

## **COVID-19: UN LOCK 1.0: POWER CONSUMPTION HIGHLIGHTS**

*Prepared by K Asokan ( Director, InSDES, Shoranur  
&  
P Subhash ( InSDES, Shoranur )*

1. All India daily average power consumption during June 2020 (Un lock 1.0 period) is 3549.50 MU, which is almost equal to that during Pre-lock down period and 4<sup>th</sup> stage lock down period.
2. Daily average consumption in June 2020 is 6.8% higher than that of last month (May 2020) and 10.5% lower than June 2019 consumption.
3. Peak demand met during June 2020 is 1,64,946 MW (on 23-06-2020). This is 0.9% below that of May 2020 (1,66,424 MW) and 9.7% below that of June 2019 (1,82,591 MW).
4. There is an increase of 12.2% in the daily average electricity consumption of Northern Region in the Un lock 1.0 period compared to that in the 4<sup>th</sup> stage of lock down and 49.75% increase compared to that in the pre-lock down period.
5. Daily average power consumption in Northern Region during June 2020 is 26.6% higher than that of May 2020 and 7.8% lower than that of June 2019.
6. The daily average consumption in Western and Southern regions during Un lock 1.0 period are lower than that during May 2020, Pre-lock down period and June 2019.
7. The daily average consumption in Eastern and North- Eastern regions during June 2020 are higher than that during May 2020 and Pre-lock down period and lower than that of June 2019.
8. The power consumption in June 2020 in the states of Uttar Pradesh, Rajasthan and Punjab coming under Northern Region are higher than that of May 2020 and Pre-lock down period and lower than that during the same month last year.
9. Electricity consumption during the Un lock 1.0 period in the states of Maharashtra, Gujrath and Madhya Pradesh coming under Western Region are lower than that during May 2020, Pre-lock down period and June 2019.

10. The power consumption in the Southern Region states of Karnataka, Telengana and Andhra Pradesh in June 2020 are lower than that during May 2020, Pre-lock down period and June 2019. The power consumption in Tamil Nadu during this period is higher than that during May 2020 and lower than that during Pre-lock down period and June 2019.
11. In Kerala, Electricity consumption in June 2020 was 64.06 MU compared to 70.71 MU in May 2020, 82.54 MU prior to lock down and 72.55 MU in June 2019. The onset of south west monsoon and the fact that Economic and Construction activities in the state have not returned to normalcy despite relaxation of lock down restrictions are the reasons for the decline in electricity consumption in the state.
12. Heat wave in Northern parts of the country is a reason for the increase in consumption in the states coming under this region.
13. The cyclone NISARGA and south west monsoon are among the reasons for the reduction in electricity consumption during June 2020 in Western and Southern regions.
14. The share of electricity generation from fossil fuel sources in India during June 2020 is 68.16% compared to 70.72% in May 2020 and 78.29% during Pre-lock down period. The share during June 2019 was 74.6%.
15. The daily average hydro generation in June 2020 is 593.5 MU compared to 312.29 MU during Pre-lock down and 484.1 MU during May 2020. The share of hydro generation has increased to 16.86% in June 2020 from 14.2% in May 2020 and 8.71% prior to lock down. The share of hydro generation in June 2019 was 11.4%
16. The share of Renewable Energy in total electricity generation in June 2020 is 11.94%, the same as that of May 2020. The share of Renewable Energy Sources during Pre-lock down period was 9.53% and that during June 2019 was 10.68%.

**For details, please see Annexures 1 to 5 given below**

---

**ANNEXURE-1**

TABLE-1

<b>ALL INDIA REGION WISE COMPARISON OF DAILY AVERAGE CONSUMPTION DURING PRE-LOCK DOWN, LOCK DOWN &amp; UN LOCK1.0 PERIODS</b>							
REGION	PRE-LOCK DOWN*	APRIL-2019	APRIL-2020	MAY-2019	MAY-2020	JUNE-2019	JUNE-2020
NORTH	830.3	991	725.23	1180	982.42	1348	1243.37
WEST	1156.6	1217	917.1	1229	1046.71	1151	964.43
SOUTH	1125	1048	839.97	1017	898.1	957	872.23
EAST	368.4	435	320.63	453	356.77	458	422.03
NORTH - EAST	41.8	41	32.44	42	39.55	51	47.47
ALL INDIA	3522.1	3732	2835.23	3921	3323.52	3964	3549.5

TABLE-2

<b>TEN TOP COSUMING STATES - COMPARISON OF DAILY AVERAGE CONSUMPTION DURING PRE-LOCK DOWN, LOCK DOWN &amp; UN LOCK1.0 PERIODS</b>							
STATES	PRE-LOCK DOWN*	APRIL-2019	APRIL-2020	MAY-2019	MAY-2020	JUNE-2019	JUNE-2020
MAHA RASHTRA	480.2	491	391.8	498	428.8	462	370.8
GUJRATH	349.9	374	259.4	379	307.8	355	298.6
UTTAR PRADESH	244.8	336	265.2	409	330.1	424	392.5
TAMIL NADU	339.5	344	243	342	289.9	335	300.1
RAJASTHAN	210	207	162.5	230	217.4	251	239.5
MADHYA PRADESH	199.8	224	177.2	226	199.8	213	175.1
KARNATAKA	251.7	234	204.1	216	195.1	193	176.4
TELENGANA	242.9	190	160	172	155.5	161	153.7
ANDHRA PRADESH	199.9	190	159.5	195	179.5	188	170.1
PUNJAB	99.8	121	79.7	154	133.2	227	224.3

