	35	34	34	31	30	29
% RE less LHP	0	0	2	5	10	12	13	14	15	16	44	15	15	15	15	15	15
TOTAL ON-GRID (FF+RE) - GWH	23,134	25,963	27,135	36,111	41,588	46,780	52,523	59,141	66,680	75,073	126,183	102,515	113,817	126,980	144,499	159,804	171,885
OFF-GRID CAPACITY - GWH																	
Mini-Grid	1	2	9	864	2,160	2,592	3,110	4,666	6,998	10,498	15,746	23,620	35,429	53,144	63,773	76,528	91,833
SHS + Street Lights	17	52	86	173	259	518	622	933	1,120	1,344	1,612	1,935	2,322	2,786	3,344	4,012	4,815
TOTAL OFF-GRID - MW	18	54	95	1,037	2,419	3,110	3,732	5,599	8,118	11,841	17,359	25,555	37,751	55,930	67,116	80,540	96,648
SELF GENERATION (CAPTIVE) - GWH	90,616	90,616	82,080	78,797	75,514	72,230	68,947	65,664	62,381	59,098	55,814	52,531	49,248	45,965	42,682	39,398	32,832
GRAND TOTAL - GWH	113,769	116,633	109,310	115,945	119,521	122,121	125,203	130,404	137,179	146,012	199,356	180,601	200,816	228,875	254,297	279,742	301,364
Real Per Capita (kWH)	136	145	143	191	221	245	269	302	341	386	622	541	625	736	831	920	1,003
Per Capita (kWH) including Self Generation	669	648	574	597	601	599	599	609	625	649	864	763	828	921	998	1,071	1,126
Population Growth (Million) at 2% Ave Rate	170.00	180.00	190.34	194.15	199.00	203.98	209.07	214.30	219.66	225.15	230.78	236.55	242.46	248.52	254.74	261.11	267.63
30GW BY 2030 WITH 30% RENEWABLE ENERGY																	

NIGERIAN SUSTAINABLE ENERGY FOR ALL (SE4ALL) ACTION AGENDA

	2016
Gas	20,494
Coal	0
Nuclear	0
LHP	6,221
SMHP	233
Solar PV	164
Solar Thermal	0
Wind	23
Biomass	0
Geothermal	0

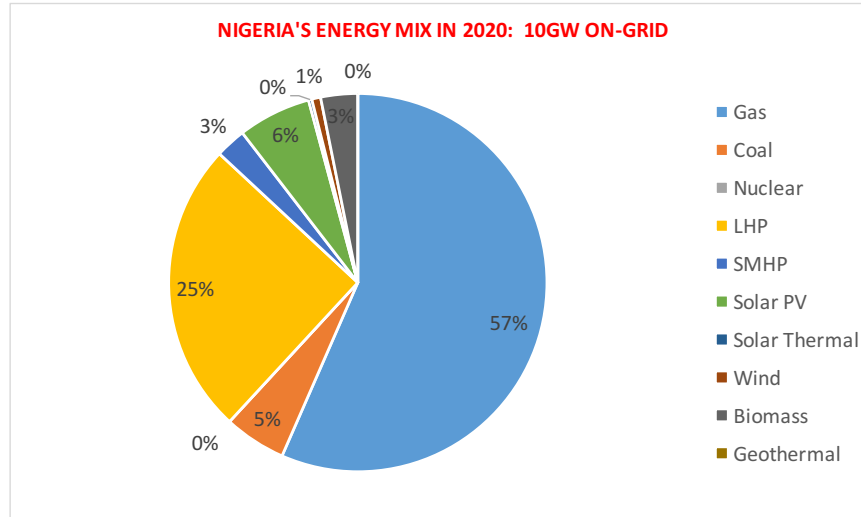


	2019
Gas	27,967
Coal	1,674
Nuclear	0
LHP	11,405
SMHP	1,477
Solar PV	2,627
Solar Thermal	0
Wind	303
Biomass	1,327
Geothermal	0

