

Simulating the effect of Pooled Common Tariff



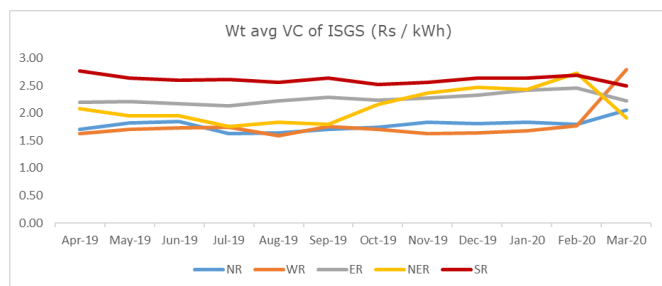
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1. Background and Scope

Most of the generation capacities including the Inter-state Generation stations whose tariff is approved or adopted by the Commission under section-62 and section-63 of the Act are tied up in long term power purchase agreements (of 25 years) with the distribution companies (Discoms) and the rest in medium term contracts (up to 5 years) & short term contracts (up to 1 year). These are mostly physical contracts. On a day-ahead basis, the Discoms self-schedule based on such contracts. Self-scheduling refers to the procedure which Discoms follow to requisition power from the generating stations with which they have contracts.

Power is generally tied up by a state from various PPAs which have differing variable cost and fixed costs. As such, it is important to note that the average cost of power varies from state to state in the country. For instance, the representation alongside shows the weighted average variable cost of ISGS stations across various regions on the country. As most of the states in a particular region are tied up with the ISGS in that region itself, there is a wide disparity in the average power procurement cost across states. Similar is the case with the fixed costs as well as transmission charges paid by each of the states.



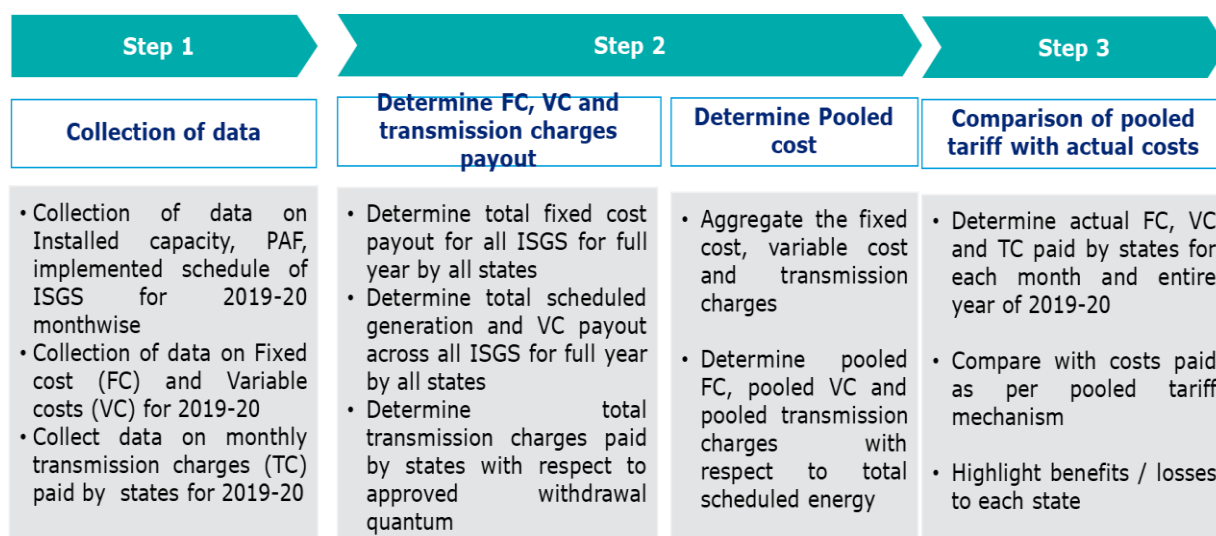
A pooled or a uniform tariff could thus pave the way for bringing in uniformity in the power purchase cost per unit of energy scheduled by each of the states from such ISGS stations. With this backdrop and consideration, WEC India has proposed to undertake a study with an objective of Simulating the effect of Pooled Common Tariff in the country. Following is the detailed scope of the work for the activity:-

- a. Calculation of Pooled Common Tariff consisting of both:
 - Generation Cost of all the Inter-State Generation Cost – consisting of both the Energy Charge and the Capacity Charge
 - Transmission Charges of the ISTS network and the Transmission loss
- b. Determining the impact of this Pooled Common Tariff on the different states:
 - Based on the actual generation in the country in last year (FY 2019-20), working to be done to calculate the actual cost to different DISCOMS/ States
 - Based on the same data, the total cost is to be computed based on the Common Pooled Tariff
 - Analysis on difference between these two tariffs and highlighting which states are gaining and which are losing

Chapter two

Methodology adopted for the study

We have adopted the following methodology for carrying out the assessment of the pooled tariff for each month of the year 2019-20:



Methodology 1

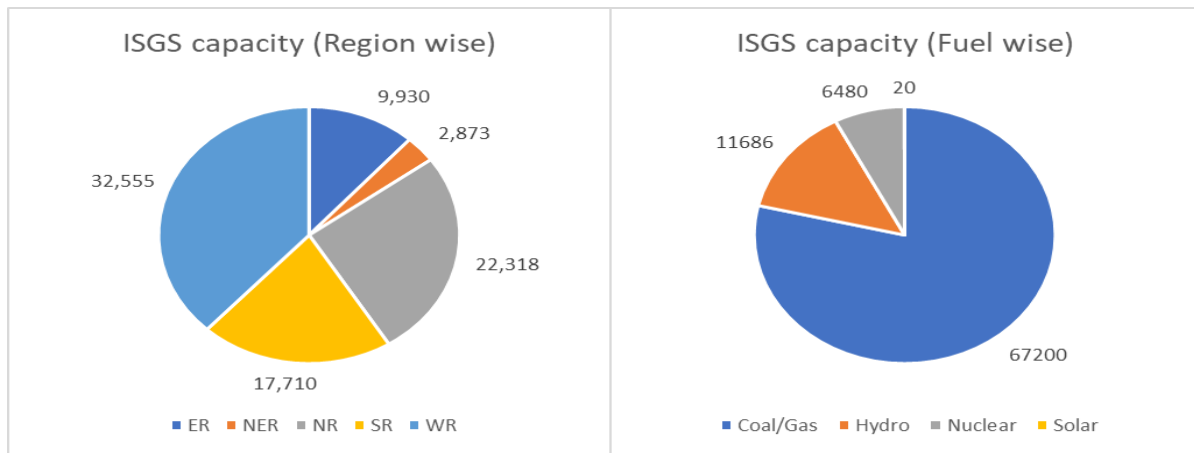
Step 1: Collection of data for determining pooled tariff

As a first step, we have collected the following data with regards to the ISGS stations and states in the country:-

Data requirement	Details	Source
Plant details	- Installed capacity - Plant Availability factor for each month and Normative Plant availability	CEA, REA
Beneficiary wise entitlement*	% entitlement of each station to concerned beneficiaries / states	REA
Scheduling and dispatch	Scheduled generation for all ISGS plants to beneficiaries on a monthly basis for one full year 2019-20	REA
Station wise fixed cost	For NTPC stations – As per actual billed fixed costs For other ISGS – As per tariff orders	NTPC, Tariff orders
Station wise variable cost	For NTPC stations – As per RRAS reports For other ISGS – As per RRAS reports / tariff orders	RRAS, Tariff orders
Transmission charges	Data on transmission charges paid by each state on a monthly basis for the entire year 2019-20 for selected ISGS stations	RTA

Only state discoms of India have been considered and other beneficiaries viz. Nepal, Bangladesh, etc. have not been considered

The following is the snapshot of the overall fleet of Inter-state generating stations across all regions which have been considered for determination of the pooled tariff for 2019-20:-



The capacity of ISGS pertains to the following entities:

1. National Thermal Power Corporation Ltd.
2. Neyveli Lignite Corporation Ltd.
3. Nuclear Power Corporation of India
4. National Hydroelectric Power Corporation Ltd.
5. North Eastern Electric Power Corporation Limited
6. Satluj Jal Vidyut Nigam Ltd.
7. THDC India Limited
8. JVs and IPPs viz. RGPPL, CGPL, Sasan, etc.

Any other ISGS whose scheduling is not carried out by RLDCs or whose data is not available in Regional Energy Accounts have not been considered for the simulation. The list of ISGS stations considered for the study is highlighted in Annexure 1.

Step 2: Determining actual pay out of states as per existing mechanism

The second step is to determine state wise fixed cost pay out, variable cost pay out and transmission charges paid month wise for entire year. The total charges determined would be utilized to calculate National pooled tariff which would be payable uniformly by all states. Following are the various sub-steps in this process:-

1) Determine total fixed, variable and transmission charges payout

In the first sub-step, the total fixed cost and variable cost pay out for each state was determined in the existing mechanism. The total fixed cost pay out was arrived at by determining the recoverable fixed cost of each station based on the Normative FC for the month and the Plant Availability Factor. The recoverable fixed cost is then allocated by its beneficiaries as per their respective percentage share or allocation in the capacity of the generating station. The total variable cost pay out was determined based on the summation of the product of energy charge rate for the month / approved variable cost for the quantum of scheduled generation from each station.

In the second sub-step, the data on transmission charges, as available with RTA, was considered. However, for the purpose of the exercise, we have determined the transmission charges payable for the approved withdrawal quantum from the aforementioned ISGS plants only. Other stations, for which the states are mandated to pay transmission charges, but whose scheduling and dispatch related data is not available in Regional Energy Accounts of the RPCs are not considered.

In the third sub-step, we arrive at the pooled VC, pooled FC and pooled TC for each month of the year using the below formula:-

Pooled VC of power procured = $(\sum_{S=1}^m \sum_{i=1}^n Q_i * V_{Ci}) / \text{Total quantum of energy scheduled for the month across all states}$

Where Q is the quantum of energy scheduled from ith station
 VC, Variable cost of ith stations
 n= no of ISGS stations
 m= no of states / beneficiaries considered

Pooled FC of power procured = $\sum (\text{Fixed charges recoverable for generator} \times \text{Total \% entitlement for selected beneficiaries}) / \text{Total quantum of energy scheduled for the month}$

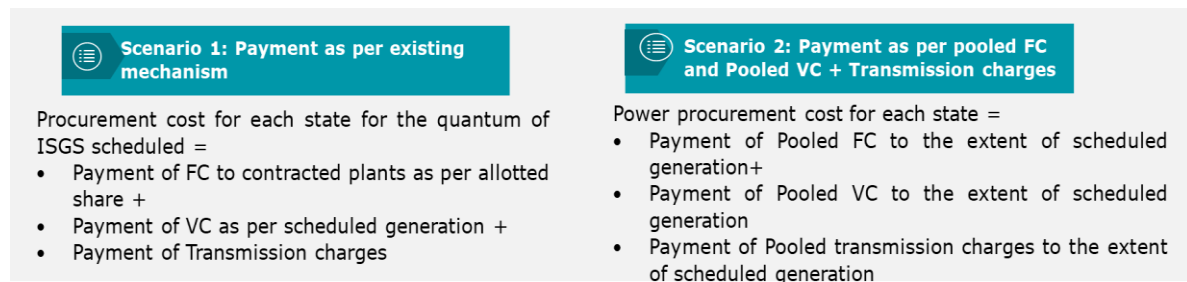
Pooled Transmission charges = $\text{Total transmission charges paid for the month by all beneficiaries} / \text{Total quantum of energy scheduled for the month}$

Step 3: Comparison of new procurement cost vs actual procurement cost state wise

Once the Pooled variable cost, fixed cost and transmission charges was arrived at, the next step is to re-calculate the envisaged payout if each of the states / beneficiaries were to pay the pooled cost for the total quantum of energy scheduled by them. Thus, the following formulae was used:-

1. Variable cost payout of each state for the month= Pooled VC * Total energy scheduled by the state
2. Fixed cost payout of each state for the month = Pooled FC * Total energy scheduled by the state
3. Transmission cost payout of each state for the month= Pooled TC * Total energy scheduled by the state

Based on the new procurement costs as per pooled tariffs, a comparison is carried out between the procurement cost in existing mechanism to that of in a pooled tariff mechanism to determine gains / losses of states for each month. This is illustrated in the diagram below:-



To understand the impact of the pooled tariff for each of the states on an annual basis, the gains / losses have been finally summarized for the entire year (2019-20).

Methodology 2

As an alternate to determining the fixed cost payout of each state as per the pooled FC (based on scheduled energy), as described above, we have also tried to calculate the revised Fixed cost payout of each of the states as per an alternate methodology. In this, the present fixed cost payout to each of the generator state-wise is divided into two components:

- Fixed cost payout corresponding to scheduled energy:** Based on the ratio of energy scheduled and overall availability for the month, the overall fixed cost to be recovered for the scheduled energy component of a generating plant is determined. This portion of recoverable fixed cost is then allocated to its beneficiaries as per their respective percentage share or allocation in the capacity of the generating station.
- Fixed cost payout corresponding to un-requisitioned surplus (URS):** Based on the ratio of URS and overall availability for the month, the overall fixed cost to be recovered for the URS component of a generating plant is determined. This portion of recoverable fixed cost is then allocated to all the states / beneficiaries as per their respective percentage share or allocation in the overall quantum of ISGS fleet in the country.

The total fixed cost payout of each state, in the pooled mechanism, is determined as follows:-

Fixed cost payout of each state for the month = Fixed cost payout corresponding to scheduled energy + Fixed cost payout corresponding to pooling of un-requisitioned surplus (URS)

This fixed cost payout is then used to compare the total payment as per existing mechanism (similar to the mechanism described above) and total payment as per pooled mechanism.

Over and above the activities as specified above, following additional tasks have been carried out:

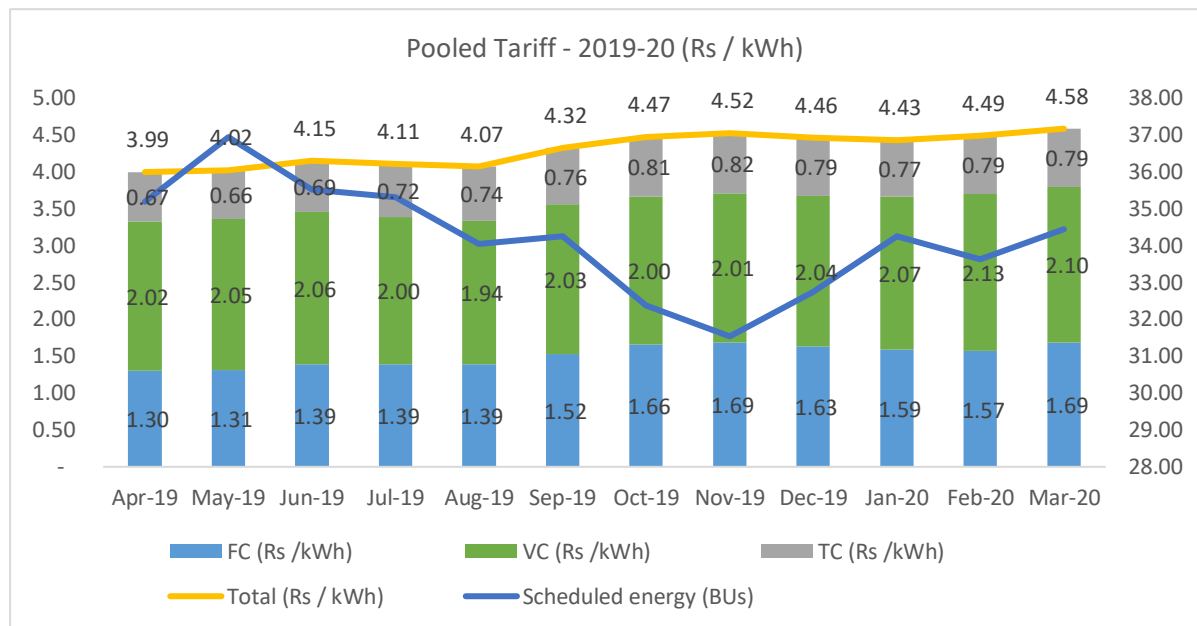
- a. Undertaking sensitivity analysis of the pooled common tariff on variation in energy scheduled from ISGS stations and new capacity additions in the future.
- b. Undertaking an optimization of the Actual Energy scheduled in 2019-20 using Generation Bucket Filling methodology and assessing the impact of the same on Pooled Common Tariff.

Chapter three

Determination of pooled common tariff and its impact

Following are the results of pooled tariff for ISGS stations for various months of the year based on the aforementioned methodology:

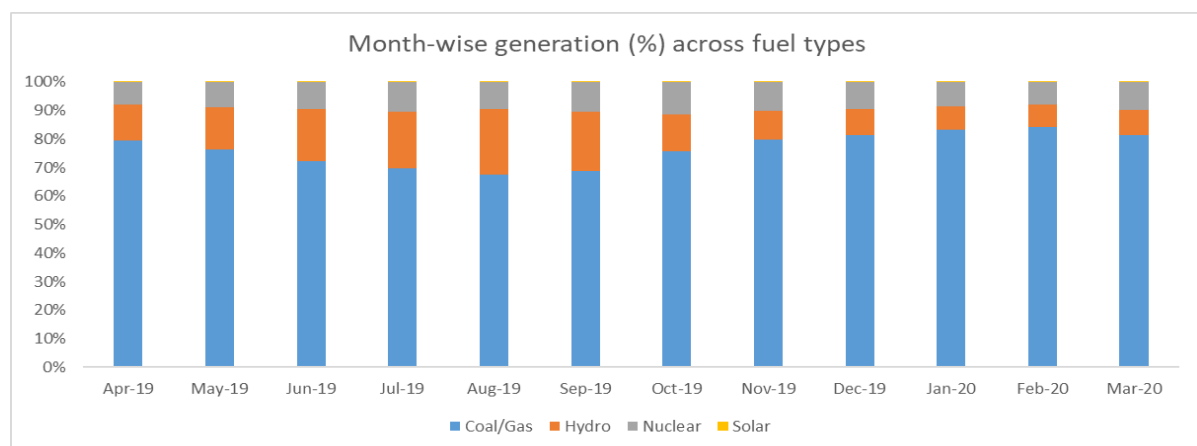
Methodology 1



The total pooled tariff comprising of fixed cost, variable cost and transmission cost (Rs /kWh) for various months of the year is reproduced as below:

Months	Pooled tariff (FC+VC+TC) Rs /kWh
Apr-19	3.993
May-19	4.018
Jun-19	4.146
Jul-19	4.106
Aug-19	4.069
Sep-19	4.320
Oct-19	4.466
Nov-19	4.519
Dec-19	4.459
Jan-20	4.428
Feb-20	4.487
Mar-20	4.581

The month wise generation across different fuel types is produced as below:

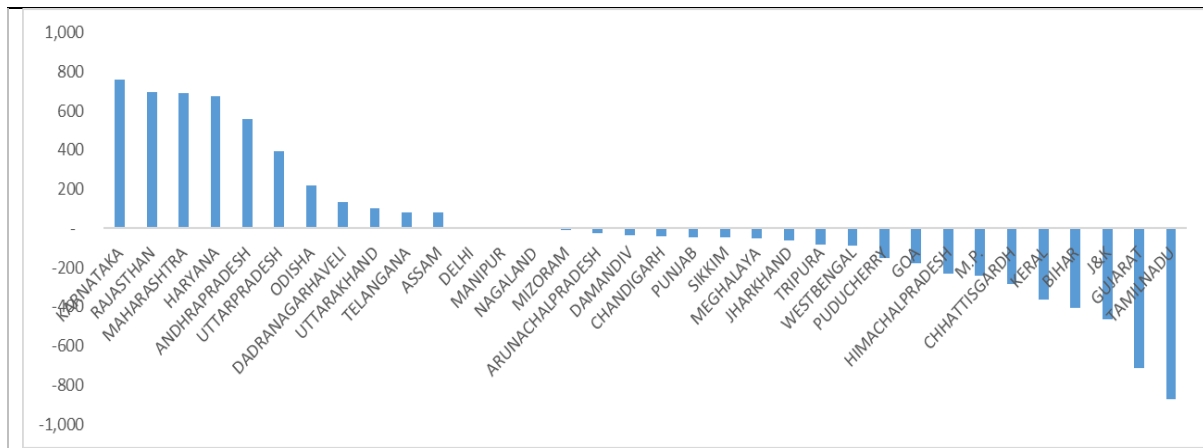


A closer look at the analysis of the results across months reveals the following insights:-

- 1) The pooled tariff for FY 2019-20 varies from a minimum of Rs 3.993 / kWh to Rs 4.581 / kWh
- 2) The pooled tariff is higher during the months where the scheduled generation from all ISGS is relatively lower and vice-versa
- 3) The pooled tariff is higher in months where the proportion of overall hydro-generation in the overall generation mix of the selected ISGS is comparatively lower. This is because hydro being a cheaper generation sources has the effect of lowering the overall pooled tariff.
- 4) Transmission pooled tariff varies from a minimum of Rs 0.66 / kWh in May-19 to a high of Rs 0.82 / kWh in Nov-19. This is primarily because of the fact that lesser energy is scheduled in the months from Oct-19 to Mar-20 as against Apr-19 to Sep-19. As such, the transmission cost per unit of scheduled energy is higher in the later half of the year.