TABLE-3

<b>KERALA - COMPARISON OF DAILY AVERAGE CONSUMPTION DURING PRE-LOCK DOWN, LOCK DOWN &amp; UN LOCK1.0 PERIODS</b>							
STATE	PRE-LOCK DOWN*	APRIL-2019	APRIL-2020	MAY-2019	MAY-2020	JUNE-2019	JUNE-2020
KERALA	82.54	81.00	68.32	82.56	70.71	72.55	64.06

TABLE-4

DAILY AVERAGE SOURCE WISE GENERATION FOR APRIL, MAY & JUNE 2020 in MU							
SOURCE	PRE-LOCK DOWN DAILY AVERAGE	APRIL- 2020		MAY- 2020		JUNE-2020	
		DAILY AVERAGE	MONTH TOTAL	DAILY AVERAGE	MONTH TOTAL	DAILY AVERAGE	MONTH TOTAL
Coal	2570.9	1905.0	57149	2186.9	67793	2169.5	67254
Lignite	87.1	76.4	2292	74.8	2318	76.8	2382
Gas, Naphtha & Diesel	148.1	141.3	4239	149.0	4619	153.9	4770
<b>Total from fossil fuels</b>	<b>2806.1</b>	<b>2122.7</b>	<b>63680</b>	<b>2410.6</b>	<b>74730</b>	<b>2400.2</b>	<b>74406.0</b>
Nuclear	124.57	112.5	3376	107.0	3316	107.3	3325
Hydro	312.29	352.4	10573	484.1	15008	593.5	18400
R.E.S	341.43	320.1	9603	407.0	12617	420.5	13035
<b>Total from all Sources</b>	<b>3584.39</b>	<b>2907.73</b>	<b>87232.00</b>	<b>3408.74</b>	<b>105671.00</b>	<b>3521.48</b>	<b>109168.00</b>
DAILY AVERAGE SOURCE WISE GENERATION FOR APRIL, MAY & JUNE 2020 AS % OF TOTAL GENERATION							
SOURCE	PRE-LOCK DOWN	APRIL- 2020		MAY- 2020		JUNE-2020	
Coal	71.72	65.51		64.15		61.61	
Lignite	2.43	2.63		2.19		2.18	
Gas, Naphtha & Diesel	4.13	4.86		4.37		4.37	
Nuclear	3.48	3.87		3.14		3.05	
Hydro	8.71	12.12		14.2		16.86	
R.E.S	9.53	11.01		11.94		11.94	
<b>Total fossil fuels</b>	<b>78.29</b>	<b>73.00</b>		<b>70.72</b>		<b>68.16</b>	

TABLE-5

ALL INDIA REGION WISE % DIFFERENCE IN DAILY AVERAGE CONSUMPTION OF JUNE 2020 TO PRE-LOCK DOWN , MAY-2020 & JUNE-2019							
REGION	PRE-LOCK DOWN*	MAY-2020	JUNE-2019	JUNE-2020	% DIFFERENCE IN CONSUMPTION OF JUNE 2020 TO		
					PRE-LOCK DOWN	MAY-2020	JUNE-2019
NORTH	830.3	982.42	1348	1243.37	49.75	26.56	-7.76
WEST	1156.6	1046.71	1151	964.43	-16.62	-7.86	-16.21
SOUTH	1125	898.1	957	872.23	-22.47	-2.88	-8.86
EAST	368.4	356.77	458	422.03	14.56	18.29	-7.85
NORTH - EAST	41.8	39.55	51	47.47	13.56	20.03	-6.92
ALL INDIA	3522.1	3323.52	3964	3549.5	0.78	6.80	-10.46

TABLE-6

**TEN TOP CONSUMING STATES & KERALA - % DIFFERENCE IN DAILY AVERAGE CONSUMPTION OF JUNE 2020 TO PRE-LOCK DOWN , MAY-2020 & JUNE-2019**

STATES	PRE-LOCK DOWN*	MAY-2020	JUNE-2019	JUNE-2020	% DIFFERENCE IN CONSUMPTION OF JUNE 2020 TO		
					PRE-LOCK DOWN	MAY-2020	JUNE-2019
MAHA RASHTRA	480.2	428.8	462	370.8	-22.78	-13.53	-19.74
GUJRATH	349.9	307.8	355	298.6	-14.66	-2.99	-15.89
UTTAR PRADESH	244.8	330.1	424	392.5	60.33	18.90	-7.43
TAMIL NADU	339.5	289.9	335	300.1	-11.61	3.52	-10.42
RAJASTHAN	210	217.4	251	239.5	14.05	10.17	-4.58
MADHYA PRADESH	199.8	199.8	213	175.1	-12.36	-12.36	-17.79
KARNATAKA	251.7	195.1	193	176.4	-29.92	-9.58	-8.60
TELENGANA	242.9	155.5	161	153.7	-36.72	-1.16	-4.53
ANDHRA PRADESH	199.9	179.5	188	170.1	-14.91	-5.24	-9.52
PUNJAB	99.8	133.2	227	224.3	124.75	68.39	-1.19
KERALA	82.50	70.50	73.00	64.06	-22.35	-9.13	-12.25