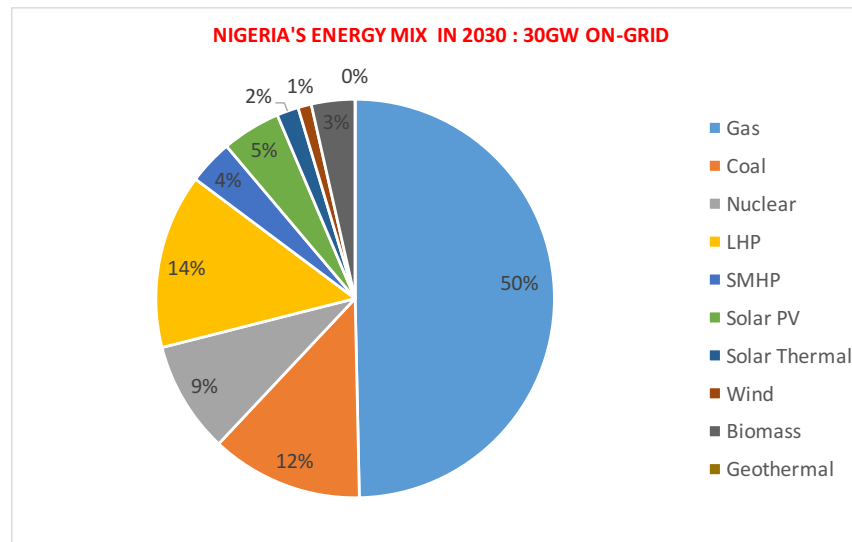


NIGERIAN SUSTAINABLE ENERGY FOR ALL (SE4ALL) ACTION AGENDA

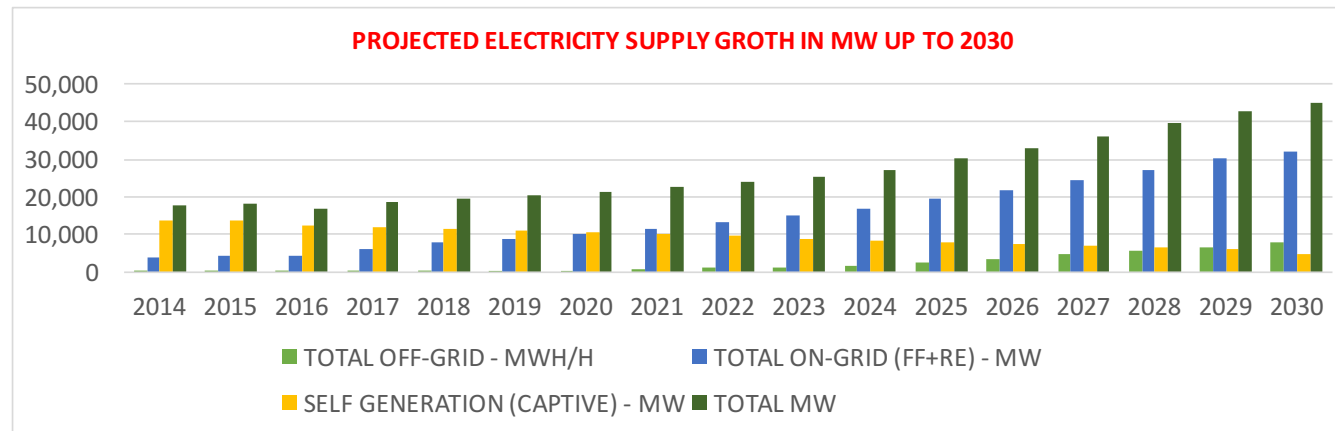
	2020
Gas	29,708
Coal	2,784
Nuclear	0
LHP	13,167
SMHP	1,374
Solar PV	3,283
Solar Thermal	151
Wind	397
Biomass	1,659
Geothermal	0



	2030
Gas	85,363
Coal	21,203
Nuclear	15,552
LHP	24,365
SMHP	6,221
Solar PV	8,208
Solar Thermal	3,024
Wind	1,866
Biomass	6,083
Geothermal	0