Following is the distribution of overall benefits / losses accruing to each of the states if they would have had to pay as per the pooled VC, FC and TC:





Following is the summary of overall benefits / gains from this mechanism as compared with the existing mechanism for the entire year of 2019-20:

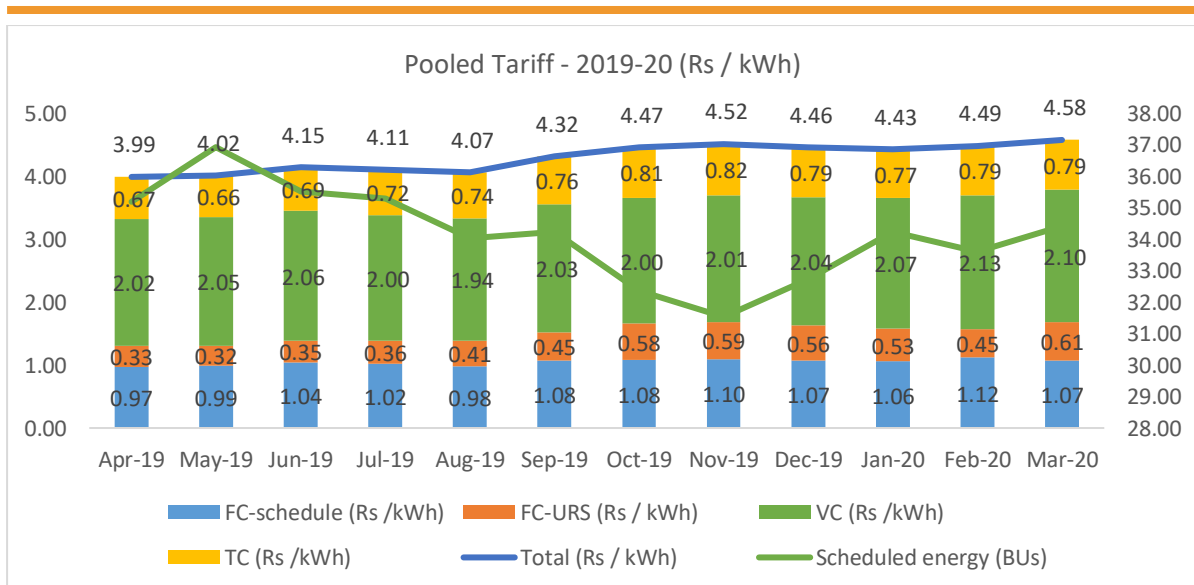
DISCOM	SCHEDULED ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs Thousand CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs Thousand CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs Thousand CRORE	%
ANDHRA PRADESH	14685	2.27	4.14	1.66	8.07	2.23	3.00	1.11	6.33	1.74	22%
ARUNACHAL PRADESH	852	0.15	0.17	0.04	0.37	0.13	0.17	0.06	0.36	0.01	2%
ASSAM	7272	1.39	1.63	0.62	3.65	1.09	1.48	0.54	3.11	0.54	15%
BIHAR	21401	4.09	5.04	1.20	10.33	3.24	4.36	1.61	9.21	1.12	11%
CHANDIGARH	1264	0.20	0.24	0.05	0.49	0.19	0.26	0.09	0.54	-0.05	-9%
CHHATTISGARH	9988	1.95	1.81	0.47	4.23	1.52	2.04	0.75	4.31	-0.08	-2%
DADRANAGARHVELI	4272	0.97	0.87	0.45	2.29	0.64	0.87	0.32	1.83	0.46	20%
DAMAN & DIU	2004	0.44	0.45	0.12	1.01	0.30	0.41	0.15	0.86	0.15	15%
DELHI	19102	3.13	4.43	1.42	8.99	2.84	3.89	1.42	8.15	0.84	9%
GOA	3775	0.45	0.67	0.10	1.22	0.57	0.77	0.28	1.62	-0.40	-33%
GUJARAT	38091	5.12	6.92	2.15	14.19	5.76	7.77	2.86	16.40	-2.20	-16%
HARYANA	15655	1.91	3.02	1.85	6.78	2.37	3.19	1.18	6.73	0.05	1%
HIMACHAL PRADESH	7101	1.13	1.05	0.29	2.47	1.04	1.44	0.52	2.99	-0.53	-21%
J&K	12852	1.61	2.38	0.49	4.49	1.93	2.62	0.96	5.51	-1.03	-23%
JHARKHAND	3627	0.57	0.79	0.21	1.57	0.55	0.74	0.27	1.56	0.01	1%
KARNATAKA	18775	4.08	4.78	2.16	11.02	2.82	3.84	1.40	8.06	2.96	27%
KERALA	10470	1.27	2.56	0.42	4.25	1.58	2.14	0.78	4.50	-0.25	-6%
M.P.	34127	4.42	5.19	2.32	11.93	5.15	6.96	2.56	14.68	-2.74	-23%
MAHARASHTRA	40125	6.54	7.18	3.70	17.42	6.06	8.19	3.01	17.25	0.16	1%
MANIPUR	840	0.21	0.16	0.06	0.44	0.12	0.17	0.06	0.36	0.08	18%
MEGHALAYA	1683	0.31	0.37	0.07	0.75	0.25	0.34	0.13	0.72	0.03	4%
MIZORAM	614	0.15	0.13	0.04	0.32	0.09	0.13	0.05	0.26	0.06	19%
NAGALAND	765	0.15	0.17	0.06	0.38	0.11	0.16	0.06	0.33	0.05	13%
ODISHA	6318	0.86	1.31	0.68	2.86	0.94	1.29	0.47	2.69	0.17	6%
PUDUCHERRY	2971	0.39	0.73	0.07	1.19	0.45	0.61	0.22	1.27	-0.08	-7%
PUNJAB	18638	1.72	2.97	1.35	6.04	2.80	3.80	1.39	8.00	-1.96	-32%
RAJASTHAN	19115	2.31	3.25	2.12	7.69	2.88	3.90	1.43	8.20	-0.52	-7%

DISCOM	SCHEDULED ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs Thousand CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs Thousand CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs Thousand CRORE	%
SIKKIM	888	0.14	0.17	0.02	0.32	0.13	0.18	0.07	0.38	-0.06	-17%
TAMILNADU	28469	4.80	7.36	1.27	13.42	4.31	5.81	2.14	12.25	1.17	9%
TELANGANA	13475	2.10	3.66	1.10	6.85	2.04	2.76	1.01	5.81	1.04	15%
TRIPURA	1724	0.32	0.29	0.04	0.65	0.26	0.35	0.13	0.73	-0.08	-12%
UTTAR PRADESH	37179	5.04	7.20	3.17	15.41	5.56	7.57	2.77	15.90	-0.49	-3%
UTTARAKHAND	5447	0.75	1.03	0.51	2.29	0.81	1.11	0.41	2.33	-0.04	-2%
WEST BENGAL	6589	0.79	1.52	0.41	2.72	0.99	1.34	0.49	2.83	-0.11	-4%
TOTAL	410156	62	84	31	177	62	84	31	177		

Details on pooled tariff for each month of FY 2019-20 and associated benefits / losses to each of the states is provided in detail in the Annexure 2.

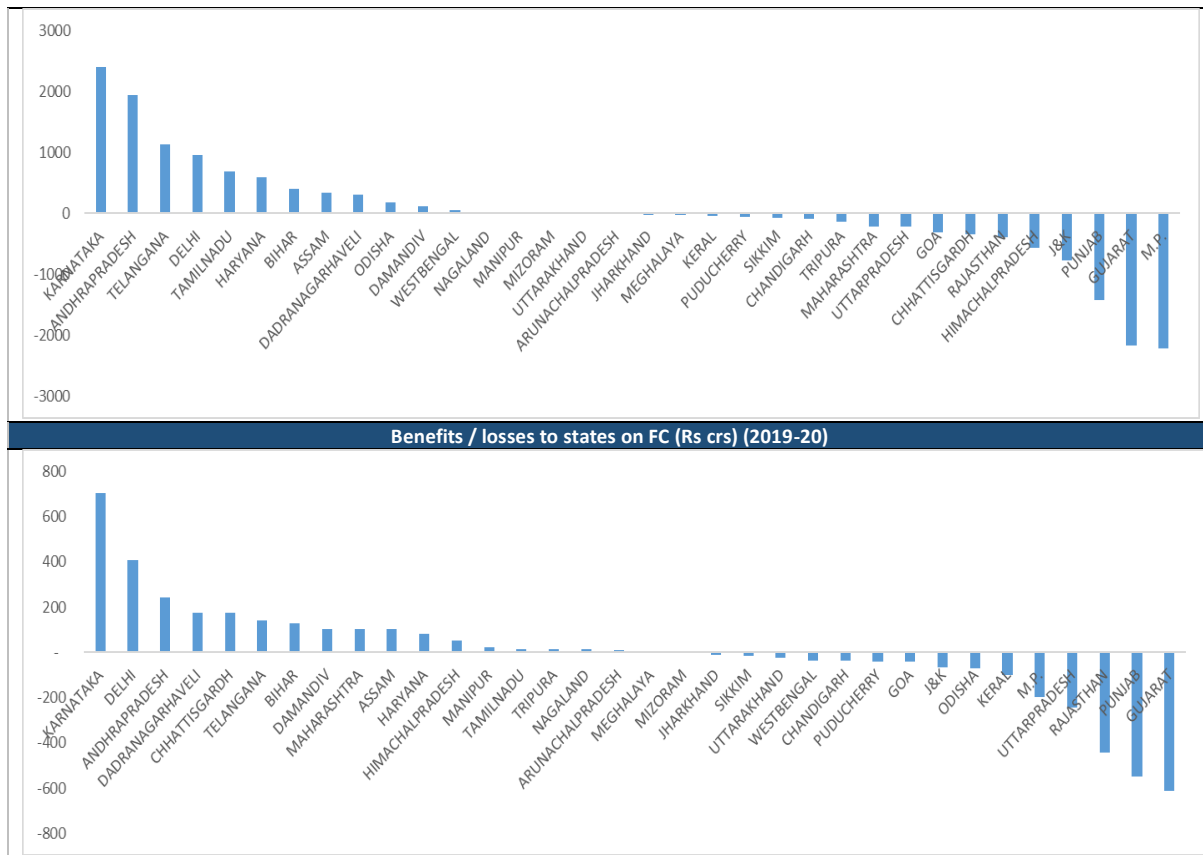
Methodology 2: Pooled tariff based on FC payout segregated into scheduled and URS components for the states.

The overall pooled tariff for each of the months remains the same, however, the pooled FC can be designated into two components i.e. pooled FC as per scheduled energy and pooled FC as per URS.



Following is the distribution of overall benefits / losses accruing to each of the states if they would have had to pay as per the pooled FC. The benefits / losses on the pooled VC and TC would remain the same:-

Benefits / losses to states for full year (Rs crs) (2019-20)



It can be observed that there is significant reduction of benefits as well as losses if FC pooling is done as per the alternate methodology i.e. if URS component of generators is pooled as per overall entitlement ratios of each of the states in the overall ISGS fleet.

Following is the summary of overall benefits / gains from the alternate mechanism for the entire year of 2019-20:

DISCOM	SCHEDULED ENERGY (MU's)	BEFORE_POOLED_TARIFF_SCHEME (Rs Thousand CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs Thousand CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs Thousand CRORE	%
ANDHRA PRADESH	14685	2.27	4.14	1.66	8.07	2.02	3.00	1.11	6.33	1.95	24%
ARUNACHAL PRADESH	852	0.15	0.17	0.04	0.37	0.14	0.17	0.06	0.36	-0.01	-3%
ASSAM	7272	1.39	1.63	0.62	3.65	1.29	1.48	0.54	3.11	0.34	9%
BIHAR	21401	4.09	5.04	1.20	10.33	3.96	4.36	1.61	9.21	0.40	4%
CHANDIGARH	1264	0.20	0.24	0.05	0.49	0.24	0.26	0.09	0.54	-0.10	-20%
CHHATTISGARH	9988	1.95	1.81	0.47	4.23	1.77	2.04	0.75	4.31	-0.34	-8%
DADRANAGARHVELI	4272	0.97	0.87	0.45	2.29	0.79	0.87	0.32	1.83	0.31	13%
DAMAN & DIU	2004	0.44	0.45	0.12	1.01	0.34	0.41	0.15	0.86	0.11	11%
DELHI	19102	3.13	4.43	1.42	8.99	2.73	3.89	1.42	8.15	0.95	11%
GOA	3775	0.45	0.67	0.10	1.22	0.49	0.77	0.28	1.62	-0.32	-26%
GUJARAT	38091	5.12	6.92	2.15	14.19	5.73	7.77	2.86	16.40	-2.17	-15%
HARYANA	15655	1.91	3.02	1.85	6.78	1.83	3.19	1.18	6.73	0.59	9%
HIMACHAL PRADESH	7101	1.13	1.05	0.29	2.47	1.08	1.44	0.52	2.99	-0.57	-23%
J&K	12852	1.61	2.38	0.49	4.49	1.68	2.62	0.96	5.51	-0.78	-17%

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs Thousand CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs Thousand CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs Thousand CRORE	%
JHARKHAND	3627	0.57	0.79	0.21	1.57	0.58	0.74	0.27	1.56	-0.02	-1%
KARNATAKA	18775	4.08	4.78	2.16	11.02	3.38	3.84	1.40	8.06	2.40	22%
KERAL	10470	1.27	2.56	0.42	4.25	1.37	2.14	0.78	4.50	-0.04	-1%
M.P.	34127	4.42	5.19	2.32	11.93	4.62	6.96	2.56	14.68	-2.21	-19%
MAHARASHTRA	40125	6.54	7.18	3.70	17.42	6.44	8.19	3.01	17.25	-0.22	-1%
MANIPUR	840	0.21	0.16	0.06	0.44	0.19	0.17	0.06	0.36	0.01	3%
MEGHALAYA	1683	0.31	0.37	0.07	0.75	0.31	0.34	0.13	0.72	-0.03	-4%
MIZORAM	614	0.15	0.13	0.04	0.32	0.15	0.13	0.05	0.26	0.00	0%
NAGALAND	765	0.15	0.17	0.06	0.38	0.14	0.16	0.06	0.33	0.02	6%
ODISHA	6318	0.86	1.31	0.68	2.86	0.93	1.29	0.47	2.69	0.17	6%
PUDUCHERRY	2971	0.39	0.73	0.07	1.19	0.43	0.61	0.22	1.27	-0.07	-5%
PUNJAB	18638	1.72	2.97	1.35	6.04	2.27	3.80	1.39	8.00	-1.43	-24%
RAJASTHAN	19115	2.31	3.25	2.12	7.69	2.75	3.90	1.43	8.20	-0.39	-5%
SIKKIM	888	0.14	0.17	0.02	0.32	0.15	0.18	0.07	0.38	-0.08	-24%
TAMILNADU	28469	4.80	7.36	1.27	13.42	4.79	5.81	2.14	12.25	0.69	5%
TELANGANA	13475	2.10	3.66	1.10	6.85	1.95	2.76	1.01	5.81	1.13	16%
TRIPURA	1724	0.32	0.29	0.04	0.65	0.31	0.35	0.13	0.73	-0.13	-21%
UTTAR PRADESH	37179	5.04	7.20	3.17	15.41	5.29	7.57	2.77	15.90	-0.22	-1%
UTTARAKHAND	5447	0.75	1.03	0.51	2.29	0.78	1.11	0.41	2.33	-0.00	0%
WEST BENGAL	6589	0.79	1.52	0.41	2.72	0.83	1.34	0.49	2.83	0.05	2%
TOTAL	410156	62	84	31	177	62	84	31	177		

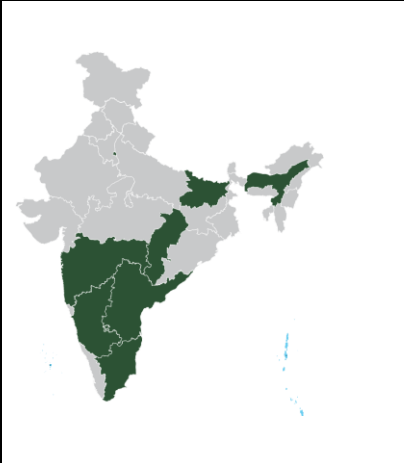
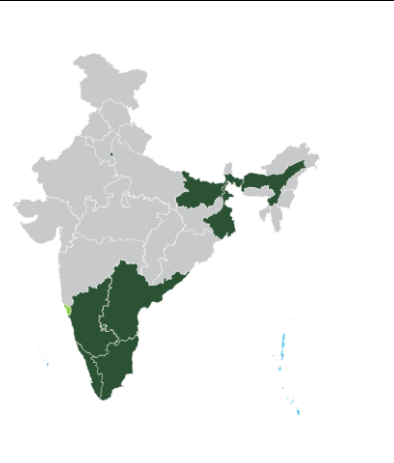
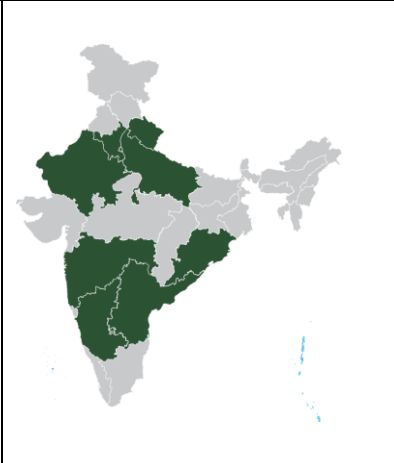
Chapter four

Analysis of the Impact of Pooled Common Tariff

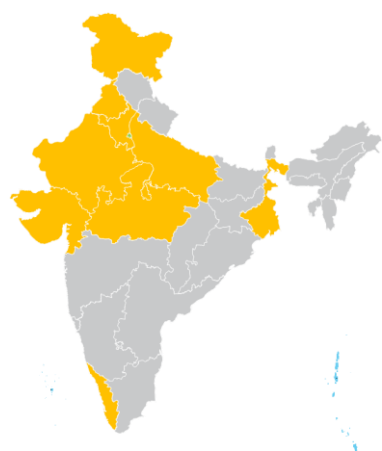
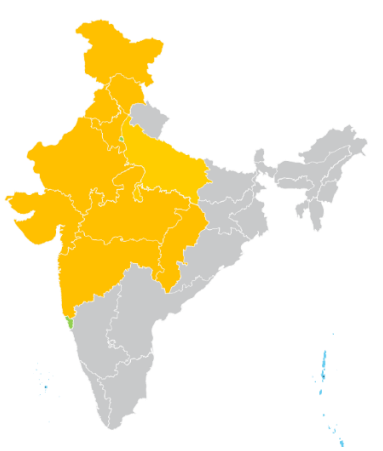
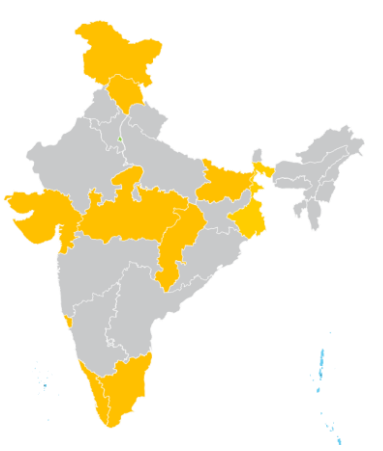
As can be clearly observed there are some states whose power procurement cost would go down and some states where the power procurement cost would go up. Following sections have highlighted the major winners and losers and an analysis of the key reasons for the same in greater detail.