TABLE-7

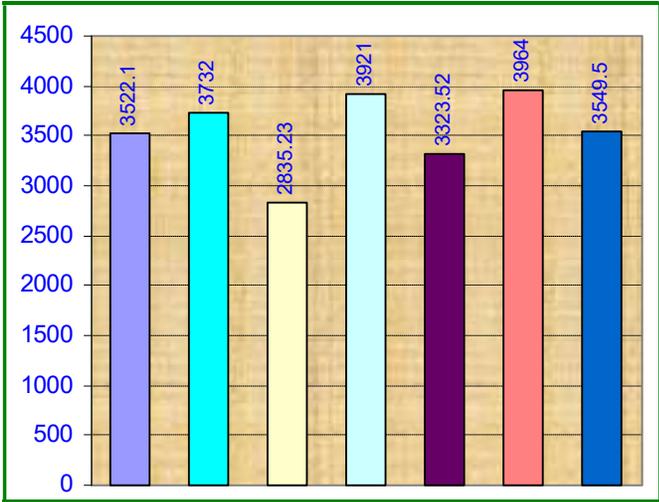
ALL INDIA % DIFFERENCE IN SOURCE WISE DAILY AVERAGE GENERATION OF JUNE 2020 TO PRE-LOCK DOWN & MAY 2020					
SOURCE	PRE-LOCK DOWN	MAY-2020	JUNE-2020	% DIFFERENCE IN GENERATION OF JUNE 2020 TO	
				PRE-LOCK DOWN	MAY-2020
Coal	2570.90	2186.9	2169.5	-15.61	-0.80
Lignite	87.10	74.8	76.8	-11.78	2.76
Gas, Naphtha & Diesel	148.10	149.0	153.9	3.90	3.27
<b>Total from fossil fuels</b>	2806.10	<b>2410.6</b>	<b>2400.2</b>	<b>-14.47</b>	<b>-0.43</b>
Nuclear	124.57	107.0	107.3	-13.90	0.27
Hydro	312.29	484.1	593.5	90.06	22.60
R.E.S	341.43	407.0	420.5	23.15	3.31
<b>Total from all Sources</b>	3584.39	<b>3408.74</b>	<b>3521.5</b>	<b>-1.76</b>	<b>3.31</b>

\*Pre-Lock down period : 15th to 21st March 2020

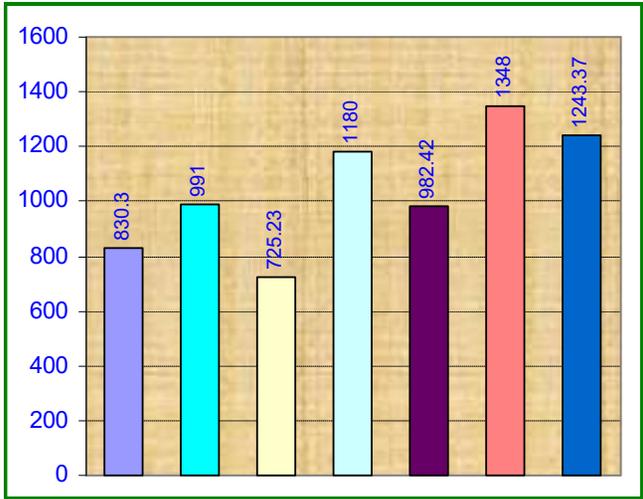
Source : InSDES compilation of data available at at [https://www.posoco.in/Reports/Daily\\_reports](https://www.posoco.in/Reports/Daily_reports), [https://www.cea.in/reports/executive summary](https://www.cea.in/reports/executive_summary) & [http:// www.sldckerala.com/System Statistics/Generation](http://www.sldckerala.com/System_Statistics/Generation)

For Related Articles : visit <https://insdes.in/reports/>

**ANNEXURE-2**  
**ALL INDIA REGION WISE COMPARISON OF DAILY AVERAGE CONSUMPTION DURING PRE-LOCK DOWN, LOCK DOWN & UN LOCK1.0 PERIODS**