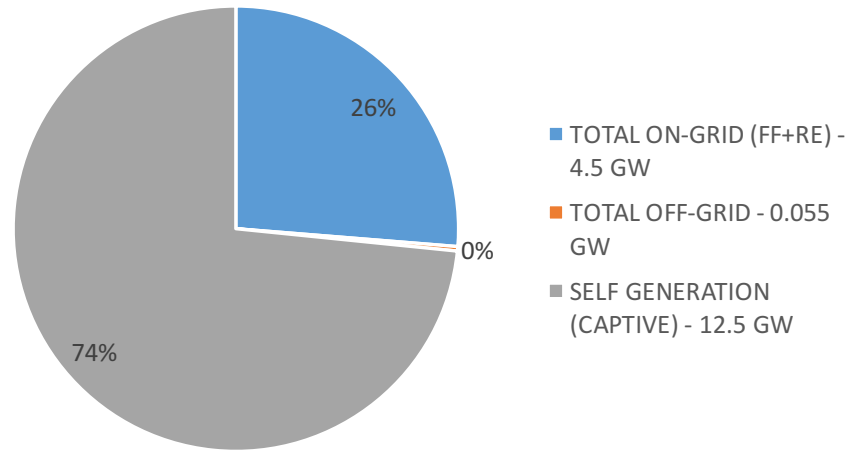


	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
TOTAL OFF-GRID - MWH/H	11	31	55	150	275	450	540	810	1,053	1,385	1,844	2,487	3,394	4,688	5,625	6,751	8,000
TOTAL ON-GRID (FF+RE) - MW	3,716	4,188	4,476	6,288	7,767	8,969	10,273	11,690	13,232	14,904	16,722	19,684	21,843	24,307	27,300	30,060	32,000
SELF GENERATION (CAPTIVE) - MW	13,800	13,800	12,500	12,000	11,500	11,000	10,500	10,000	9,500	9,000	8,500	8,000	7,500	7,000	6,500	6,000	5,000
TOTAL MW	17,527	18,019	17,031	18,438	19,542	20,419	21,313	22,500	23,785	25,290	27,067	30,170	32,737	35,995	39,426	42,811	45,000



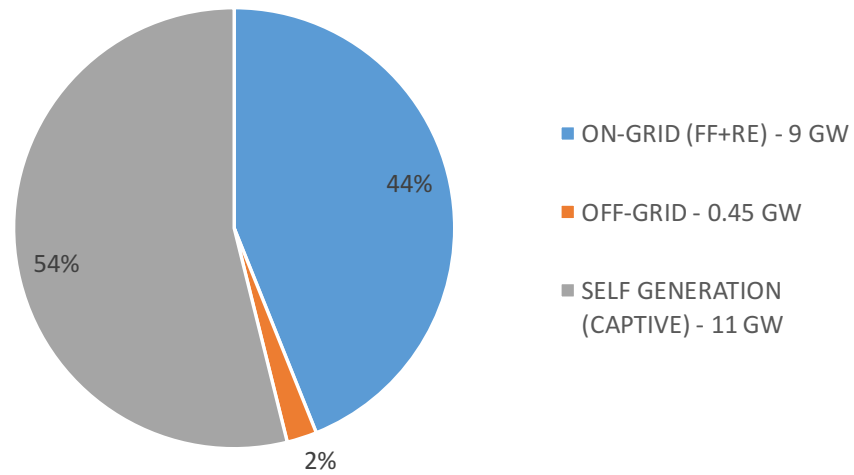
2016	
TOTAL ON-GRID	4,476
TOTAL OFF-GRID	55
SELF GENERATION	12,500

TOTAL ELECTRICITY SUPPLY IN 2016: 18 GW



2019	
ON-GRID (FF+RE)	8,969
OFF-GRID - 0.4	450
SELF GENERATION	11,000

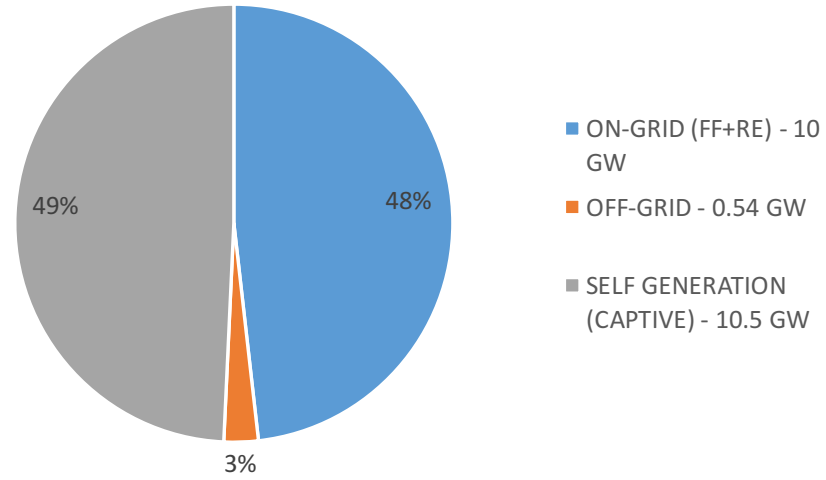
TOTAL ELECTRICITY SUPPLY IN 2019: 20 GW



2020

ON-GRID (FF+I)	10,273
OFF-GRID - 0.5	540
SELF GENERAT	10,500

TOTAL ELECTRICITY SUPPLY IN 2020: 21.5GW



2030

ON-GRID (FF+I)	30,000
OFF-GRID - 8 C	8,000
SELF GENERAT	5,000

TOTAL ELECTRICITY SUPPLY IN 2030: 43GW