4.1. Major gainers if payout is as per pooled tariff mechanism

Based on the present state of entitlements and scheduling pattern, it is expected that the following states would be the primary gainers if the payout from beneficiaries is supposed to be through the pooled common tariff in the country:

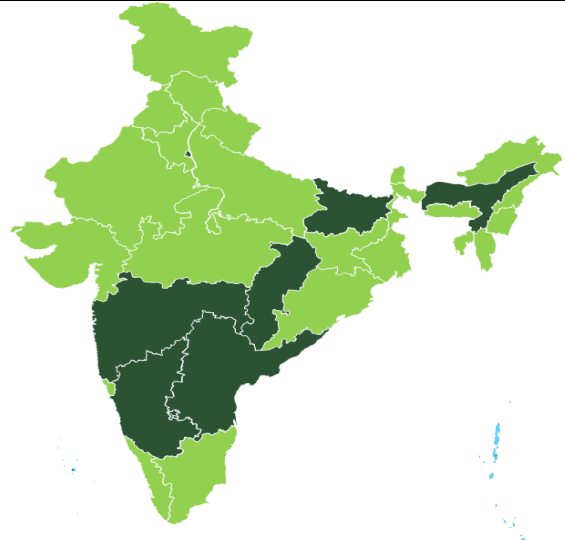
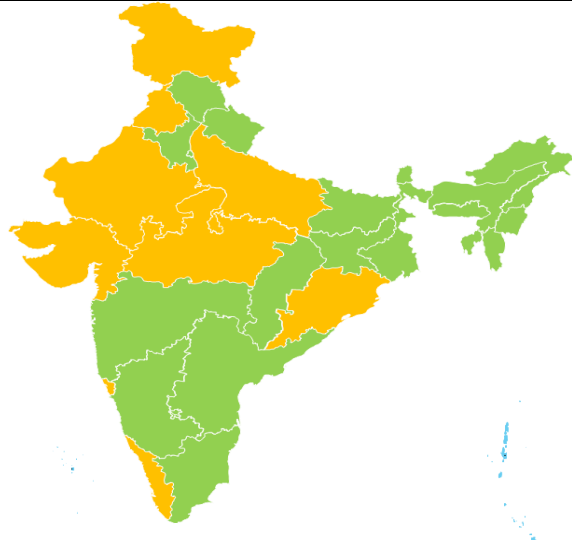
Gainers on fixed cost payout	Gainers on variable cost payout	Gainers on transmission charges payout
		
States		
• Karnataka • Bihar • Maharashtra • Tamil Nadu • Chhattisgarh • Delhi • Dadra & Nagar Haveli • Assam • Daman & Diu • Telangana	• Tamil Nadu • Andhra Pradesh • Karnataka • Telangana • Bihar • Delhi • Kerala • West Bengal • Assam • Puducherry	• Karnataka • Maharashtra • Andhra Pradesh • Rajasthan • Haryana • Uttar Pradesh • Odisha • Dadra & Nagar Haveli • Uttarakhand • Telangana
Region		
SR, ER	SR, ER	SR, NR

4.2. Major losers if payout is as per pooled tariff mechanism

On fixed cost	On variable cost	On transmission charges
		
States		
• Punjab • Rajasthan • Haryana • M.P. • Gujarat • Uttar Pradesh • J&K • Kerala • Westbengal • Chandigarh	• M.P. • Punjab • Rajasthan • Maharashtra • Haryana • Gujarat • Himachal Pradesh • Chandigarh • Chhattisgarh • J&K • UP	• Tamilnadu • Gujarat • J&K • Bihar • Kerala • Punjab • Himachal Pradesh • Chhattisgarh • Goa • M.P.
Region		
WR, NR, ER	WR, NR	WR, NR, ER, SR

4.3. Major gainers and losers if payout is as per alternate mechanism of FC pooling

In case the pooling of FC is carried out as per the alternate methodology (existing FC paid segregated into schedule and URS component), following are the major gainers and losers:

Major gainers	Major losers
	
• Andhra Pradesh • Assam • Bihar • Chattisgarh • Daman Diu • Dadra and Nagar Haveli • Delhi • Karnataka • Maharashtra • Telangana	• Gujarat • J&K • Kerala • Madhya Pradesh • Odisha • Punjab • Rajasthan • Uttar Pradesh
SR, ER	WR, NR

4.4. Analysis of entitlement and scheduling data for states

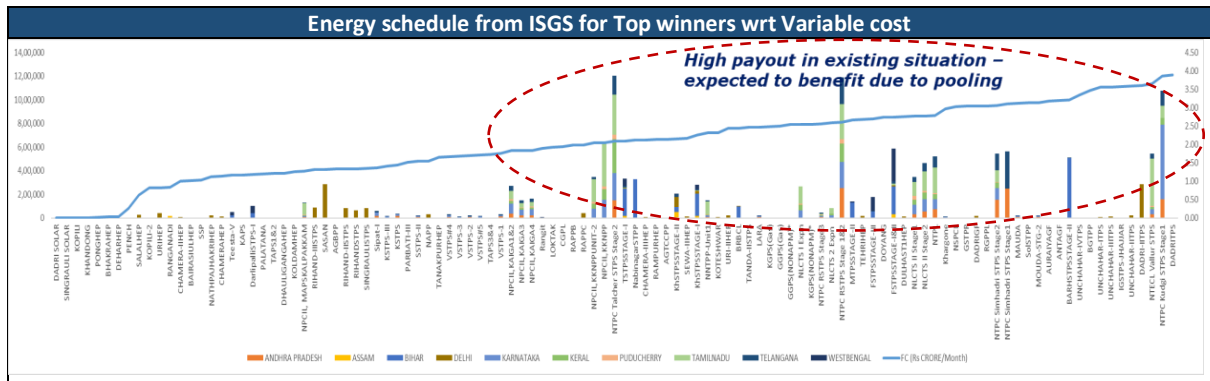
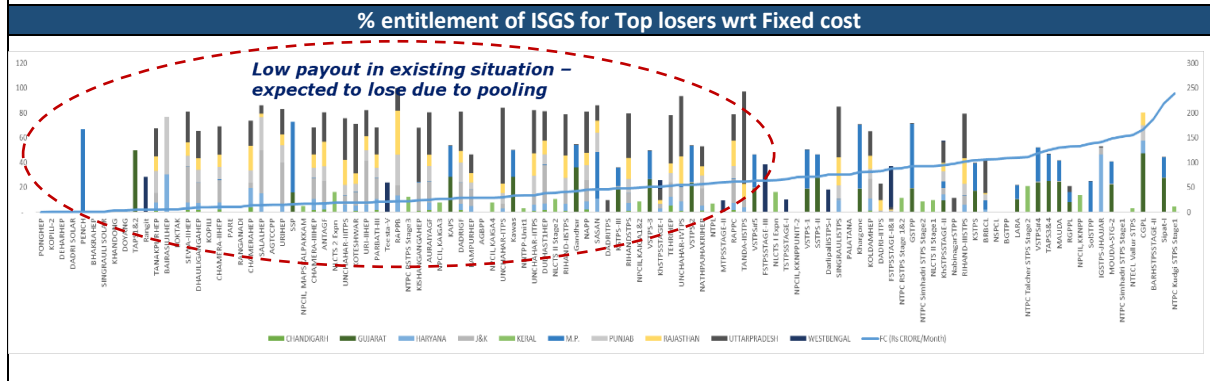
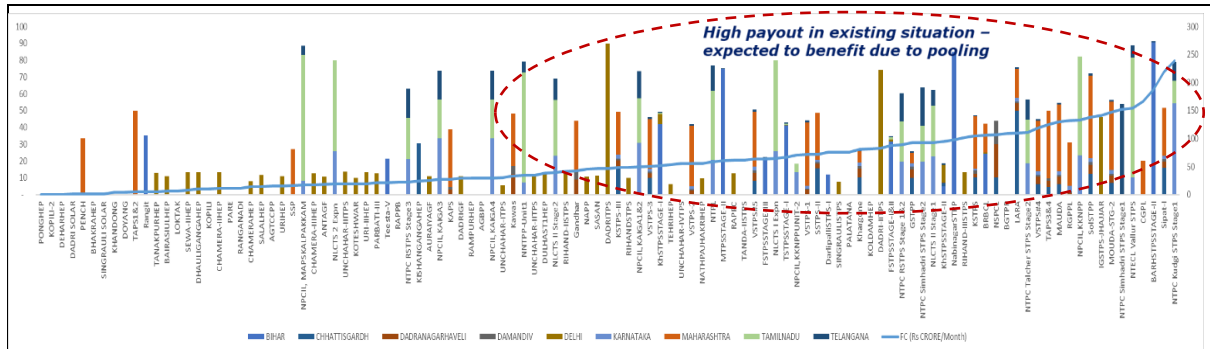
To understand the reasons as to why some states are incurring higher or lower procurement costs due to the effect of the proposed pooled common tariff, we have looked closely at the allocation / entitlements of each of the states from the concerned ISGS stations as well as pattern of scheduled energy during different months / seasons. In addition to the same, we have also reviewed the approved LTA / MTOA withdrawal charges payable by such states.

1) Entitlement and scheduling data

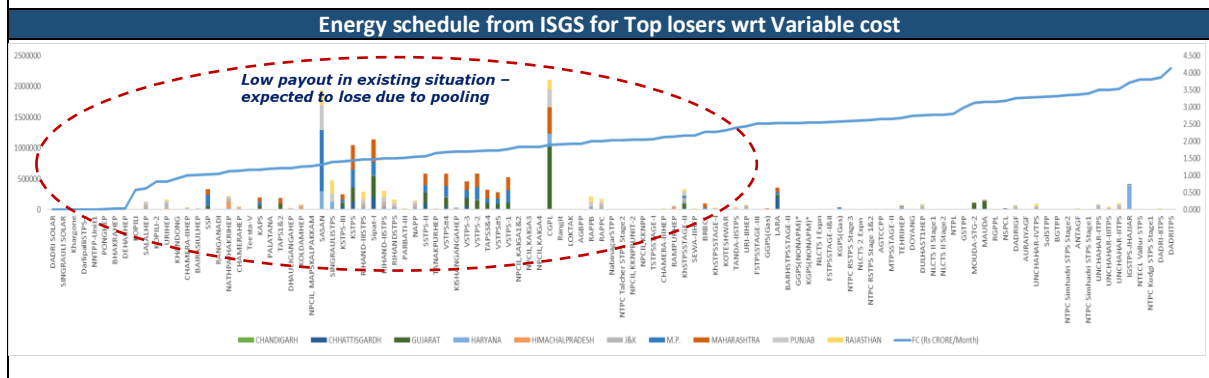
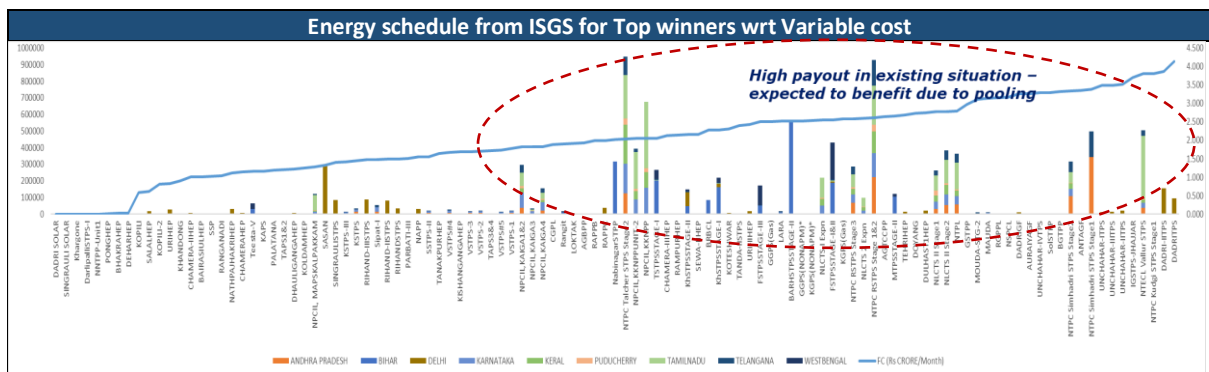
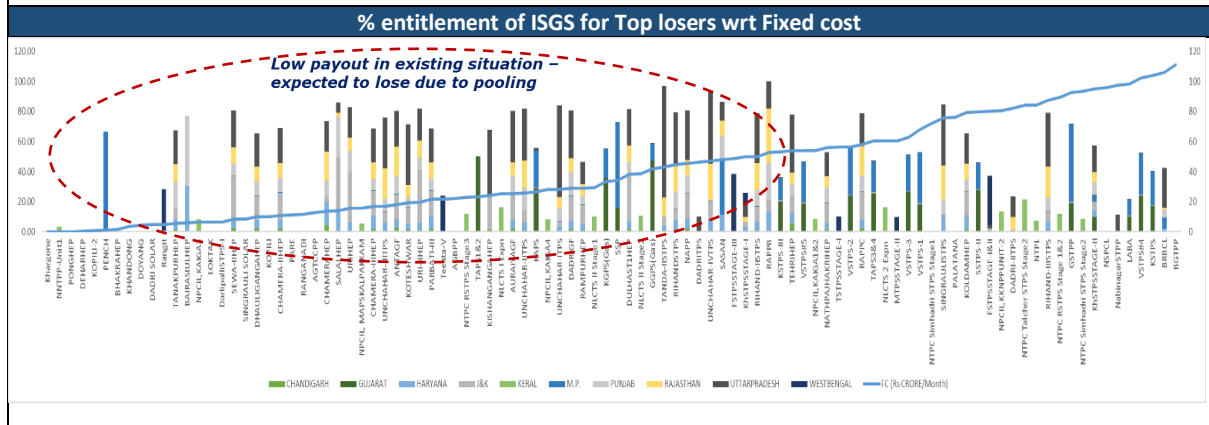
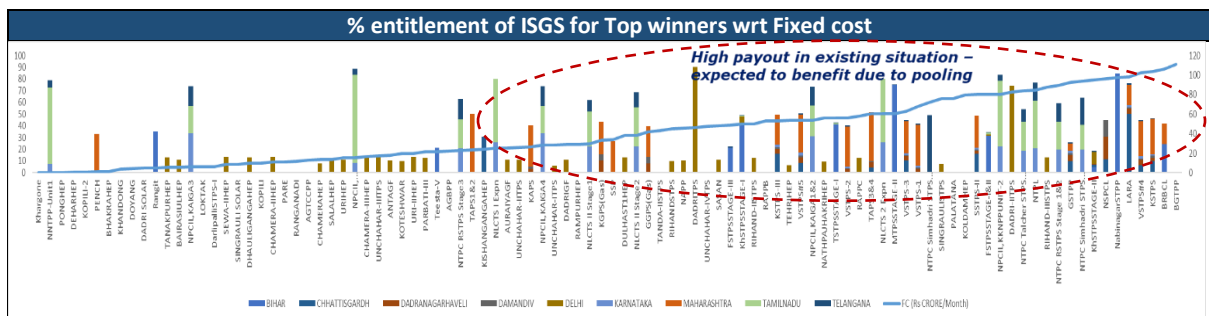
To understand the entitlement and scheduling pattern of various states, we have considered the top 10 winners and losers and have illustrated the % entitlements from various ISGS stations arranged in the increasing order of Fixed costs as well as total energy scheduled from various ISGS stations in the increasing order of variable costs for various months / season of the year (July, November and March) as shown below:-

a. Analysis for July, 2019

% entitlement of ISGS for Top winners wrt Fixed cost

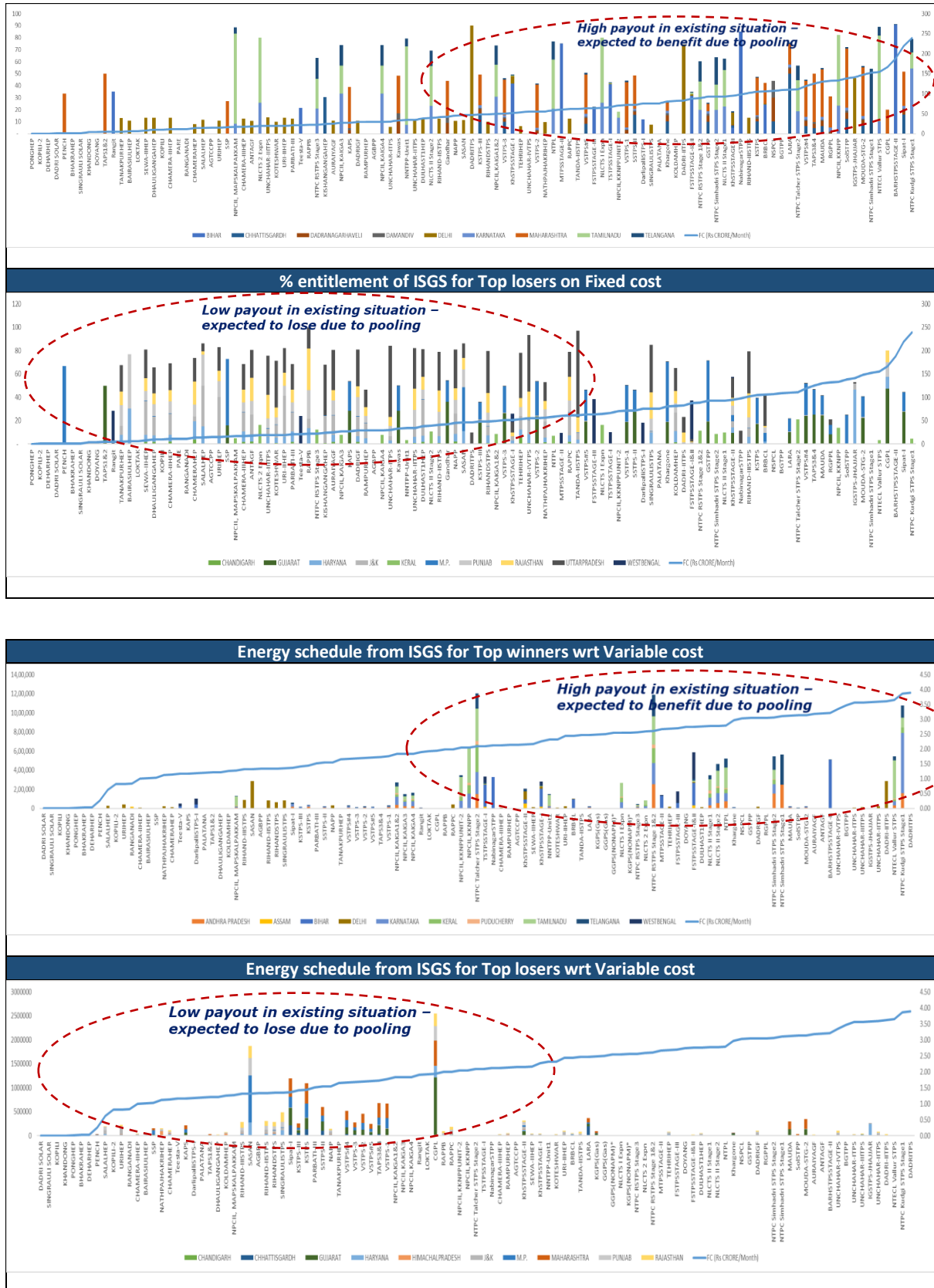


b. Analysis for Nov-19



c. Analysis for Mar-20

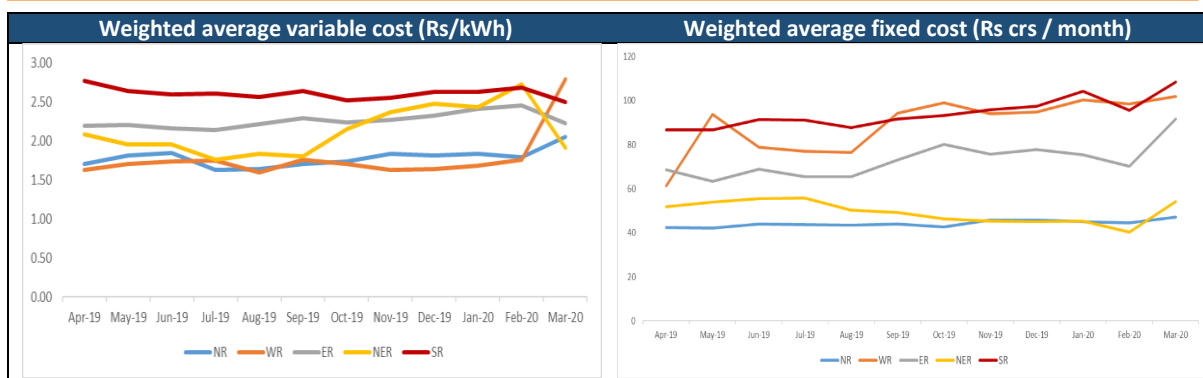
% entitlement of ISGS for Top winners on Fixed cost



By analysing the above graphs, following conclusions are being made:-

- 1) States in the southern region comprising of Karnataka, Kerala, Andhra Pradesh, Tamil Nadu, Kerala and few other states have been allocated shares from costlier NTPC plants.
- 2) The ISGS plants tied up with such states fall higher up the merit order list and hence the existing power purchase cost of such states are on the higher side. In the case of pooled tariff mechanism, such states / discoms would stand to gain and have a possibility of lowering their power purchase costs.
- 3) On the other hand, states in the Western region and Northern region are allocated shares of ISGS plants which are relatively cheaper or fall in the middle of the national merit order and such the existing FC payout if lesser than what would have been in the case of pooled tariff mechanism.
- 4) The variable costs incurred by such states are also lower since they receive energy from such relatively cheaper ISGS plants.
- 5) Since the entitlements as well as scheduling pattern is majorly consistent throughout the year as a result of the nature of tied-up PPAs with these states, these results are the major gainers / losers across all months of the year.