**ALL INDIA**

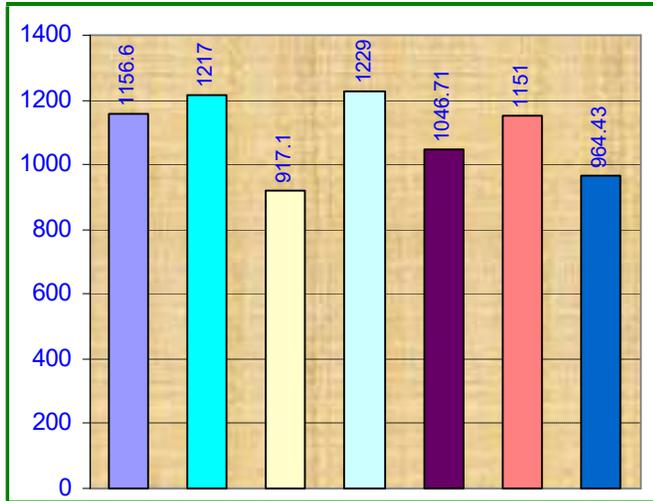


**NORTH**

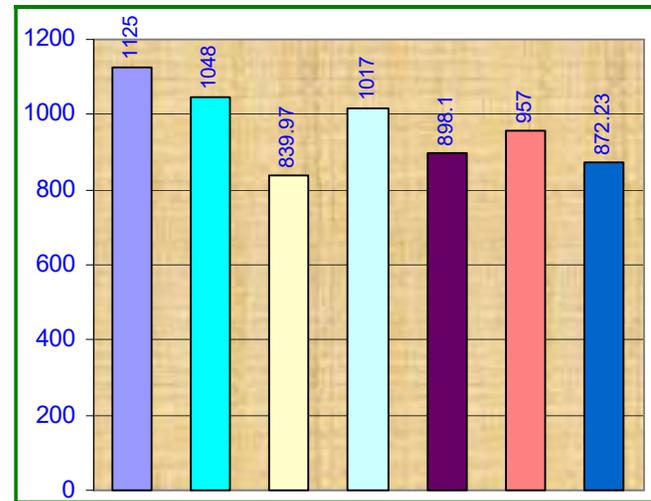


**LEGEND**

**ALL INDIA REGION WISE COMPARISON OF DAILY AVERAGE CONSUMPTION DURING PRE-LOCK DOWN, LOCK DOWN & UN LOCK1.0 PERIODS**



**WEST**

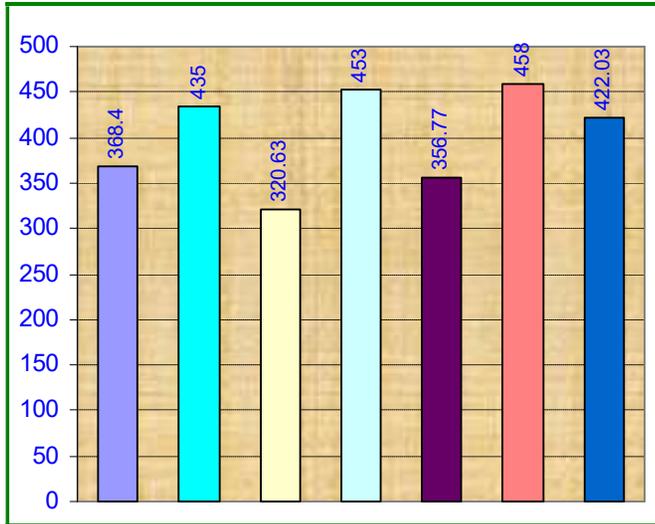


**SOUTH**

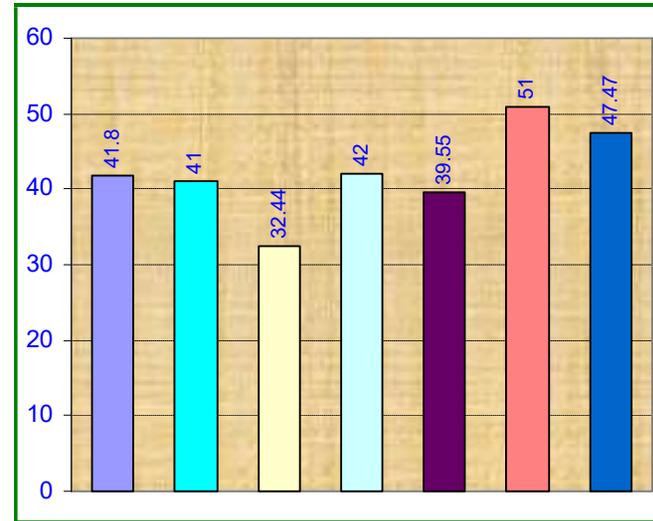


**LEGEND**

**ALL INDIA REGION WISE COMPARISON OF DAILY AVERAGE CONSUMPTION DURING PRE-LOCK DOWN, LOCK DOWN & UN LOCK1.0 PERIODS**



**EAST**



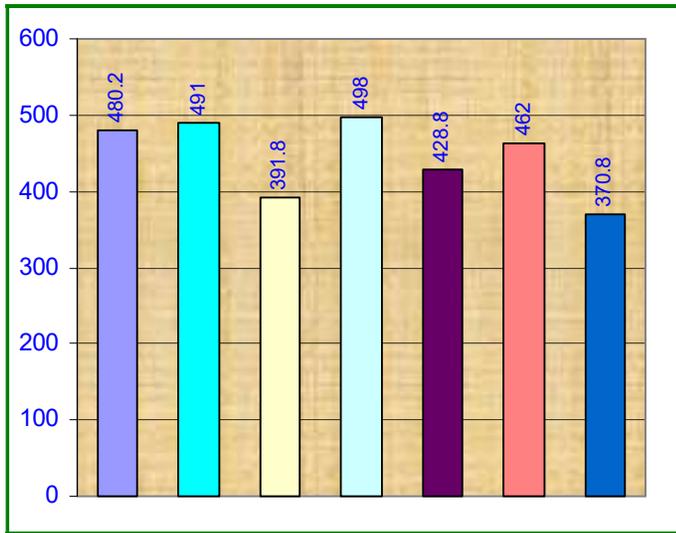