In addition to the above, following is an overview of the weighted average fixed cost (Rs crs / month) as well as weighted average variable cost (Rs / kWh) payable across the regions:



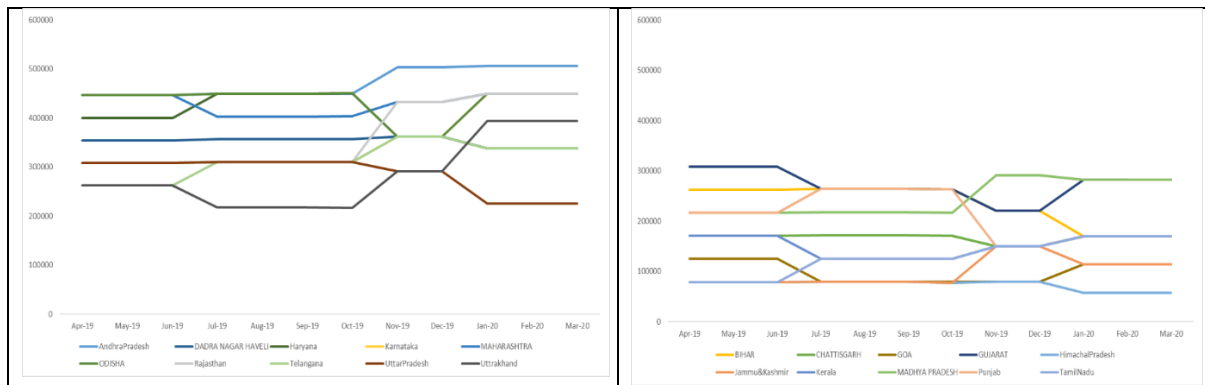
The above graphs clearly highlight that the regions have a dominance of a specific type of cost structure of ISGS stations which would lead to natural gains / losses as described below:-

Region	Inference
Northern Region (NR)	Would lose out on variable cost as well as fixed cost
Western Region (WR)	Would lose out on variable cost
Eastern Region (ER)	Would gain on variable cost
Southern Region (SR)	Would gain out on variable cost as well as fixed cost

2) Transmission charges

Following is the overview of the approved Point-of-Connection charges (Rs/MW/month) for each of the states and grouped by whether they are gaining or losing due to the pooling of transmission costs:-

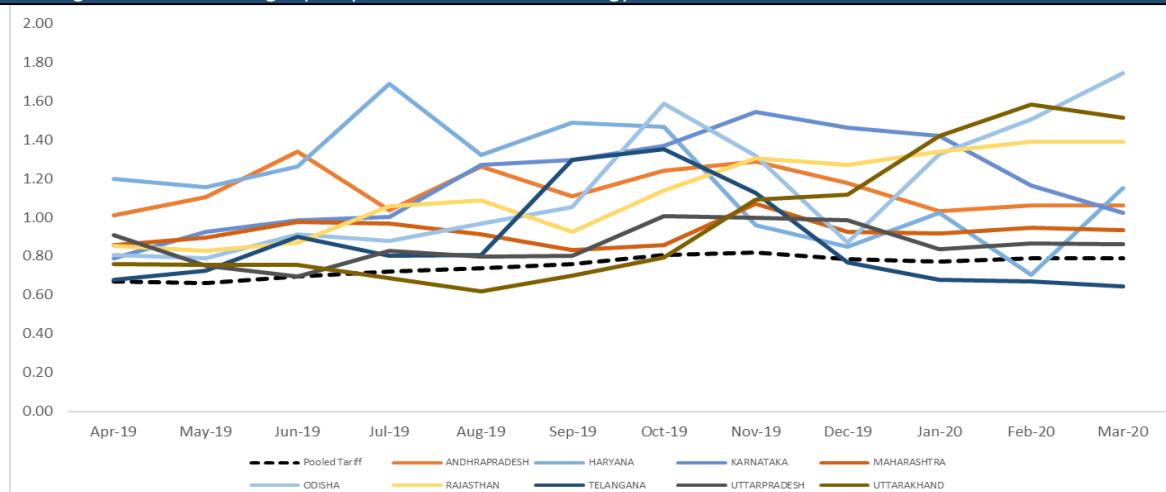
States gaining due to pooling of Transmission cost – Existing PoC charge rate (Rs / MW /month)	States losing due to pooling of Transmission cost Existing PoC charge rate (Rs / MW /month)
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Below is a comparison of the actual transmission charges paid per unit of scheduled energy in the existing mechanism and the pooled transmission tariff for the states who are the major gainers and losers with respect to pooled transmission cost mechanism:

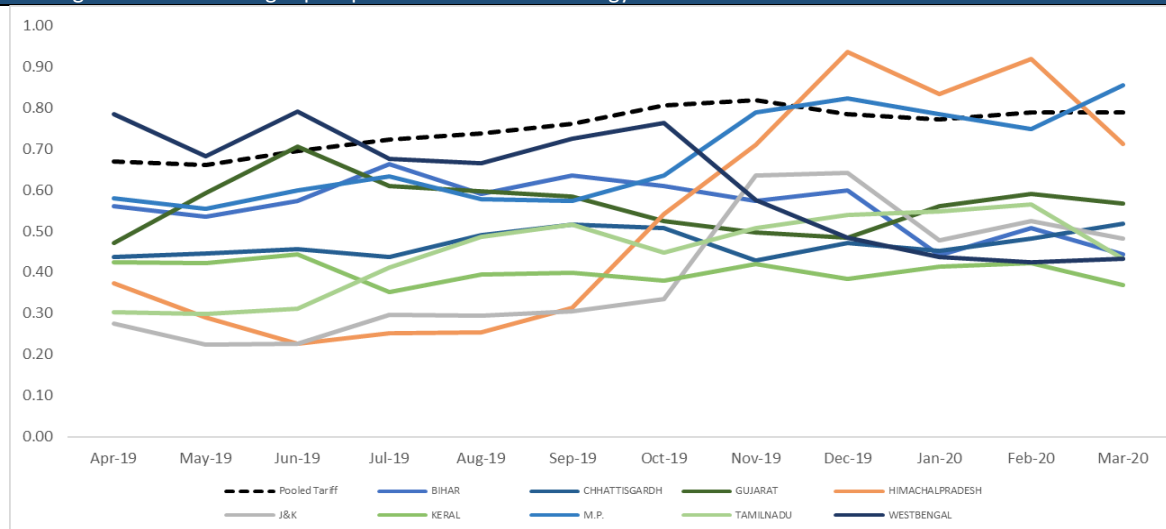
States gaining due to pooling of Transmission cost –

Existing Transmission charges paid per unit of scheduled energy vs Pooled transmission tariff



States losing due to pooling of Transmission cost –

Existing Transmission charges paid per unit of scheduled energy vs Pooled transmission tariff



Dotted line represents the trend of pooled transmission tariff (Rs/kWh) across months

It is evident from the analysis that states losing out in the pooled tariff scheme have lower approved PoC rates. These states are paying relatively lower transmission charges per unit of scheduled energy.

Chapter five

Impact of Demand variations and New Capacity

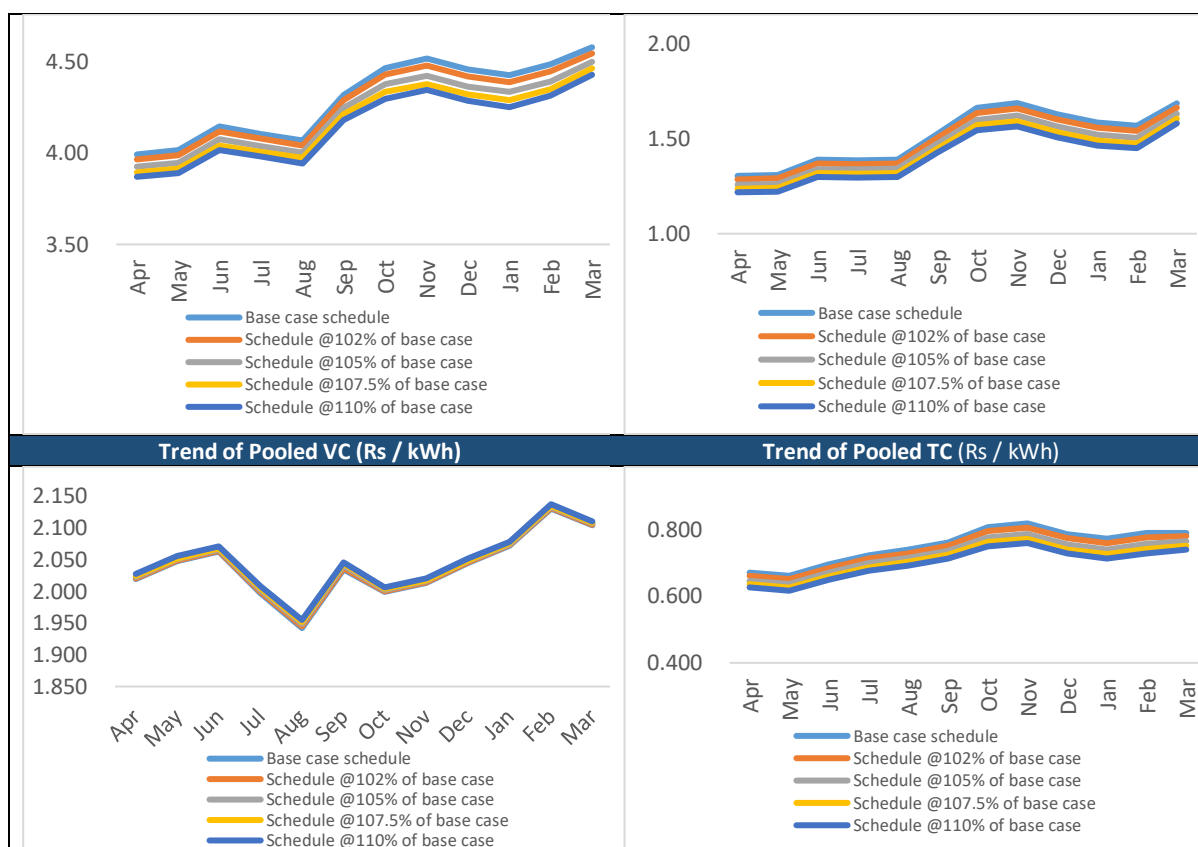
5.1 Impact of increase in energy scheduled from ISGS on pooled tariff

A sensitivity analysis was also carried out to understand the impact of increase in demand / energy scheduled from ISGS on the month-wise pooled common tariff. The same data for FY 2019-20 was considered and energy scheduled from ISGS was increased at various escalation rates varying from 2% to 10%. In doing the same, the generator wise available URS power was considered for each month which would determine the maximum increase in energy schedule possible from that corresponding generator.

Following is the variation in month-wise pooled tariff with different levels of growth in energy scheduled from ISGS:

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
At the base energy schedule for 2019-20												
FC_POOLED (Rs/kWh)	1.305	1.310	1.390	1.387	1.389	1.525	1.661	1.688	1.629	1.585	1.568	1.687
VC_POOLED (Rs/kWh)	2.019	2.047	2.062	1.997	1.942	2.034	1.999	2.014	2.044	2.072	2.130	2.104
TC_POOLED (Rs/kWh)	0.670	0.661	0.694	0.723	0.738	0.761	0.806	0.818	0.786	0.771	0.788	0.790
FC_VC_TC_POOLED (Rs/kWh)	3.993	4.018	4.146	4.106	4.069	4.320	4.466	4.519	4.459	4.428	4.487	4.581
Energy schedule increased by 2% over base case												
FC_POOLED (Rs/kWh)	1.286	1.290	1.370	1.367	1.370	1.503	1.636	1.661	1.602	1.559	1.542	1.664
VC_POOLED (Rs/kWh)	2.020	2.048	2.064	1.999	1.945	2.037	2.000	2.015	2.046	2.073	2.131	2.104
TC_POOLED (Rs/kWh)	0.660	0.651	0.684	0.713	0.728	0.751	0.794	0.805	0.773	0.758	0.775	0.778
FC_VC_TC_POOLED (Rs/kWh)	3.966	3.990	4.117	4.079	4.043	4.291	4.430	4.480	4.421	4.390	4.448	4.547
Energy schedule increased by 5% over base case												
FC_POOLED (Rs/kWh)	1.258	1.262	1.341	1.339	1.342	1.473	1.600	1.622	1.564	1.521	1.504	1.631
VC_POOLED (Rs/kWh)	2.022	2.050	2.065	2.002	1.948	2.040	2.002	2.016	2.047	2.074	2.133	2.106
TC_POOLED (Rs/kWh)	0.646	0.636	0.670	0.698	0.714	0.735	0.776	0.786	0.754	0.740	0.756	0.763
FC_VC_TC_POOLED (Rs/kWh)	3.927	3.948	4.076	4.039	4.004	4.248	4.378	4.424	4.366	4.335	4.393	4.501
Energy schedule increased by 7.5% over base case												
FC_POOLED (Rs/kWh)	1.236	1.240	1.318	1.316	1.320	1.448	1.571	1.592	1.534	1.491	1.475	1.606
VC_POOLED (Rs/kWh)	2.024	2.052	2.067	2.005	1.952	2.043	2.004	2.017	2.049	2.075	2.134	2.108
TC_POOLED (Rs/kWh)	0.635	0.625	0.658	0.686	0.702	0.723	0.762	0.771	0.740	0.725	0.741	0.751
FC_VC_TC_POOLED (Rs/kWh)	3.895	3.917	4.043	4.008	3.973	4.214	4.337	4.380	4.322	4.292	4.351	4.465
Energy schedule increased by 10% over base case												
FC_POOLED (Rs/kWh)	1.218	1.222	1.298	1.296	1.299	1.425	1.544	1.566	1.507	1.464	1.449	1.581
VC_POOLED (Rs/kWh)	2.027	2.055	2.070	2.008	1.955	2.046	2.006	2.020	2.051	2.077	2.137	2.110
TC_POOLED (Rs/kWh)	0.625	0.616	0.649	0.676	0.691	0.712	0.749	0.759	0.727	0.712	0.728	0.740
FC_VC_TC_POOLED (Rs/kWh)	3.871	3.892	4.017	3.980	3.944	4.183	4.300	4.345	4.286	4.254	4.314	4.430

Trend of Overall pooled tariff (Rs / kWh)	Trend of Pooled FC (Rs / kWh)
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With increase in energy scheduled from ISGS, the pooled FC and TC tends to reduce since the overall payout of FC and TC per unit reduces. However, due to increase in scheduled energy, the pooled VC increases marginally due to increased payout by the states.

5.2. Impact of new capacity additions on pooled tariff

An additional analysis was undertaken to understand how the pooled tariff for the future years (2021-22 and 2022-23) would vary with the growth in energy scheduled from ISGS stations and commissioning of new generating stations by NTPC Ltd. For this following additional data was considered:-

1) Details on new capacity additions by NTPC

Following are the additional new capacities considered:-

Generating station	Capacity (MW)	Date of commissioning
Lara Unit-2	800	Dec 2020
Meja Unit-2	660	Dec 2020
Barh Unit-1	660	Dec 2020
NPGCL Unit-1	660	Dec 2020
Darlipalli Unit-2	800	Dec 2020
North Karanpura Unit-1	660	June 2021
Barh Unit -2	660	June 2021
NPGCL Unit-3	660	June 2021
Telangana Unit -1	800	June 2021
North Karanpura Unit-2	660	Sep 2021
Telangana Unit -2	800	Sep 2021
Barh Unit -3	660	Dec 2021
North Karanpura Unit-3	660	April 2022
Patratu Unit-1	800	April 2022
Patratu Unit-2	800	Sep 2022
Patratu Unit-3	800	March 2023

2) Demand growth / energy scheduled by ISGS

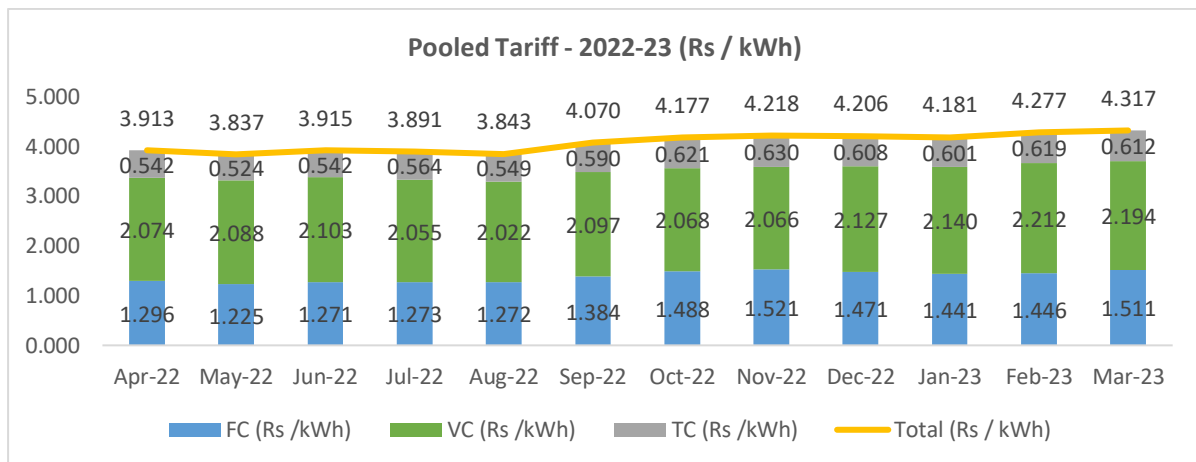
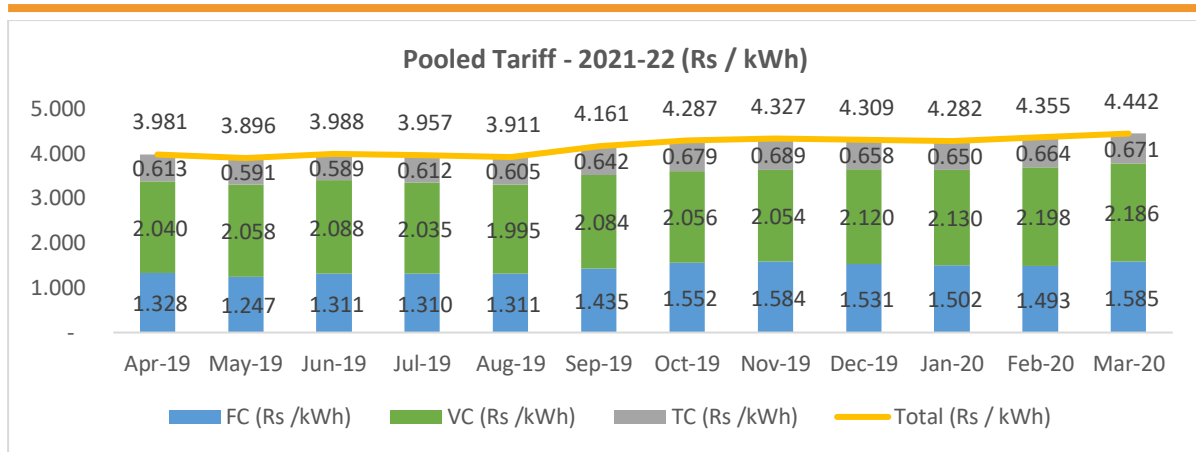
- The growth in energy scheduled from ISGS in 2021-22 and 2022-23 from the base year of 2019-20 is considered as 5% and 12% respectively. Although 19th EPS estimates the peak demand / energy in 2021-22 and 2022-23 to grow by 12% and 18% respectively from 2019-20, however we have considered reduced growth rates to account for impact of Covid on the energy / peak demand in the future.
- However, we have also considered the entitlement of each of the beneficiaries from each ISGS and the total energy scheduled by them from such ISGS in a month in 2019-20
- The projected energy scheduled by each beneficiary in a month for the years 2021-22 and 2022-23 from each ISGS was escalated from 2019-20 values, considering the growth rate as mentioned in step-a, subject to a ceiling of the URS available for the particular beneficiary from such ISGS i.e. difference of entitled energy and scheduled energy from such ISGS to the state.

3) Transmission charges payable by beneficiaries

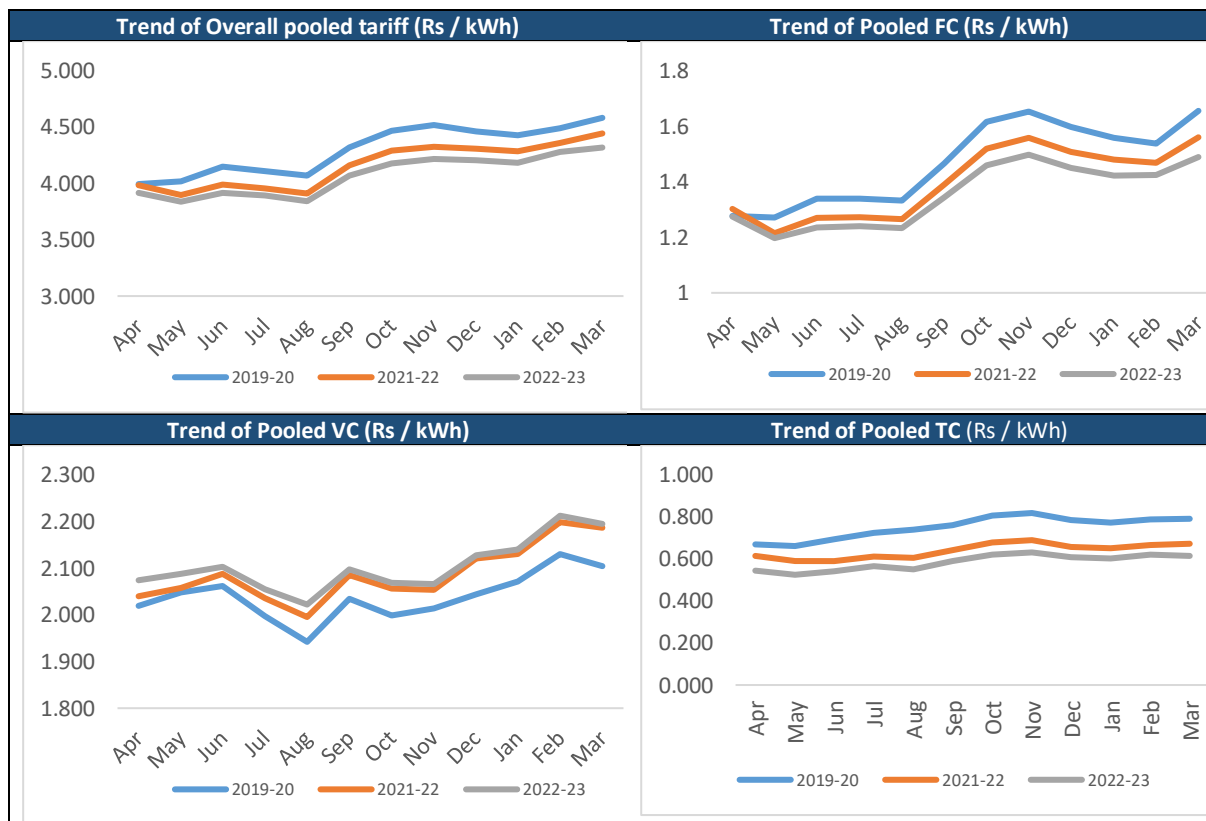
For each of the months of 2021-22 and 2022-23, additional transmission charges payable by each of the beneficiaries were considered in line with the new capacity additions of ISGS in that month along with the original transmission charges payable for the month in 2019-20

Based on the above methodology, the pooled tariff for each month of 2021-22 and 2022-23 is determined as follows:-

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
2021-22												
FC_POOLED (Rs/kWh)	1.328	1.247	1.311	1.310	1.311	1.435	1.552	1.584	1.531	1.502	1.493	1.585
VC_POOLED (Rs/kWh)	2.040	2.058	2.088	2.035	1.995	2.084	2.056	2.054	2.120	2.130	2.198	2.186
TC_POOLED (Rs/kWh)	0.613	0.591	0.589	0.612	0.605	0.642	0.679	0.689	0.658	0.650	0.664	0.671
FC_VC_TC_POOLED (Rs/kWh)	3.981	3.896	3.988	3.957	3.911	4.161	4.287	4.327	4.309	4.282	4.355	4.442
2022-23												
FC_POOLED (Rs/kWh)	1.296	1.225	1.271	1.273	1.272	1.384	1.488	1.521	1.471	1.441	1.446	1.511
VC_POOLED (Rs/kWh)	2.074	2.088	2.103	2.055	2.022	2.097	2.068	2.066	2.127	2.140	2.212	2.194
TC_POOLED (Rs/kWh)	0.542	0.524	0.542	0.564	0.549	0.590	0.621	0.630	0.608	0.601	0.619	0.612
FC_VC_TC_POOLED (Rs/kWh)	3.913	3.837	3.915	3.891	3.843	4.070	4.177	4.218	4.206	4.181	4.277	4.317



A comparison of the variation in pooled tariffs is presented as below:-



Following key inferences can be obtained regarding the variations in pooled tariff:-

1. Since there is additional generation from existing ISGS in future years, the total fixed cost payout from existing ISGS stations is now recovered from an increased consumption by the states and hence, the pooled FC per unit decreases
2. Similarly, since there is additional generation from existing ISGS in future years, the total transmission charges for the approved withdrawal quantum is now recovered from increased consumption by the states and hence, the pooled TC per unit decreases.
3. Additional variable cost payout is on account of increased consumption by states and hence the pooled VC tends to increase in the future marginally
4. Capacity additions in the future have an effect in lowering the overall pooled tariff, although marginally.

Following is the summary of overall benefits / gains from this mechanism as compared with the existing mechanism for the entire year of 2021-22:

DISCOM	SCHEDULED ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs Thousand CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs Thousand CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs Thousand CRORE	%
ANDHRA PRADESH	15913	2.33	4.48	1.69	8.51	2.29	3.33	1.02	6.64	1.87	22%
ARUNACHALPRADESH	872	0.15	0.18	0.04	0.37	0.12	0.18	0.06	0.36	0.01	4%
ASSAM	7537	1.39	1.70	0.62	3.71	1.07	1.57	0.48	3.11	0.60	16%
BIHAR	45201	7.72	10.60	1.30	19.62	6.51	9.45	2.89	18.84	0.77	4%
CHANDIGARH	1356	0.21	0.26	0.05	0.52	0.19	0.28	0.09	0.56	-0.04	-7%
CHHATTISGARH	15318	2.42	3.09	0.50	6.02	2.19	3.20	0.98	6.36	-0.35	-6%
DADRANAGARHAWALI	4906	1.02	1.02	0.47	2.50	0.70	1.02	0.31	2.03	0.47	19%
DAMAN & DIU	2209	0.45	0.50	0.12	1.07	0.31	0.46	0.14	0.92	0.15	14%
DELHI	19843	3.13	4.62	1.42	9.17	2.80	4.13	1.26	8.19	0.99	11%
GOA	4069	0.46	0.73	0.10	1.30	0.58	0.85	0.26	1.69	-0.39	-30%
GUJARAT	41048	5.25	7.56	2.19	15.00	5.89	8.57	2.62	17.09	-2.09	-14%
HARYANA	16235	1.91	3.14	1.86	6.91	2.33	3.39	1.04	6.75	0.15	2%
HIMACHAL PRADESH	7153	1.13	1.06	0.29	2.48	0.99	1.48	0.45	2.92	-0.44	-18%
J&K	13553	1.66	2.54	0.50	4.70	1.93	2.83	0.86	5.62	-0.92	-20%
JHARKHAND	8882	1.39	1.97	0.21	3.57	1.29	1.86	0.57	3.72	-0.15	-4%
KARNATAKA	20302	4.17	5.20	2.20	11.56	2.90	4.25	1.29	8.45	3.11	27%
KERALA	11091	1.29	2.72	0.42	4.44	1.59	2.32	0.71	4.62	-0.18	-4%
M.P.	36698	4.61	5.70	2.33	12.64	5.25	7.66	2.34	15.26	-2.62	-21%
MAHARASHTRA	43611	6.71	7.94	3.70	18.34	6.24	9.11	2.78	18.14	0.21	1%
MANIPUR	862	0.21	0.16	0.06	0.44	0.12	0.18	0.05	0.35	0.09	20%
MEGHALAYA	1740	0.31	0.38	0.07	0.76	0.25	0.36	0.11	0.72	0.04	6%
MIZORAM	637	0.15	0.14	0.04	0.33	0.09	0.13	0.04	0.26	0.07	20%
NAGALAND	793	0.15	0.17	0.06	0.38	0.11	0.17	0.05	0.33	0.05	14%
ODISHA	18385	2.30	3.75	0.71	6.76	2.63	3.84	1.17	7.65	-0.89	-13%
PUDUCHERRY	3136	0.39	0.77	0.07	1.23	0.45	0.65	0.20	1.30	-0.07	-5%
PUNJAB	19579	1.75	3.14	1.36	6.26	2.79	4.08	1.25	8.12	-1.87	-30%
RAJASTHAN	20367	2.36	3.50	2.14	8.00	2.91	4.25	1.30	8.45	-0.45	-6%
SIKKIM	1382	0.21	0.28	0.02	0.51	0.20	0.29	0.09	0.57	-0.06	-12%

DISCOM	SCHEDULED ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs Thousand CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs Thousand CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs Thousand CRORE	%
TAMILNADU	30973	4.89	8.02	1.28	14.19	4.45	6.47	1.98	12.90	1.29	9%
TELANGANA	22881	3.21	6.34	1.52	11.07	3.33	4.80	1.48	9.61	1.46	13%
TRIPURA	1791	0.32	0.30	0.04	0.66	0.25	0.37	0.11	0.74	-0.07	-11%
UTTAR PRADESH	45841	5.96	9.13	3.47	18.57	6.51	9.54	2.91	18.96	-0.39	-2%
UTTARAKHAND	5806	0.77	1.10	0.51	2.39	0.82	1.21	0.37	2.40	-0.01	0%
WEST BENGAL	9778	1.11	2.11	0.50	3.72	1.40	2.04	0.62	4.07	-0.35	-9%
TOTAL	499750	71	104	32	207	71	104	32	207		

Following is the summary of overall benefits / gains from this mechanism as compared with the existing mechanism for the entire year of 2022-23:

DISCOM	SCHEDULED ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs Thousand CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs Thousand CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs Thousand CRORE	PERCENTAGE
ANDHRA PRADESH	17011	2.35	4.80	1.70	8.85	2.36	3.58	1.00	6.94	1.91	22%
ARUNACHAL PRADESH	899	0.15	0.19	0.04	0.38	0.12	0.19	0.05	0.36	0.02	5%
ASSAM	7901	1.39	1.79	0.62	3.80	1.08	1.66	0.46	3.20	0.61	16%
BIHAR	54472	8.87	12.70	1.30	22.87	7.52	11.45	3.17	22.15	0.72	3%
CHANDIGARH	1375	0.21	0.27	0.05	0.53	0.19	0.29	0.08	0.55	-0.03	-5%
CHHATTISGARH	15933	2.42	3.21	0.50	6.13	2.20	3.35	0.93	6.48	-0.35	-6%
DADRANAGARHAVELI	5094	1.02	1.05	0.47	2.54	0.70	1.07	0.30	2.07	0.47	19%
DAMANDIV	2284	0.45	0.51	0.12	1.08	0.31	0.48	0.13	0.93	0.16	14%
DELHI	20794	3.13	4.87	1.42	9.43	2.84	4.36	1.20	8.40	1.02	11%
GOA	4299	0.46	0.77	0.10	1.34	0.59	0.90	0.25	1.75	-0.41	-31%
GUJARAT	43250	5.25	7.98	2.19	15.41	5.99	9.10	2.53	17.62	-2.21	-14%
HARYANA	16963	1.91	3.29	1.86	7.06	2.35	3.57	0.99	6.91	0.15	2%
HIMACHAL PRADESH	7219	1.13	1.07	0.29	2.49	0.97	1.51	0.41	2.89	-0.40	-16%
J&K	13763	1.66	2.58	0.50	4.74	1.89	2.89	0.80	5.59	-0.85	-18%
JHARKHAND	22244	3.42	4.95	0.21	8.58	3.11	4.69	1.31	9.12	-0.54	-6%
KARNATAKA	21471	4.19	5.52	2.20	11.91	2.96	4.53	1.25	8.74	3.17	27%
KERAL	11685	1.30	2.88	0.43	4.60	1.62	2.46	0.68	4.76	-0.16	-3%
M.P.	38390	4.61	5.97	2.33	12.91	5.31	8.08	2.24	15.63	-2.72	-21%
MAHARASHTRA	45743	6.71	8.34	3.70	18.75	6.32	9.63	2.67	18.62	0.13	1%
MANIPUR	892	0.21	0.17	0.06	0.45	0.12	0.19	0.05	0.36	0.09	20%
MEGHALAYA	1816	0.31	0.40	0.07	0.78	0.25	0.38	0.10	0.73	0.05	6%
MIZORAM	667	0.15	0.14	0.04	0.34	0.09	0.14	0.04	0.27	0.07	20%
NAGALAND	832	0.15	0.18	0.06	0.39	0.11	0.17	0.05	0.34	0.05	14%
ODISHA	22765	2.90	4.72	0.71	8.34	3.13	4.78	1.32	9.24	-0.91	-11%
PUDUCHERRY	3290	0.39	0.81	0.07	1.27	0.45	0.69	0.19	1.33	-0.06	-5%
PUNJAB	20362	1.75	3.27	1.36	6.39	2.81	4.28	1.18	8.27	-1.88	-30%
RAJASTHAN	21286	2.36	3.66	2.14	8.16	2.93	4.48	1.24	8.65	-0.49	-6%
SIKKIM	1531	0.22	0.32	0.02	0.56	0.21	0.32	0.09	0.62	-0.06	-10%

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs Thousand CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs Thousand CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs Thousand CRORE	PERCENTAGE
TAMILNADU	32589	4.91	8.49	1.28	14.68	4.51	6.86	1.90	13.28	1.41	10%
TELANGANA	27150	3.64	7.57	1.65	12.85	3.76	5.72	1.59	11.07	1.78	14%
TRIPURA	1884	0.32	0.31	0.04	0.68	0.26	0.39	0.11	0.76	-0.08	-12%
UTTARPRADESH	47547	5.98	9.46	3.48	18.91	6.52	9.98	2.76	19.26	-0.34	-2%
UTTARAKHAND	5985	0.77	1.13	0.51	2.42	0.82	1.26	0.35	2.42	0.00	0%
WESTBENGAL	12025	1.39	2.61	0.58	4.58	1.66	2.53	0.70	4.90	-0.32	-7%
		-	-	-	-	-	-	-	-	-	
TOTAL	551410	76	116	32	224	76	116	32	224		

Chapter 6

Impact of Generation Bucket Filling

6.1. Methodology adopted

In this activity, an optimization was done considering the actual energy scheduled in 2019-20 using Generation Bucket Filling methodology and impact of the same on Pooled Common Tariff was assessed. Such an optimization would ensure that cheaper plants are dispatched to their Declared availability i.e. maximum possible generation levels considering technical constraints and costlier plants are run at technical minimum or at optimal levels considering total system demand. Specifically, the activities covered under this included the following:

- 1) Re-arranging the actual scheduled generation of ISGS stations if Generation bucket filling and unit commitment approach is followed for the entire year with the objective to minimize the total variable cost of generation using a linear programming model.
- 2) The model took into account the upper and lower limits (technical minimum) of generation from each station and arrived at the most optimal dispatch portfolio for all ISGS.
- 3) Assessing the impact of the above on the Pooled Common Tariff
- 4) Assessing the benefits arising out of such an exercise
- 5) Analyzing the change in gains / losses to states

The Generation Bucket Filling optimisation is done using a Linear Programming model with the objective function to minimise the total variable cost of generation. The re-arrangement of energy dispatch from the generators is undertaken subject to the below constraints:

- The minimum of actual scheduled energy and energy at technical minimum for all days in month is considered as the lower limit of scheduled energy from a plant
- The available energy is considered as the upper limit of scheduled energy from a plant
- Gas and Must run stations (Nuclear, RE, etc.) are dispatched to the actual scheduled energy

Following is an illustration of how the re-arrangement in energy schedule of ISGS is carried out:

Gen	IC (MW)	Energy at TM for 1 day (MWh)	Energy at TM for a month (MWh)	Available Energy (MWh)	Actual Scheduled Energy (MWh)	Scheduled Energy Range (MWh)		Scheduled Energy after GBF (MWh)	Increase / Decrease (MWh)
						Lower Limit	Upper Limit		
Rihand II	1000	13200	396000	677743	568667	396000	677743	677743	109076
Kudgi	2400	31680	950400	1772617	756995	756995	1772617	756995	0
Vallur	1500	19800	594000	1067926	723224	594000	1067926	594000	-129224

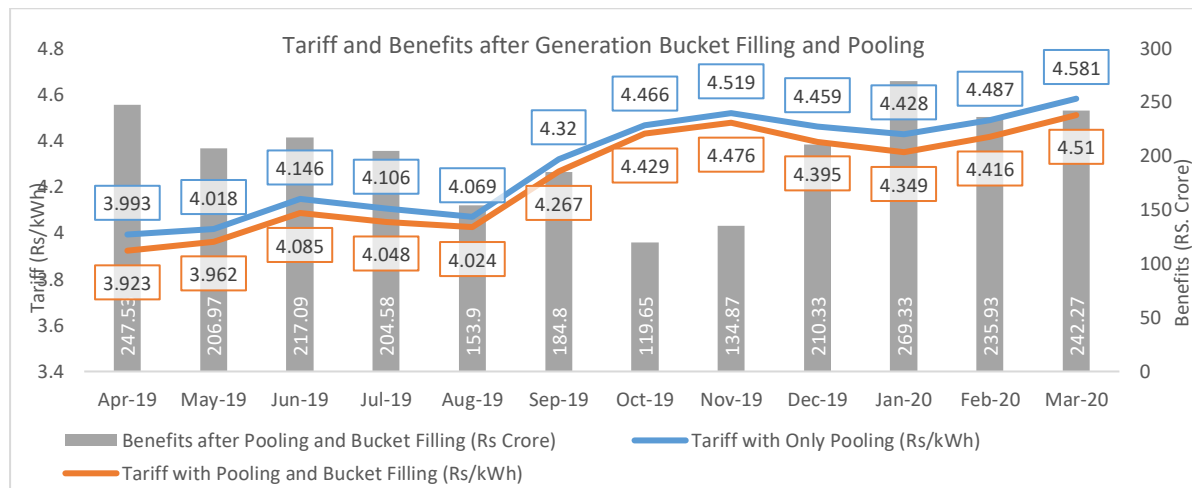
In the above illustration:

- 1) Rihand II was scheduled for 5,68,667 MWh during the month (more than its technical minimum level) whereas it was available to the tune of 6,77,743. Since it is a cheaper station, it would be optimized with an additional schedule of 1,09,075 MWh to match its declared availability.
- 2) Vallur was scheduled for 7,23,224 MWh during the month (more than its technical minimum). Since it is a costlier plant, it would be run at its technical minimum level only since Rihand II has been utilized to generate additional energy to meet the overall system demand.
- 3) Kudgi was scheduled for 7,56,995 MWh during the month (less than its technical minimum) and it continues to run at the same level.