**NORTH-EAST**



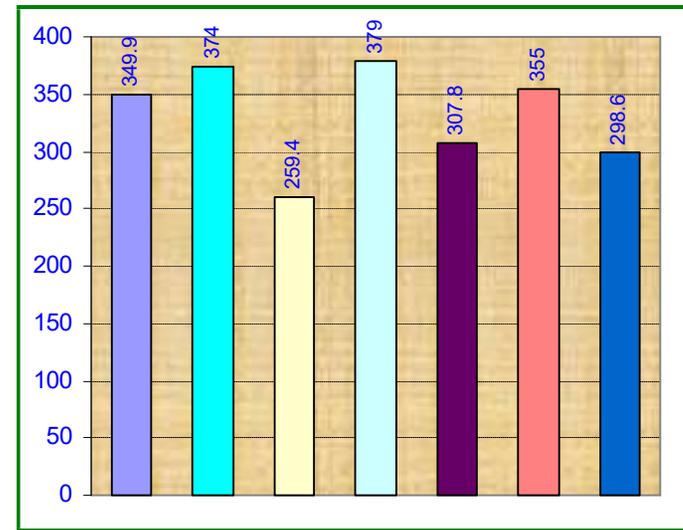
**LEGEND**

### ANNEXURE-3

## TEN TOP CONSUMING STATES - COMPARISON OF DAILY AVERAGE CONSUMPTION DURING PRE-LOCK DOWN, LOCK DOWN & UNLOCK1.0 PERIODS



MAHARASHTRA

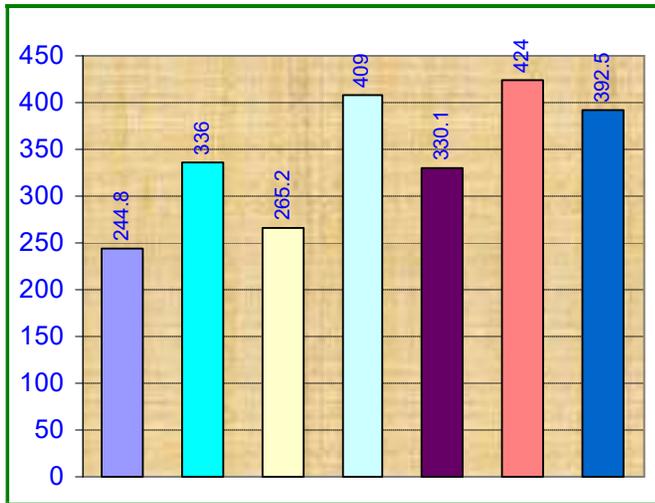


GUJRATH

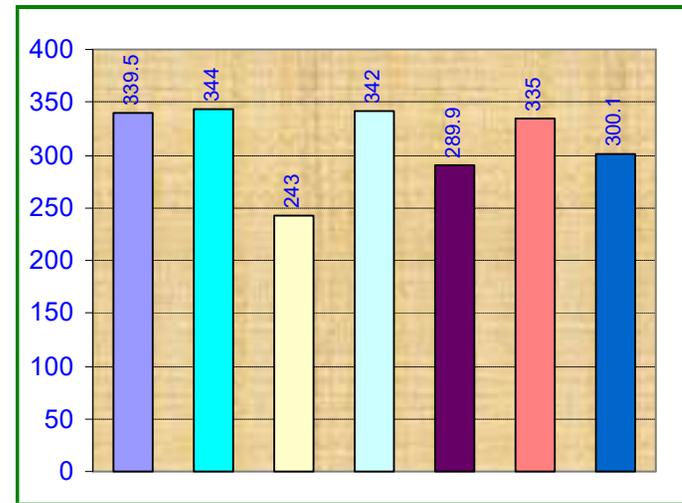


LEGEND

**TEN TOP CONSUMING STATES - COMPARISON OF DAILY AVERAGE CONSUMPTION DURING PRE-LOCK DOWN, LOCK DOWN & UNLOCK1.0 PERIODS**