As the total system demand is now met through more of cheaper generation and less of costlier generation, there would be substantial generation cost savings / benefits. Benefits, thus realised, through this approach of bucket filling are then re-distributed to states incurring losses after pooling of tariff, in proportion to their losses.

6.2. Impact on Pooled Tariff and Benefits from Generation Bucket Filling

Following is the impact of Generation Bucket filling on the overall pooled tariff:

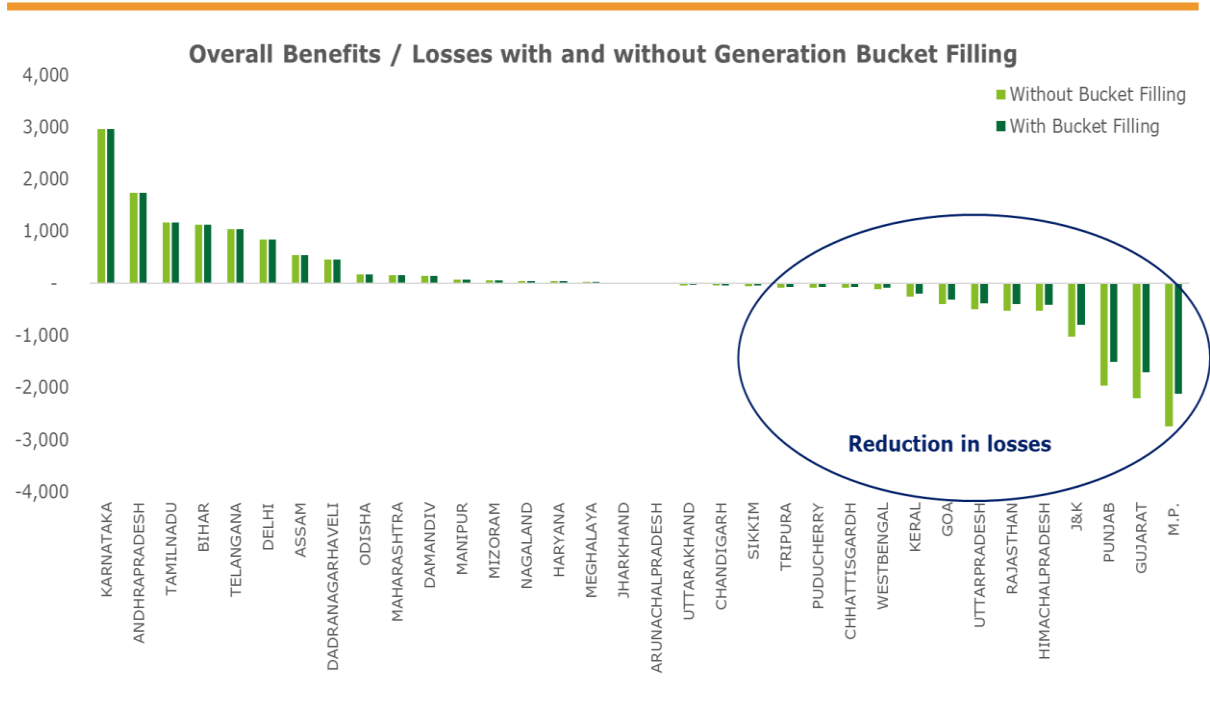


Months	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Total
Tariff Pooled Only (Rs/kWh)	3.993	4.018	4.146	4.106	4.069	4.32	4.466	4.519	4.459	4.428	4.487	4.581	
Tariff Pooled + GBF (Rs/kWh)	3.923	3.962	4.085	4.048	4.024	4.267	4.429	4.476	4.395	4.349	4.416	4.51	
Benefits after Pooling & GBF (Rs Crore)	248	207	217	205	154	185	120	135	210	269	236	242	2425

Following is the distribution of benefits / losses to each of the states with and without bucket filling:

DISCOM	Benefits with Pooled Tariff		Benefits with Pooled Tariff and Bucket Filling	
	Rs CRORE	%	Rs CRORE	%
ANDHRA PRADESH	1,741	22%	1741	22%
ARUNACHAL PRADESH	6	2%	6	2%
ASSAM	539	15%	539	15%
BIHAR	1,125	11%	1125	11%
CHANDIGARH	-46	-9%	-36	-7%
CHHATTISGARH	-84	-2%	-65	-2%
DADRA NAGAR HAVELI	457	20%	457	20%
DAMAN & DIU	147	15%	147	15%
DELHI	838	9%	838	9%
GOA	-399	-33%	-308	-25%
GUJARAT	-2,204	-16%	-1701	-12%
HARYANA	45	1%	45	1%

DISCOM	Benefits with Pooled Tariff		Benefits with Pooled Tariff and Bucket Filling	
	Rs CRORE	%	Rs CRORE	%
HIMACHAL PRADESH	-527	-21%	-407	-16%
J&K	-1,028	-23%	-793	-18%
JHARKHAND	12	1%	12	1%
KARNATAKA	2,957	27%	2957	27%
KERALA	-250	-6%	-193	-5%
M.P.	-2,744	-23%	-2117	-18%
MAHARASHTRA	162	1%	162	1%
MANIPUR	79	18%	79	18%
MEGHALAYA	30	4%	30	4%
MIZORAM	61	19%	61	19%
NAGALAND	48	13%	48	13%
ODISHA	170	6%	170	6%
PUDUCHERRY	-83	-7%	-64	-5%
PUNJAB	-1,958	-32%	-1511	-25%
RAJASTHAN	-517	-7%	-399	-5%
SIKKIM	-55	-17%	-43	-13%
TAMILNADU	1,170	9%	1170	9%
TELANGANA	1,037	15%	1037	15%
TRIPURA	-81	-12%	-62	-10%
UTTAR PRADESH	-495	-3%	-382	-2%
UTTARAKHAND	-41	-2%	-32	-1%
WEST BENGAL	-112	-4%	-87	-3%



As can be clearly observed, there is a reduction in losses of the loss-making states due to the generation bucket filling which leads to more system savings and generation of benefits which are then re-distributed to the states.

CONCLUSION

Following are the key inferences obtained from the simulation of pooled common tariff in the country:-

- 1) The pooled tariff is relatively lower during the months of April-August whereas it increases subsequently during the rest of the year. The pooled tariff for a particular month is dependent on the fuel mix in the overall actual generation and the quantum of energy scheduled for the particular month. In months where the generation is relatively higher than the rest as well as during months dominated by increased low cost generation from hydro-electric plants, it has been observed that the pooled tariff is comparatively lower and vice-versa.
- 2) It has been observed that lesser energy is scheduled in the months from Oct-19 to Mar-20 as against Apr-19 to Sep-19, since the latter represents the period of high demand as well as period of high hydro generation. Transmission pooled tariff is, thus, lower in the first six months and is relatively higher during the rest six months of the years
- 3) Since states in Northern and Western region are tied up with ISGS which have much cheaper variable / fixed costs than states in Southern region, such states would stand to incur higher pay out in terms of fixed cost and variable cost due to the effect of pooled common tariff in the country. It has been observed that states in the southern region and few states in Eastern / North-Eastern region would witness reduction in power purchase costs as they are tied up with costlier plants.
- 4) Point-of-connection withdrawal charges also vary from state to state. States which have high existing PoC slab rates as well as who are effectively paying higher transmission charges per unit of scheduled energy would stand to gain if they would have to pay for their approved LTOA quantum at the pooled transmission charges and vice-versa.
- 5) In case the fixed costs are pooled separately for scheduled component of the ISGS and URS component separately, as per methodology illustrated above, few states witness reduction in losses whereas few states witness minor increase in losses. This is primarily because of the fact that URS component of ISGS is being pooled across all states and hence, states which are tied up with ISGS having substantial URS, would tend to benefit since such costs would be shared by all states. On the other hand, states which are not tied up with such ISGS, which have substantial URS, will also need to share the costs to the extent of their overall entitlement from ISGS stations.
- 6) Such pattern of gains / losses is consistent across states for each of the FC, VC and TC components
- 7) Since there is additional generation from existing ISGS in future years, the total FC and TC payout from existing ISGS stations is now recovered from an increased consumption by the states and hence, the pooled FC and TC per unit decreases. Moreover, additional variable cost payout is on account of increased consumption by states and hence the pooled VC tends to increase in the future marginally. The overall % benefits / losses for each states tends to follow the same pattern as that of base case scenario
- 8) Capacity additions in the future have an effect in lowering the overall pooled tariff, although marginally.
- 9) Optimisation of Scheduled Energy using Generation Bucket Filling leads to overall savings of Rs 2425 crores. The overall savings are then distributed to states who are not gaining after pooled tariff, leading to a reduction of losses.

ANNEXURE

I. ISGS data considered for the study

ISGS	Region	Type	Installed Capacity (MW)
ANTAGF	NR	Coal/Gas	419
ANTALF	NR	Coal/Gas	
ANTARF	NR	Coal/Gas	
AURAIYAGF	NR	Coal/Gas	663
AURAIYALF	NR	Coal/Gas	
AURAIYARF	NR	Coal/Gas	
DADRIGF	NR	Coal/Gas	830
DADRILF	NR	Coal/Gas	
DADRIRF	NR	Coal/Gas	
DADRITPS	NR	Coal/Gas	840
DADRI-IITPS	NR	Coal/Gas	980
IGSTPS-JHAJJAR	NR	Coal/Gas	1500
RIHANDSTPS	NR	Coal/Gas	1000
RIHAND-IISTPS	NR	Coal/Gas	1000
RIHAND-IIISTPS	NR	Coal/Gas	1000
SINGRAULISTPS	NR	Coal/Gas	2000
TANDA-IISTPS	NR	Coal/Gas	660
UNCHAHAAR-ITPS	NR	Coal/Gas	420
UNCHAHAAR-IITPS	NR	Coal/Gas	420
UNCHAHAAR-IIITPS	NR	Coal/Gas	210
UNCHAHAAR-IVTPS	NR	Coal/Gas	500
BAIRASIULHEP	NR	Hydro	180
CHAMERAHEP	NR	Hydro	540
CHAMERA-IIHEP	NR	Hydro	300
CHAMERA-IIIIHEP	NR	Hydro	231
DHAULIGANGAHEP	NR	Hydro	280
DULHASTIHEP	NR	Hydro	390
KOLDAMHEP	NR	Hydro	800
KOTESHWAR	NR	Hydro	400
KISHANGANGAHEP	NR	Hydro	330
NAPP	NR	Nuclear	440
NATHPAJHAKRIHEP	NR	Hydro	1500
PARBATI-III	NR	Hydro	520
RAPPB	NR	Nuclear	440
RAPPC	NR	Nuclear	440
RAMPURHEP	NR	Hydro	412
SEWA-IIHEP	NR	Hydro	120
SALALHEP	NR	Hydro	690
TEHRIHEP	NR	Hydro	1000

ISGS	Region	Type	Installed Capacity (MW)
TANAKPURHEP	NR	Hydro	123
URIHEP	NR	Hydro	480
URI-IIHEP	NR	Hydro	240
DADRI SOLAR	NR	Solar	5
SINGRAULI SOLAR	NR	Solar	15
KSTPS	WR	Coal/Gas	2100
VSTPS-1	WR	Coal/Gas	1260
VSTPS-2	WR	Coal/Gas	1000
VSTPS-3	WR	Coal/Gas	1000
KGPS(Gas)	WR	Coal/Gas	656
KGPS(Liquid)	WR	Coal/Gas	
KGPS(RLNG)	WR	Coal/Gas	
KGPS(NONAPM)*	WR	Coal/Gas	
GGPS(Gas)	WR	Coal/Gas	657
GGPS(RLNG)	WR	Coal/Gas	
GGPS(NONAPM)*	WR	Coal/Gas	
SSTPS-II	WR	Coal/Gas	1000
KSTPS-III	WR	Coal/Gas	500
NSPCL	WR	Coal/Gas	814
Sipat-I	WR	Coal/Gas	1980
RGPPL	WR	Coal/Gas	1967
VSTPS#4	WR	Coal/Gas	1000
MAUDA	WR	Coal/Gas	1000
VSTPS#5	WR	Coal/Gas	500
MOUDA-STG-2	WR	Coal/Gas	1320
SolSTPP	WR	Coal/Gas	1320
GSTPP	WR	Coal/Gas	800
LARA	WR	Coal/Gas	800
Khargone	WR	Coal/Gas	1320
SASAN	WR	Coal/Gas	3960
CGPL	WR	Coal/Gas	4150
KAPS	WR	Nuclear	440
TAPS1&2	WR	Nuclear	320
TAPS3&4	WR	Nuclear	1080
SSP	WR	Hydro	1450
PENCH	WR	Hydro	160
FSTPSSTAGE-I&II	ER	Coal/Gas	1600
FSTPSSTAGE-III	ER	Coal/Gas	500
KhSTPSSTAGE-I	ER	Coal/Gas	840
KhSTPSSTAGE-II	ER	Coal/Gas	1500
TSTPSSTAGE-I	ER	Coal/Gas	1000
BARHSTPSSTAGE-II	ER	Coal/Gas	1320
BRBCL	ER	Coal/Gas	750
MTPSSTAGE-II	ER	Coal/Gas	390
NabinagarSTPP	ER	Coal/Gas	660

ISGS	Region	Type	Installed Capacity (MW)
DarlipalliSTPS-I	ER	Coal/Gas	800
Rangit	ER	Hydro	60
Teesta-V	ER	Hydro	510
KOPII	NER	Hydro	200
KOPII-2	NER	Hydro	25
KHANDONG	NER	Hydro	50
RANGANADI	NER	Hydro	405
DOYANG	NER	Hydro	75
LOKTAK	NER	Hydro	105
PARE	NER	Hydro	110
AGBPP	NER	Coal/Gas	291
AGTCCPP	NER	Coal/Gas	135
PALATANA	NER	Coal/Gas	727
BGTPP	NER	Coal/Gas	750
NTPC RSTPS Stage 1&2	SR	Coal/Gas	2100
NTPC RSTPS Stage3	SR	Coal/Gas	500
NTPC Talcher STPS Stage2	SR	Coal/Gas	2000
NTPC Simhadri STPS Stage2	SR	Coal/Gas	1000
NTPC Simhadri STPS Stage1	SR	Coal/Gas	1000
NTPC Kudgi STPS Stage1	SR	Coal/Gas	2400
NTECL Vallur STPS	SR	Coal/Gas	1500
NLCTS II Stage1	SR	Coal/Gas	630
NLCTS II Stage2	SR	Coal/Gas	840
NLCTS I Expn	SR	Coal/Gas	420
NLCTS 2 Expn	SR	Coal/Gas	500
NTPL	SR	Coal/Gas	1000
NNTPP-Unit1	SR	Coal/Gas	500
NPCIL, MAPSKALPAKKAM	SR	Nuclear	440
NPCIL,KAIGA1&2	SR	Nuclear	440
NPCIL,KAIGA3	SR	Nuclear	220
NPCIL,KAIGA4	SR	Nuclear	220
NPCIL,KKNPP	SR	Nuclear	1000
NPCIL,KKNPPUNIT-2	SR	Nuclear	1000
Total			88,097

II. Month wise results of pooled tariff determination

Pooled tariff and Comparison of benefits / losses - April-19

With pooled FC payout as per scheduled energy

FC_POOLED (Rs/kWh)	1.305
VC_POOLED (Rs/kWh)	2.019
TC_POOLED (Rs/kWh)	0.670
Overall pooled tariff (Rs/kWh)	3.993

DISCOM	SCHEDULE D_ ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENT AGE
ANDHRAPRADESH	1165	159	331	117	607	152	235	78	465	142	23%
ARUNACHALPRADESH	76	9	19	3	31	10	15	5	30	1	2%
ASSAM	540	129	120	53	302	70	109	36	216	86	29%
BIHAR	1780	292	392	100	783	232	359	119	711	72	9%
CHANDIGARH	113	17	21	4	42	15	23	8	45	-4	-9%
CHHATTISGARH	753	126	114	33	273	98	152	50	301	-28	-10%
DADRANAGAR HAVELI	407	72	80	36	188	53	82	27	162	26	14%
DAMANDIV	180	31	38	10	78	23	36	12	72	7	8%
DELHI	1693	260	389	121	770	221	342	113	676	95	12%
GOA	335	37	58	10	104	44	68	22	134	-29	-28%
GUJARAT	3317	315	575	156	1047	433	670	222	1325	-278	-27%
HARYANA	1249	136	221	150	507	163	252	84	499	8	2%
HIMACHALPRADESH	584	88	87	22	197	76	118	39	233	-36	-18%
J&K	1010	117	168	28	312	132	204	68	403	-91	-29%
JHARKHAND	299	45	63	18	125	39	60	20	119	6	5%
KARNATAKA	2043	315	568	161	1044	267	412	137	816	228	22%
KERALA	905	93	227	38	359	118	183	61	361	-2	-1%
M.P.	2847	322	425	165	912	371	575	191	1137	-225	-25%
MAHARASHTRA	3651	514	645	312	1471	476	737	245	1458	12	1%
MANIPUR	64	19	13	5	37	8	13	4	26	11	30%
MEGHALAYA	129	28	28	5	60	17	26	9	51	9	15%
MIZORAM	50	12	11	3	25	7	10	3	20	5	21%
NAGALAND	57	13	12	5	29	7	11	4	23	7	23%
ODISHA	700	71	146	56	274	91	141	47	279	-5	-2%
PUDUCHERRY	270	28	68	6	102	35	54	18	108	-6	-6%
PUNJAB	1587	111	244	100	454	207	320	106	634	-179	-39%