**UTTAR PRADESH**

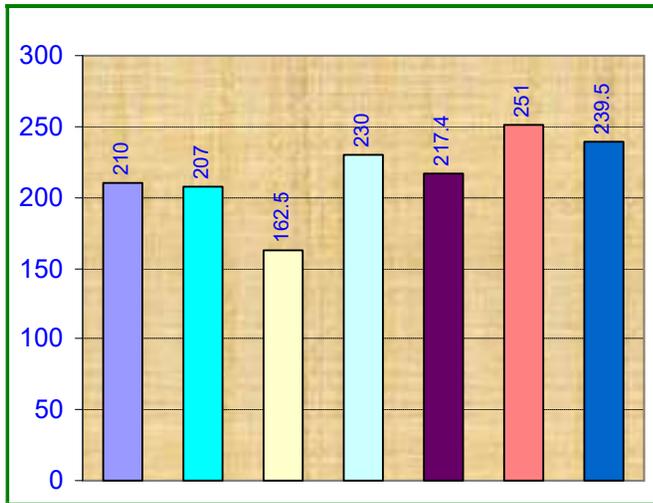


**TAMIL NADU**

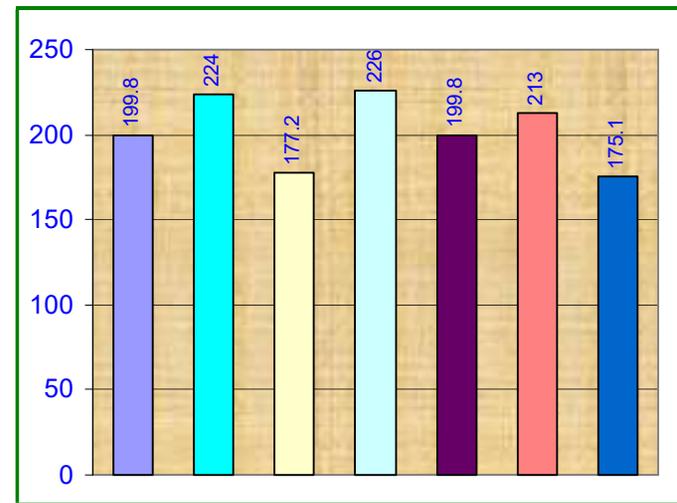


**LEGEND**

**TEN TOP CONSUMING STATES - COMPARISON OF DAILY AVERAGE CONSUMPTION DURING PRE-LOCK DOWN, LOCK DOWN & UNLOCK1.0 PERIODS**



**RAJASTHAN**

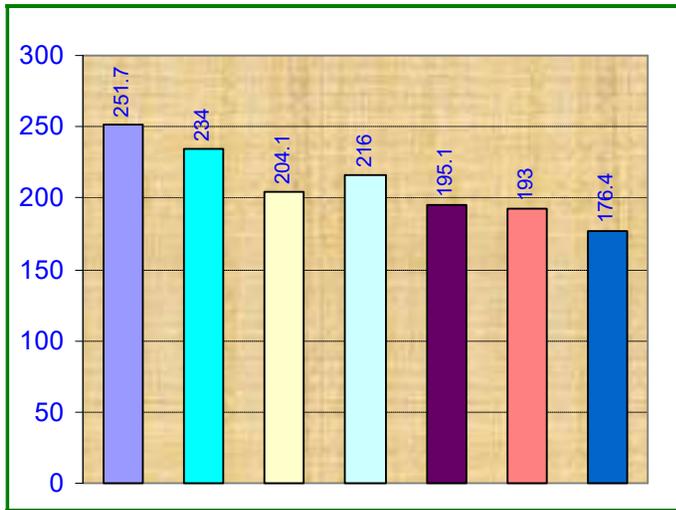


**MADHYA PRADESH**

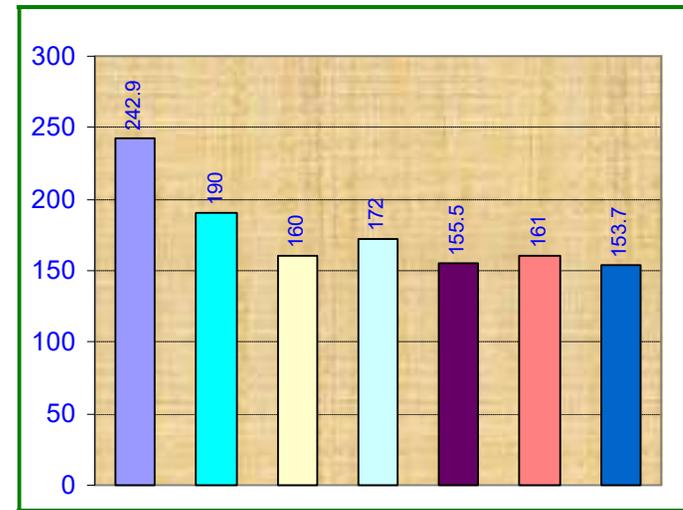


**LEGEND**

### TEN TOP CONSUMING STATES - COMPARISON OF DAILY AVERAGE CONSUMPTION DURING PRE-LOCK DOWN, LOCK DOWN & UNLOCK1.0 PERIODS



**KARNATAKA**

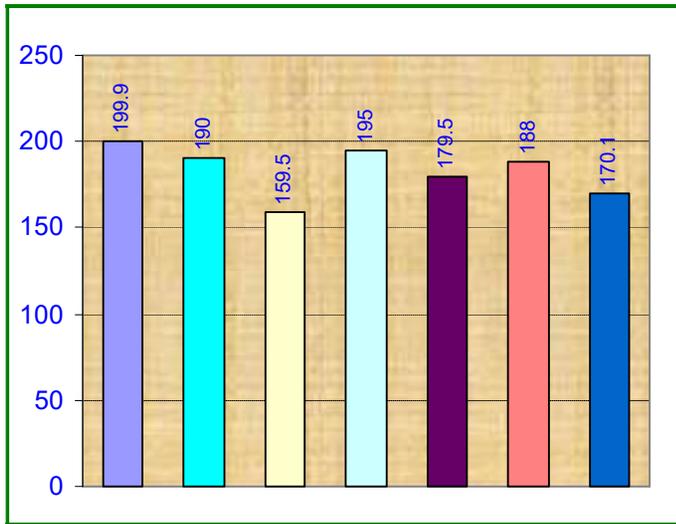


**TELENGANA**

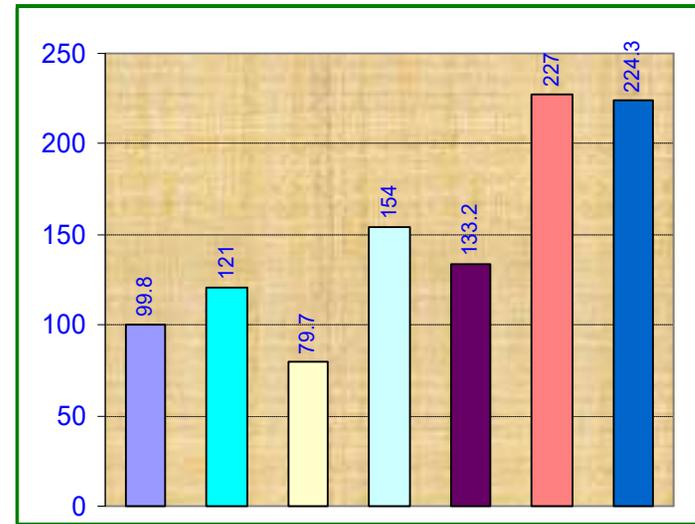


**LEGEND**

**TEN TOP CONSUMING STATES - COMPARISON OF DAILY AVERAGE CONSUMPTION DURING PRE-LOCK DOWN, LOCK DOWN & UNLOCK1.0 PERIODS**



**ANDHRA PRADESH**

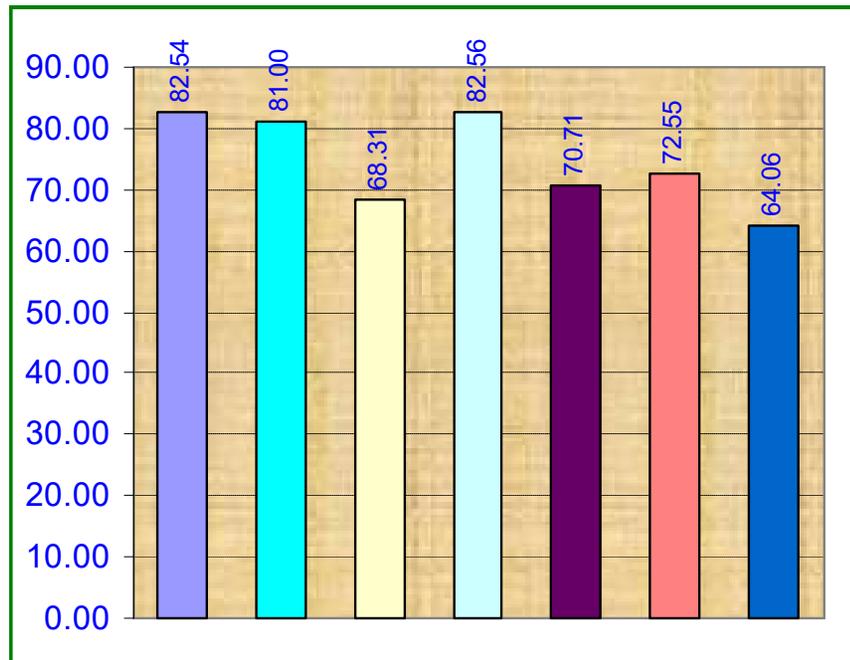


**PUNJAB**



**LEGEND**

**ANNEXURE-4**  
**KERALA STATE - COMPARISON OF DAILY AVERAGE CONSUMPTION DURING PRE-LOCK DOWN,  
LOCK DOWN & UNLOCK1.0 PERIODS**