DISCOM	SCHEDULE D_ ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENT AGE
RAJASTHAN	1627	167	264	139	571	212	328	109	650	-79	-14%
SIKKIM	76	9	14	2	25	10	15	5	30	-5	-21%
TAMILNADU	2450	335	680	74	1090	320	495	164	978	111	10%
TELANGANA	1143	165	316	77	558	149	231	77	457	102	18%
TRIPURA	160	34	26	4	64	21	32	11	64	0	0%
UTTARPRADESH	2892	396	528	263	1187	377	584	194	1155	32	3%
UTTARAKHAND	497	61	91	38	189	65	100	33	199	-10	-5%
WESTBENGAL	541	66	125	42	234	71	109	36	216	18	8%
TOTAL	35191	4591	7104	2357	14052	4591	7104	2357	14052		

With pooled FC payout as per segregation of schedule and URS component

DISCOM	SCHEDULED ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENT AGE
ANDHRA PRADESH	1165	159	331	117	607	152	235	78	465	142	23%
ARUNACHALPRADESH	76	9	19	3	31	8	15	5	29	2	7%
ASSAM	540	129	120	53	302	112	109	36	258	44	15%
BIHAR	1780	292	392	100	783	296	359	119	774	9	1%
CHANDIGARH	113	17	21	4	42	20	23	8	50	-9	-21%
CHHATTISGARH	753	126	114	33	273	122	152	50	325	-52	-19%
DADRANAGARH AVELI	407	72	80	36	188	64	82	27	173	15	8%
DAMANDIV	180	31	38	10	78	26	36	12	74	4	6%
DELHI	1693	260	389	121	770	214	342	113	669	101	13%
GOA	335	37	58	10	104	41	68	22	131	-27	-26%
GUJARAT	3317	315	575	156	1047	356	670	222	1248	-201	-19%
HARYANA	1249	136	221	150	507	123	252	84	459	48	10%
HIMACHALPRADESH	584	88	87	22	197	68	118	39	225	-28	-14%
J&K	1010	117	168	28	312	121	204	68	393	-81	-26%
JHARKHAND	299	45	63	18	125	45	60	20	126	0	0%
KARNATAKA	2043	315	568	161	1044	284	412	137	833	211	20%
KERALA	905	93	227	38	359	105	183	61	348	11	3%
M.P.	2847	322	425	165	912	360	575	191	1125	-213	-23%
MAHARASHTRA	3651	514	645	312	1471	497	737	245	1479	-9	-1%
MANIPUR	64	19	13	5	37	16	13	4	34	3	9%
MEGHALAYA	129	28	28	5	60	24	26	9	58	2	3%

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENT AGE
MIZORAM	50	12	11	3	25	10	10	3	24	2	7%
NAGALAND	57	13	12	5	29	11	11	4	26	3	11%
ODISHA	700	71	146	56	274	73	141	47	261	13	5%
PUDUCHERRY	270	28	68	6	102	33	54	18	105	-3	-3%
PUNJAB	1587	111	244	100	454	147	320	106	573	-119	-26%
RAJASTHAN	1627	167	264	139	571	188	328	109	626	-55	-10%
SIKKIM	76	9	14	2	25	9	15	5	30	-5	-19%
TAMILNADU	2450	335	680	74	1090	352	495	164	1010	79	7%
TELANGANA	1143	165	316	77	558	162	231	77	469	89	16%
TRIPURA	160	34	26	4	64	30	32	11	73	-9	-14%
UTTARPRADESH	2892	396	528	263	1187	396	584	194	1174	12	1%
UTTARAKHAND	497	61	91	38	189	60	100	33	194	-5	-3%
WESTBENGAL	541	66	125	42	234	65	109	36	211	23	10%
TOTAL	35191	4591	7104	2357	14052	4591	7104	2357	14052		

Pooled tariff and Comparison of benefits / losses - May-19

With pooled FC payout as per scheduled energy

FC_POOLED (Rs/kWh)	1.310
VC_POOLED (Rs/kWh)	2.047
TC_POOLED (Rs/kWh)	0.661
Overall pooled tariff (Rs/kWh)	4.018

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENT AGE
ANDHRA PRADESH	1081	162	298	120	579	142	221	71	435	145	25%
ARUNACHAL PRADESH	72	10	15	3	29	9	15	5	29	0	-1%
ASSAM	674	133	141	51	325	88	138	45	271	54	17%
BIHAR	1864	278	420	100	798	244	382	123	749	49	6%
CHANDIGARH	128	18	24	4	46	17	26	8	52	-6	-13%
CHHATTISGARH	745	127	123	33	283	98	153	49	299	-16	-6%
DADRANAGAR HAVELI	388	77	81	36	195	51	79	26	156	39	20%
DAMANDIV	180	36	42	10	88	24	37	12	72	15	17%

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
DELHI	1908	257	454	121	833	250	391	126	767	66	8%
GOA	316	35	55	10	100	41	65	21	127	-27	-27%
GUJARAT	3321	427	600	197	1224	435	680	219	1335	-111	-9%
HARYANA	1435	160	278	166	604	188	294	95	577	28	5%
HIMACHALPRADESH	750	90	116	22	227	98	154	50	301	-74	-32%
J&K	1236	115	226	28	369	162	253	82	497	-128	-35%
JHARKHAND	335	43	70	18	130	44	69	22	135	-4	-3%
KARNATAKA	1720	313	432	159	904	225	352	114	691	213	24%
KERAL	917	96	228	39	362	120	188	61	369	-6	-2%
M.P.	2995	319	478	166	964	392	613	198	1203	-240	-25%
MAHARASHTRA	3490	549	629	313	1491	457	715	231	1403	89	6%
MANIPUR	100	21	20	5	45	13	20	7	40	5	11%
MEGHALAYA	188	30	36	5	71	25	39	12	76	-5	-7%
MIZORAM	58	13	12	3	27	8	12	4	23	4	14%
NAGALAND	63	14	12	5	31	8	13	4	25	6	18%
ODISHA	713	65	151	56	272	93	146	47	286	-14	-5%
PUDUCHERRY	282	29	71	6	107	37	58	19	113	-7	-6%
PUNJAB	1680	148	262	113	522	220	344	111	675	-153	-29%
RAJASTHAN	1829	198	308	151	657	240	374	121	735	-78	-12%
SIKKIM	85	9	14	2	25	11	17	6	34	-9	-37%
TAMILNADU	2488	347	667	75	1088	326	509	164	1000	89	8%
TELANGANA	1068	163	286	77	526	140	219	71	429	97	18%
TRIPURA	183	36	29	4	69	24	38	12	74	-5	-7%
UTTARPRADESH	3512	397	754	264	1415	460	719	232	1411	4	0%
UTTARAKHAND	505	61	92	38	191	66	103	33	203	-12	-6%
WESTBENGAL	622	63	139	42	244	82	127	41	250	-6	-2%
TOTAL	36932	4839	7562	2440	14840	4839	7562	2440	14840	0	

With pooled FC payout as per segregation of schedule and URS component

DISCOM	SCHEDULED ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENT AGE
ANDHRA PRADESH	1081	162	298	120	579	140	221	71	433	146	25%
ARUNACHAL PRADESH	72	10	15	3	29	9	15	5	29	0	0%
ASSAM	674	133	141	51	325	118	138	45	300	25	8%
BIHAR	1864	278	420	100	798	273	382	123	778	21	3%
CHANDIGARH	128	18	24	4	46	21	26	8	55	-10	-21%
CHHATTISGARH	745	127	123	33	283	118	153	49	320	-37	-13%
DADRANAGARH AVELI	388	77	81	36	195	63	79	26	168	27	14%
DAMANDIV	180	36	42	10	88	26	37	12	74	13	15%
DELHI	1908	257	454	121	833	238	391	126	755	77	9%
GOA	316	35	55	10	100	38	65	21	124	-24	-24%
GUJARAT	3321	427	600	197	1224	474	680	219	1374	-150	-12%
HARYANA	1435	160	278	166	604	171	294	95	559	45	7%
HIMACHALPRAD ESH	750	90	116	22	227	77	154	50	280	-52	-23%
J&K	1236	115	226	28	369	125	253	82	459	-91	-25%
JHARKHAND	335	43	70	18	130	43	69	22	134	-4	-3%
KARNATAKA	1720	313	432	159	904	248	352	114	714	190	21%
KERAL	917	96	228	39	362	100	188	61	348	14	4%
M.P.	2995	319	478	166	964	356	613	198	1167	-204	-21%
MAHARASHTRA	3490	549	629	313	1491	541	715	231	1486	5	0%
MANIPUR	100	21	20	5	45	18	20	7	45	0	0%
MEGHALAYA	188	30	36	5	71	27	39	12	78	-7	-10%
MIZORAM	58	13	12	3	27	11	12	4	27	0	1%
NAGALAND	63	14	12	5	31	12	13	4	29	2	6%
ODISHA	713	65	151	56	272	67	146	47	260	12	5%
PUDUCHERRY	282	29	71	6	107	32	58	19	109	-2	-2%
PUNJAB	1680	148	262	113	522	189	344	111	644	-122	-23%
RAJASTHAN	1829	198	308	151	657	228	374	121	723	-66	-10%
SIKKIM	85	9	14	2	25	10	17	6	32	-8	-30%
TAMILNADU	2488	347	667	75	1088	337	509	164	1011	77	7%
TELANGANA	1068	163	286	77	526	149	219	71	438	88	17%
TRIPURA	183	36	29	4	69	32	38	12	81	-12	-18%
UTTARPRADESH	3512	397	754	264	1415	419	719	232	1370	44	3%
UTTARAKHAND	505	61	92	38	191	64	103	33	201	-9	-5%

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENT AGE
WESTBENGAL	622	63	139	42	244	65	127	41	233	11	4%
TOTAL	36932	4839	7562	2440	14840	4839	7562	2440	14840		

Pooled tariff and Comparison of benefits / losses - June-19

FC_POOLED (Rs/kWh)	1.390
VC_POOLED (Rs/kWh)	2.062
TC_POOLED (Rs/kWh)	0.694
Overall pooled tariff (Rs/kWh)	4.146

With pooled FC payout as per scheduled energy

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENT AGE
ANDHRAPRADESH	918	161	242	123	526	128	189	64	381	145	28%
ARUNACHAL PRADESH	89	16	17	3	36	12	18	6	37	-1	-2%
ASSAM	707	130	147	51	328	98	146	49	293	35	11%
BIHAR	1736	286	392	100	777	241	358	121	720	58	7%
CHANDIGARH	137	18	25	4	47	19	28	10	57	-10	-20%
CHHATTISGARH	776	139	137	35	311	108	160	54	322	-10	-3%
DADRANAGARHVELI	388	84	83	38	205	54	80	27	161	44	21%
DAMANDIV	186	39	43	10	92	26	38	13	77	15	16%
DELHI	2008	272	501	121	895	279	414	139	833	62	7%
GOA	327	37	58	10	105	45	67	23	136	-31	-29%
GUJARAT	2853	384	528	202	1113	396	588	198	1183	-70	-6%
HARYANA	1312	162	243	166	571	182	271	91	544	27	5%
HIMACHAL PRADESH	958	89	140	22	251	133	198	67	397	-147	-59%
J&K	1226	118	216	28	362	170	253	85	509	-147	-41%
JHARKHAND	270	44	52	18	114	37	56	19	112	2	2%
KARNATAKA	1651	337	422	163	922	229	340	115	684	238	26%
KERALA	902	107	218	40	365	125	186	63	374	-9	-3%
M.P.	2937	366	488	176	1030	408	606	204	1218	-187	-18%
MAHARASHTRA	3187	526	580	312	1418	443	657	221	1321	97	7%
MANIPUR	99	20	19	5	43	14	20	7	41	2	6%
MEGHALAYA	165	25	32	5	63	23	34	11	69	-6	-9%
MIZORAM	60	11	12	3	26	8	12	4	25	1	4%

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
NAGALAND	73	13	14	5	32	10	15	5	30	2	6%
ODISHA	619	69	122	57	247	86	128	43	257	-10	-4%
PUDUCHERRY	276	31	69	6	107	38	57	19	115	-8	-7%
PUNJAB	1601	134	247	113	494	223	330	111	664	-170	-34%
RAJASTHAN	1741	188	294	151	633	242	359	121	722	-89	-14%
SIKKIM	88	9	15	2	26	12	18	6	37	-11	-42%
TAMILNADU	2351	382	620	73	1076	327	485	163	975	101	9%
TELANGANA	836	151	217	75	443	116	172	58	346	97	22%
TRIPURA	182	36	29	4	69	25	38	13	76	-7	-10%
UTTARPRADESH	3816	421	903	266	1590	530	787	265	1582	8	0%
UTTARAKHAND	504	64	90	38	192	70	104	35	209	-16	-9%
WESTBENGAL	536	63	109	42	215	74	111	37	222	-7	-3%
TOTAL	35517	4935	7325	2466	14726	4935	7325	2466	14726		

With pooled FC payout as per segregation of schedule and URS component

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
ANDHRAPRADESH	918	161	242	123	526	134	189	64	388	138	26%
ARUNACHALPRADESH	89	16	17	3	36	14	18	6	39	-3	-7%
ASSAM	707	130	147	51	328	121	146	49	315	13	4%
BIHAR	1736	286	392	100	777	282	358	121	761	17	2%
CHANDIGARH	137	18	25	4	47	22	28	10	59	-12	-25%
CHHATTISGARH	776	139	137	35	311	124	160	54	338	-27	-9%
DADRANAGARHVELI	388	84	83	38	205	65	80	27	172	33	16%
DAMANDIV	186	39	43	10	92	27	38	13	78	14	15%
DELHI	2008	272	501	121	895	251	414	139	805	90	10%
GOA	327	37	58	10	105	40	67	23	131	-26	-25%
GUJARAT	2853	384	528	202	1113	432	588	198	1218	-105	-9%
HARYANA	1312	162	243	166	571	164	271	91	526	45	8%
HIMACHALPRADESH	958	89	140	22	251	98	198	67	362	-112	-45%
J&K	1226	118	216	28	362	133	253	85	471	-109	-30%
JHARKHAND	270	44	52	18	114	45	56	19	120	-6	-5%
KARNATAKA	1651	337	422	163	922	257	340	115	712	210	23%
KERALA	902	107	218	40	365	110	186	63	359	6	2%
M.P.	2937	366	488	176	1030	378	606	204	1187	-157	-15%
MAHARASHTRA	3187	526	580	312	1418	518	657	221	1396	22	2%
MANIPUR	99	20	19	5	43	18	20	7	45	-2	-5%

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
MEGHALAYA	165	25	32	5	63	24	34	11	70	-7	-11%
MIZORAM	60	11	12	3	26	11	12	4	27	-1	-4%
NAGALAND	73	13	14	5	32	12	15	5	32	0	-1%
ODISHA	619	69	122	57	247	72	128	43	243	4	2%
PUDUCHERRY	276	31	69	6	107	34	57	19	110	-3	-3%
PUNJAB	1601	134	247	113	494	184	330	111	626	-132	-27%
RAJASTHAN	1741	188	294	151	633	227	359	121	707	-74	-12%
SIKKIM	88	9	15	2	26	10	18	6	35	-9	-33%
TAMILNADU	2351	382	620	73	1076	373	485	163	1022	54	5%
TELANGANA	836	151	217	75	443	133	172	58	363	80	18%
TRIPURA	182	36	29	4	69	33	38	13	84	-15	-21%
UTTARPRADESH	3816	421	903	266	1590	450	787	265	1502	88	6%
UTTARAKHAND	504	64	90	38	192	69	104	35	208	-16	-8%
WESTBENGAL	536	63	109	42	215	68	111	37	215	0	0%
TOTAL	35517	4935	7325	2466	14726	4935	7325	2466	14726	0	

Pooled tariff and Comparison of benefits / losses - July-19

With pooled FC payout as per scheduled energy

FC_POOLED (Rs/kWh)	1.387
VC_POOLED (Rs/kWh)	1.997
TC_POOLED (Rs/kWh)	0.723
Overall pooled tariff (Rs/kWh)	4.106

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
ANDHRA PRADESH	1241	172	348	129	648	172	248	90	510	139	21%
ARUNACHAL PRADESH	109	6	16	3	25	15	22	8	45	-20	-79%
ASSAM	823	41	158	30	229	114	164	59	338	-109	-48%
BIHAR	1642	362	365	109	836	228	328	119	674	162	19%
CHANDIGARH	141	18	25	5	48	20	28	10	58	-10	-20%
CHHATTISGARH	814	142	143	36	321	113	163	59	334	-13	-4%
DADRANAGAR HAVELI	381	83	80	38	200	53	76	28	157	43	22%
DAMANDIV	188	38	43	10	92	26	38	14	77	14	16%
DELHI	1945	271	479	133	883	270	388	141	799	84	10%
GOA	338	38	60	7	105	47	67	24	139	-33	-32%

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
GUJARAT	2899	383	551	177	1110	402	579	210	1190	-80	-7%
HARYANA	1141	159	178	193	529	158	228	82	468	61	12%
HIMACHALPRADESH	1023	90	143	26	259	142	204	74	420	-162	-62%
J&K	1098	119	176	33	327	152	219	79	451	-124	-38%
JHARKHAND	261	35	52	21	108	36	52	19	107	1	1%
KARNATAKA	1602	333	404	160	897	222	320	116	658	239	27%
KERALA	876	107	209	31	348	122	175	63	360	-12	-3%
M.P.	2827	372	472	179	1023	392	565	204	1161	-138	-14%
MAHARASHTRA	2956	528	531	287	1345	410	590	214	1214	132	10%
MANIPUR	103	6	16	2	24	14	21	7	42	-18	-76%
MEGHALAYA	192	21	34	4	60	27	38	14	79	-19	-32%
MIZORAM	69	28	12	3	43	10	14	5	28	15	34%
NAGALAND	83	14	15	4	33	11	16	6	34	-1	-2%
ODISHA	647	71	126	57	254	90	129	47	266	-12	-5%
PUDUCHERRY	266	31	65	6	102	37	53	19	109	-7	-7%
PUNJAB	1582	130	239	146	515	219	316	114	650	-134	-26%
RAJASTHAN	1539	183	251	162	596	213	307	111	632	-36	-6%
SIKKIM	91	9	15	2	26	13	18	7	37	-11	-42%
TAMILNADU	2432	391	620	100	1111	337	486	176	999	112	10%
TELANGANA	1137	164	309	91	564	158	227	82	467	97	17%
TRIPURA	196	4	29	1	33	27	39	14	81	-47	-142%
UTTARPRADESH	3582	439	673	296	1407	497	715	259	1471	-64	-5%
UTTARAKHAND	519	63	93	36	192	72	104	38	213	-21	-11%
WESTBENGAL	559	45	119	38	202	78	112	40	230	-28	-14%
TOTAL	35302	4896	7049	2552	14497	4896	7049	2552	14497	0	

With pooled FC payout as per segregation of schedule and URS component

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
ANDHRAPRADESH	1241	172	348	129	648	152	248	90	489	159	25%
ARUNACHALPRADESH	109	6	16	3	25	7	22	8	37	-12	-47%
ASSAM	823	41	158	30	229	44	164	59	268	-39	-17%
BIHAR	1642	362	365	109	836	343	328	119	790	46	6%
CHANDIGARH	141	18	25	5	48	22	28	10	60	-12	-26%
CHHATTISGARH	814	142	143	36	321	124	163	59	346	-25	-8%
DADRANAGARHVELI	381	83	80	38	200	63	76	28	167	33	17%
DAMANDIV	188	38	43	10	92	26	38	14	77	14	16%