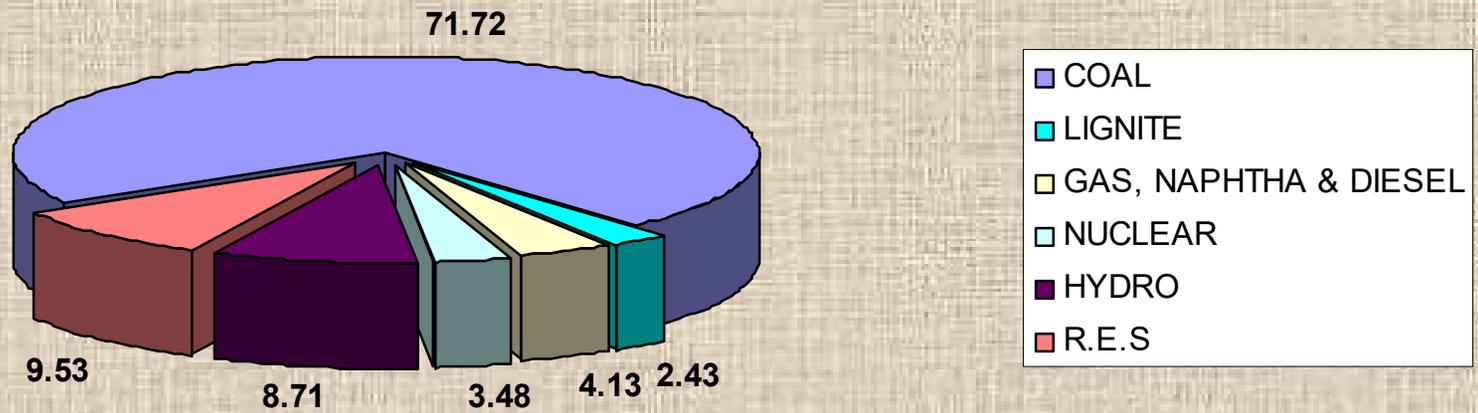
**KERALA**



**LEGEND**

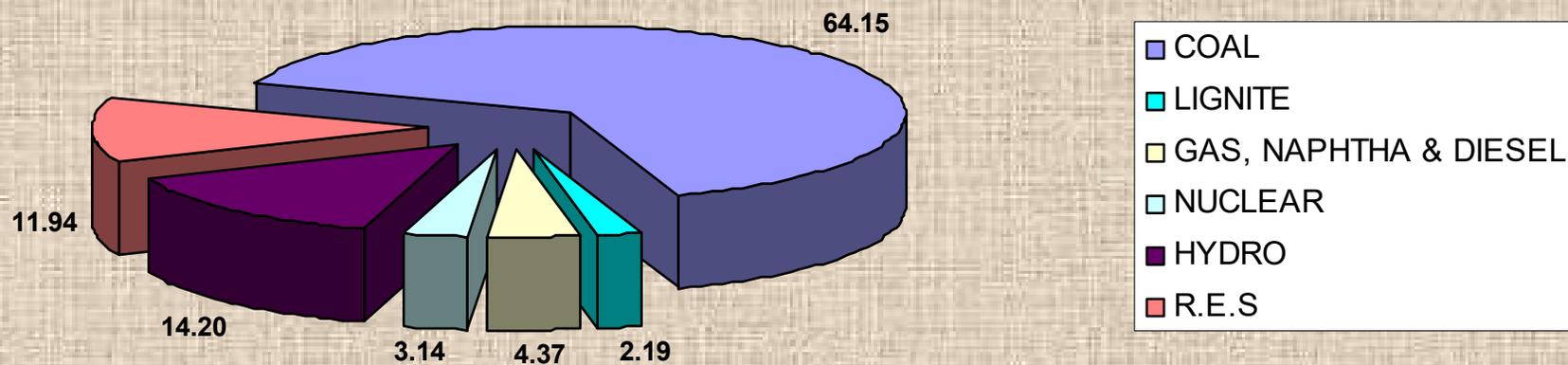
**ANNEXURE-5**

**ALL INDIA SOURCE WISE GENERATION in % - BEFORE LOCK DOWN**



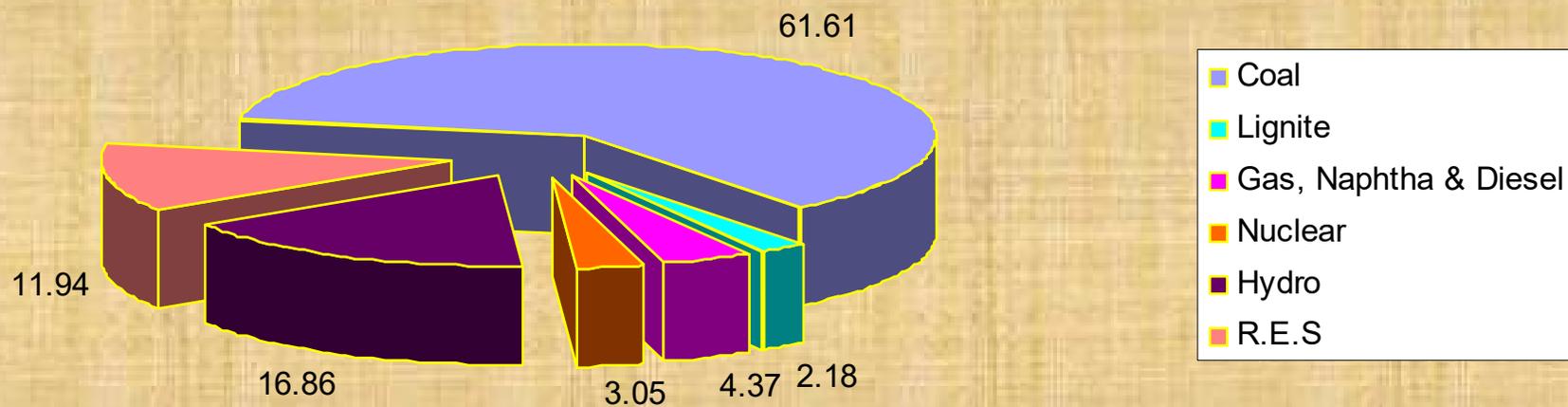
**FOSSIL FUELS TOTAL : 78.28%**

### ALL INDIA SOURCE WISE GENERATION in % - DURING LOCK DOWN MAY-2020



FOSSIL FUELS TOTAL : 70.71%

### ALL INDIA SOURCE WISE GENERATION - JUNE 2020



TOTAL FOSSIL FUELS : 68.16%