DELHI	1945	271	479	133	883	236	388	141	765	118	13%
GOA	338	38	60	7	105	41	67	24	132	-27	-26%
GUJARAT	2899	383	551	177	1110	419	579	210	1207	-97	-9%
HARYANA	1141	159	178	193	529	153	228	82	463	66	12%
HIMACHALPR ADESH	1023	90	143	26	259	105	204	74	384	-125	-48%
J&K	1098	119	176	33	327	136	219	79	434	-107	-33%
JHARKHAND	261	35	52	21	108	38	52	19	109	-1	-1%
KARNATAKA	1602	333	404	160	897	268	320	116	704	193	22%
KERALA	876	107	209	31	348	114	175	63	353	-5	-1%
M.P.	2827	372	472	179	1023	364	565	204	1133	-111	-11%
MAHARASHTR A	2956	528	531	287	1345	501	590	214	1305	41	3%
MANIPUR	103	6	16	2	24	6	21	7	34	-10	-41%
MEGHALAYA	192	21	34	4	60	20	38	14	73	-13	-22%
MIZORAM	69	28	12	3	43	25	14	5	44	-1	-2%
NAGALAND	83	14	15	4	33	13	16	6	36	-3	-8%
ODISHA	647	71	126	57	254	75	129	47	251	3	1%
PUDUCHERRY	266	31	65	6	102	34	53	19	107	-4	-4%
PUNJAB	1582	130	239	146	515	183	316	114	613	-98	-19%
RAJASTHAN	1539	183	251	162	596	225	307	111	643	-47	-8%
SIKKIM	91	9	15	2	26	10	18	7	35	-9	-34%
TAMILNADU	2432	391	620	100	1111	395	486	176	1057	54	5%
TELANGANA	1137	164	309	91	564	151	227	82	461	104	18%
TRIPURA	196	4	29	1	33	4	39	14	57	-24	-72%
UTTARPRADE SH	3582	439	673	296	1407	474	715	259	1448	-41	-3%
UTTARAKHAN D	519	63	93	36	192	70	104	38	211	-19	-10%
WESTBENGAL	559	45	119	38	202	53	112	40	205	-4	-2%
TOTAL	35302	4896	7049	2552	14497	4896	7049	2552	14497	0	

Pooled tariff and Comparison of benefits / losses - August-19

With pooled FC payout as per scheduled energy

FC_POOLED (Rs/kWh)	1.389
VC_POOLED (Rs/kWh)	1.942
TC_POOLED (Rs/kWh)	0.738
Overall pooled tariff (Rs/kWh)	4.069

DISCOM	SCHEDULED_ENER GY (MUs)	BEFORE_POOLED_TARIFF_SCHEM E (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEM E (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENT AGE
ANDHRAPRAD ESH	1040	174	296	131	601	145	202	77	423	177	30%

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
ARUNACHAL PRADESH	96	15	16	4	36	13	19	7	39	-3	-9%
ASSAM	688	129	136	57	322	96	134	51	280	42	13%
BIHAR	1725	263	402	102	767	240	335	127	702	65	8%
CHANDIGARH	146	19	27	5	50	20	28	11	59	-9	-18%
CHHATTISGARH	720	126	127	35	289	100	140	53	293	-4	-1%
DADRANAGARHVELI	347	74	67	35	176	48	67	26	141	35	20%
DAMANDIV	172	36	40	10	85	24	33	13	70	15	18%
DELHI	1910	262	477	133	871	265	371	141	777	94	11%
GOA	323	35	56	7	98	45	63	24	132	-34	-34%
GUJARAT	2956	391	489	177	1057	411	574	218	1203	-146	-14%
HARYANA	1326	164	238	175	577	184	257	98	539	38	7%
HIMACHAL PRADESH	1012	89	147	26	262	141	197	75	412	-150	-57%
J&K	1108	116	184	33	332	154	215	82	451	-119	-36%
JHARKHAND	267	36	56	21	112	37	52	20	109	4	3%
KARNATAKA	1205	321	285	153	759	167	234	89	490	268	35%
KERALA	779	103	191	31	324	108	151	58	317	7	2%
M.P.	2494	321	369	144	834	346	484	184	1015	-180	-22%
MAHARASHTRA	3136	465	502	287	1253	436	609	232	1276	-23	-2%
MANIPUR	98	20	17	5	42	14	19	7	40	2	4%
MEGHALAYA	162	29	30	5	63	22	31	12	66	-2	-4%
MIZORAM	51	12	9	3	23	7	10	4	21	3	11%
NAGALAND	74	13	14	4	31	10	14	5	30	1	4%
ODISHA	589	55	123	57	235	82	114	43	240	-4	-2%
PUDUCHERRY	253	31	63	6	100	35	49	19	103	-3	-3%
PUNJAB	1669	137	261	146	544	232	324	123	679	-136	-25%
RAJASTHAN	1492	186	239	162	588	207	290	110	607	-19	-3%
SIKKIM	88	9	15	2	26	12	17	7	36	-10	-40%
TAMILNADU	2035	381	494	99	974	283	395	150	828	146	15%
TELANGANA	1216	168	328	98	594	169	236	90	495	99	17%
TRIPURA	171	31	28	4	63	24	33	13	70	-7	-10%
UTTAR PRADESH	3550	401	658	283	1343	493	689	262	1445	-102	-8%
UTTARAKHAND	577	65	109	36	210	80	112	43	235	-25	-12%
WEST BENGAL	568	52	121	38	211	79	110	42	231	-20	-9%
TOTAL	34042	4728	6611	2513	13853	4728	6611	2513	13853		

With pooled FC payout as per segregation of schedule and URS component

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
ANDHRAPRADESH	1040	174	296	131	601	139	202	77	418	183	30%
ARUNACHALPRADESH	96	15	16	4	36	15	19	7	40	-5	-13%
ASSAM	688	129	136	57	322	122	134	51	307	16	5%
BIHAR	1725	263	402	102	767	288	335	127	750	17	2%
CHANDIGARH	146	19	27	5	50	28	28	11	67	-17	-33%
CHHATTISGARH	720	126	127	35	289	105	140	53	298	-8	-3%
DADRANAGARHVELI	347	74	67	35	176	54	67	26	147	29	17%
DAMANDIV	172	36	40	10	85	23	33	13	70	16	18%
DELHI	1910	262	477	133	871	237	371	141	749	122	14%
GOA	323	35	56	7	98	36	63	24	123	-25	-25%
GUJARAT	2956	391	489	177	1057	435	574	218	1227	-171	-16%
HARYANA	1326	164	238	175	577	155	257	98	511	67	12%
HIMACHALPRADESH	1012	89	147	26	262	105	197	75	377	-115	-44%
J&K	1108	116	184	33	332	133	215	82	430	-98	-29%
JHARKHAND	267	36	56	21	112	41	52	20	112	0	0%
KARNATAKA	1205	321	285	153	759	247	234	89	570	189	25%
KERALA	779	103	191	31	324	107	151	58	316	9	3%
M.P.	2494	321	369	144	834	295	484	184	963	-129	-15%
MAHARASHTRA	3136	465	502	287	1253	440	609	232	1280	-27	-2%
MANIPUR	98	20	17	5	42	19	19	7	45	-4	-9%
MEGHALAYA	162	29	30	5	63	28	31	12	71	-8	-12%
MIZORAM	51	12	9	3	23	12	10	4	25	-2	-8%
NAGALAND	74	13	14	4	31	13	14	5	33	-1	-4%
ODISHA	589	55	123	57	235	64	114	43	221	14	6%
PUDUCHERRY	253	31	63	6	100	33	49	19	101	-1	-1%
PUNJAB	1669	137	261	146	544	191	324	123	638	-94	-17%
RAJASTHAN	1492	186	239	162	588	231	290	110	631	-43	-7%
SIKKIM	88	9	15	2	26	11	17	7	34	-9	-33%
TAMILNADU	2035	381	494	99	974	371	395	150	917	57	6%
TELANGANA	1216	168	328	98	594	149	236	90	475	118	20%
TRIPURA	171	31	28	4	63	30	33	13	76	-13	-21%
UTTARPRADESH	3550	401	658	283	1343	439	689	262	1391	-48	-4%
UTTARAKHAND	577	65	109	36	210	71	112	43	226	-16	-8%
WESTBENGAL	568	52	121	38	211	61	110	42	214	-2	-1%
TOTAL	34042	4728	6611	2513	13853	4728	6611	2513	13853	0	

Pooled tariff and Comparison of benefits / losses - September-19

With pooled FC payout as per scheduled energy

FC_POOLED (Rs/kWh)	1.525
VC_POOLED (Rs/kWh)	2.034
TC_POOLED (Rs/kWh)	0.761
Overall pooled tariff (Rs/kWh)	4.320

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
ANDHRAPRADESH	1678	286	526	186	997	256	341	128	725	273	27%
ARUNACHAL PRADESH	92	15	15	4	34	14	19	7	40	-6	-16%
ASSAM	642	126	126	66	318	98	131	49	277	41	13%
BIHAR	1896	364	449	120	934	289	386	144	819	115	12%
CHANDIGARH	132	19	26	5	49	20	27	10	57	-8	-16%
CHHATTISGARH	723	139	149	37	326	110	147	55	312	14	4%
DADRANAGARHAVELI	321	76	70	36	181	49	65	24	139	43	24%
DAMANDIV	159	36	42	10	88	24	32	12	69	19	22%
DELHI	1645	219	393	116	728	251	335	125	711	18	2%
GOA	284	34	56	7	97	43	58	22	123	-25	-26%
GUJARAT	3018	463	553	177	1193	460	614	230	1304	-111	-9%
HARYANA	1291	174	233	192	599	197	263	98	557	41	7%
HIMACHAL PRADESH	822	88	118	26	231	125	167	63	355	-124	-54%
J&K	1070	119	190	33	341	163	218	81	462	-121	-36%
JHARKHAND	321	47	71	21	140	49	65	24	139	1	1%
KARNATAKA	1212	333	294	157	784	185	247	92	524	260	33%
KERALA	760	104	192	30	326	116	155	58	328	-2	-1%
M.P.	2785	348	383	159	891	425	566	212	1203	-312	-35%
MAHARASHTRA	3446	550	657	287	1494	525	701	262	1489	5	0%
MANIPUR	76	19	13	5	37	12	15	6	33	4	11%
MEGHALAYA	158	28	29	5	63	24	32	12	68	-6	-9%
MIZORAM	48	12	8	3	23	7	10	4	21	2	9%
NAGALAND	71	13	14	4	31	11	14	5	31	0	0%
ODISHA	496	57	113	52	222	76	101	38	214	8	4%
PUDUCHERRY	239	33	60	6	99	36	49	18	103	-5	-5%
PUNJAB	1646	153	260	147	560	251	335	125	711	-151	-27%
RAJASTHAN	1756	197	291	163	651	268	357	134	759	-108	-17%
SIKKIM	87	9	18	2	29	13	18	7	38	-8	-29%
TAMILNADU	1950	410	485	100	995	297	397	148	842	153	15%
TELANGANA	640	162	170	83	416	98	130	49	277	139	33%
TRIPURA	163	31	26	4	61	25	33	12	70	-9	-15%
UTTAR PRADESH	3576	422	720	287	1429	545	727	272	1545	-115	-8%
UTTARAKHAND	509	66	97	36	199	78	103	39	220	-21	-10%
WESTBENGAL	530	66	121	39	226	81	108	40	229	-3	-1%

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENT AGE
TOTAL	34242	5220	6966	2606	14793	5220	6966	2606	14793		

With pooled FC payout as per segregation of schedule and URS component

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENT AGE
ANDHRAPRADESH	1678	286	526	186	997	233	341	128	702	295	30%
ARUNACHAL PRADESH	92	15	15	4	34	15	19	7	40	-6	-18%
ASSAM	642	126	126	66	318	113	131	49	293	26	8%
BIHAR	1896	364	449	120	934	335	386	144	865	69	7%
CHANDIGARH	132	19	26	5	49	23	27	10	60	-10	-21%
CHHATTISGARH	723	139	149	37	326	123	147	55	325	1	0%
DADRANAGARHVELI	321	76	70	36	181	58	65	24	148	34	19%
DAMANDIV	159	36	42	10	88	24	32	12	69	19	22%
DELHI	1645	219	393	116	728	215	335	125	675	53	7%
GOA	284	34	56	7	97	37	58	22	117	-19	-20%
GUJARAT	3018	463	553	177	1193	512	614	230	1355	-162	-14%
HARYANA	1291	174	233	192	599	181	263	98	542	57	9%
HIMACHAL PRADESH	822	88	118	26	231	100	167	63	330	-99	-43%
J&K	1070	119	190	33	341	134	218	81	433	-92	-27%
JHARKHAND	321	47	71	21	140	46	65	24	136	5	3%
KARNATAKA	1212	333	294	157	784	261	247	92	600	184	24%
KERALA	760	104	192	30	326	108	155	58	320	6	2%
M.P.	2785	348	383	159	891	363	566	212	1142	-251	-28%
MAHARASHTRA	3446	550	657	287	1494	557	701	262	1521	-27	-2%
MANIPUR	76	19	13	5	37	17	15	6	38	-1	-3%
MEGHALAYA	158	28	29	5	63	26	32	12	70	-8	-12%
MIZORAM	48	12	8	3	23	11	10	4	24	-1	-6%
NAGALAND	71	13	14	4	31	12	14	5	32	-1	-3%
ODISHA	496	57	113	52	222	62	101	38	200	22	10%
PUDUCHERRY	239	33	60	6	99	34	49	18	101	-2	-2%
PUNJAB	1646	153	260	147	560	210	335	125	670	-111	-20%
RAJASTHAN	1756	197	291	163	651	245	357	134	736	-85	-13%
SIKKIM	87	9	18	2	29	9	18	7	33	-4	-12%
TAMILNADU	1950	410	485	100	995	382	397	148	927	68	7%
TELANGANA	640	162	170	83	416	138	130	49	317	99	24%
TRIPURA	163	31	26	4	61	29	33	12	75	-14	-22%
UTTAR PRADESH	3576	422	720	287	1429	469	727	272	1468	-39	-3%

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
UTTARAKHAND	509	66	97	36	199	73	103	39	215	-16	-8%
WESTBENGAL	530	66	121	39	226	67	108	40	215	11	5%
TOTAL	34242	5220	6966	2606	14793	5220	6966	2606	14793		

Pooled tariff and Comparison of benefits / losses - October-19

With pooled FC payout as per scheduled energy

FC_POOLED (Rs/kWh)	1.661
VC_POOLED (Rs/kWh)	1.999
TC_POOLED (Rs/kWh)	0.806
Overall pooled tariff (Rs/kWh)	4.466

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
ANDHRAPRADESH	1049	187	294	130	610	174	210	85	468	142	23%
ARUNACHAL PRADESH	77	14	15	4	33	13	15	6	35	-1	-3%
ASSAM	644	121	149	60	329	107	129	52	288	42	13%
BIHAR	1914	374	447	117	938	318	383	154	855	83	9%
CHANDIGARH	95	19	19	5	43	16	19	8	42	0	1%
CHHATTISGARH	879	193	174	45	412	146	176	71	392	19	5%
DADRANAGARHVELI	350	89	71	39	199	58	70	28	156	43	22%
DAMANDIV	160	39	36	12	87	26	32	13	71	16	18%
DELHI	1393	248	316	132	696	231	279	112	622	74	11%
GOA	300	37	56	7	100	50	60	24	134	-34	-34%
GUJARAT	3396	469	629	179	1277	564	679	274	1517	-240	-19%
HARYANA	1330	175	276	195	646	221	266	107	594	52	8%
HIMACHAL PRADESH	469	89	72	25	186	78	94	38	210	-23	-13%
J&K	974	120	207	33	360	162	195	78	435	-75	-21%
JHARKHAND	309	52	66	22	139	51	62	25	138	1	1%
KARNATAKA	1161	342	268	159	769	193	232	94	518	251	33%
KERALA	796	108	190	30	328	132	159	64	355	-27	-8%
M.P.	2791	390	401	177	969	464	558	225	1246	-277	-29%
MAHARASHTRA	3434	599	627	294	1519	570	686	277	1534	-15	-1%
MANIPUR	68	19	13	5	37	11	14	6	30	6	17%

MEGHALAYA	138	26	30	5	62	23	27	11	61	0	0%
MIZORAM	42	11	8	3	23	7	8	3	19	4	17%
NAGALAND	62	13	14	4	30	10	12	5	28	3	9%
ODISHA	352	72	72	56	200	58	70	28	157	42	21%
PUDUCHERRY	244	33	59	6	99	41	49	20	109	-10	-10%
PUNJAB	1485	155	240	137	532	247	297	120	663	-131	-25%
RAJASTHAN	1521	196	253	173	623	253	304	123	679	-56	-9%
SIKKIM	82	10	14	2	27	14	16	7	37	-10	-39%
TAMILNADU	2309	425	578	104	1107	384	462	186	1031	75	7%
TELANGANA	639	170	159	86	415	106	128	52	286	129	31%
TRIPURA	141	28	24	4	57	23	28	11	63	-6	-11%
UTTAR PRADESH	2823	413	493	284	1191	469	564	227	1260	-70	-6%
UTTARAKHAND	447	64	88	35	187	74	89	36	200	-12	-7%
WESTBENGAL	494	79	110	38	227	82	99	40	221	6	3%
TOTAL	32370	5377	6470	2609	14455	5377	6470	2609	14455	0	

With pooled FC payout as per segregation of schedule and URS component

DISCOM	SCHEDULED ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
ANDHRAPRADESH	1049	187	294	130	610	152	210	85	446	165	27%
ARUNACHAL PRADESH	77	14	15	4	33	14	15	6	36	-3	-8%
ASSAM	644	121	149	60	329	121	129	52	301	28	9%
BIHAR	1914	374	447	117	938	361	383	154	898	39	4%
CHANDIGARH	95	19	19	5	43	22	19	8	49	-6	-15%
CHHATTISGARH	879	193	174	45	412	166	176	71	412	-1	0%
DADRANAGARHVELI	350	89	71	39	199	69	70	28	168	32	16%
DAMANDIV	160	39	36	12	87	28	32	13	72	14	17%
DELHI	1393	248	316	132	696	230	279	112	621	75	11%
GOA	300	37	56	7	100	41	60	24	125	-25	-25%
GUJARAT	3396	469	629	179	1277	514	679	274	1466	-190	-15%
HARYANA	1330	175	276	195	646	181	266	107	554	92	14%
HIMACHAL PRADESH	469	89	72	25	186	74	94	38	206	-20	-11%
J&K	974	120	207	33	360	124	195	78	397	-37	-10%
JHARKHAND	309	52	66	22	139	53	62	25	140	-1	0%
KARNATAKA	1161	342	268	159	769	268	232	94	593	176	23%
KERALA	796	108	190	30	328	115	159	64	338	-10	-3%
M.P.	2791	390	401	177	969	413	558	225	1196	-227	-23%
MAHARASHTRA	3434	599	627	294	1519	598	686	277	1561	-42	-3%

MANIPUR	68	19	13	5	37	18	14	6	37	0	0%
MEGHALAYA	138	26	30	5	62	26	27	11	65	-3	-5%
MIZORAM	42	11	8	3	23	11	8	3	23	0	-2%
NAGALAND	62	13	14	4	30	13	12	5	30	0	1%
ODISHA	352	72	72	56	200	75	70	28	174	26	13%
PUDUCHERRY	244	33	59	6	99	37	49	20	105	-6	-6%
PUNJAB	1485	155	240	137	532	207	297	120	624	-92	-17%
RAJASTHAN	1521	196	253	173	623	252	304	123	679	-56	-9%
SIKKIM	82	10	14	2	27	11	16	7	35	-8	-30%
TAMILNADU	2309	425	578	104	1107	412	462	186	1060	47	4%
TELANGANA	639	170	159	86	415	146	128	52	326	89	21%
TRIPURA	141	28	24	4	57	29	28	11	69	-12	-22%
UTTARPRADESH	2823	413	493	284	1191	448	564	227	1240	-49	-4%
UTTARAKHAND	447	64	88	35	187	67	89	36	192	-5	-3%
WESTBENGAL	494	79	110	38	227	81	99	40	220	7	3%
TOTAL	32370	5377	6470	2609	14455	5377	6470	2609	14455	0	

Pooled tariff and Comparison of benefits / losses - November-19

With pooled FC payout as per scheduled energy

FC_POOLED (Rs/kWh)	1.688
VC_POOLED (Rs/kWh)	2.014
TC_POOLED (Rs/kWh)	0.818
Overall pooled tariff (Rs/kWh)	4.519

DISCOM	SCHEDULED ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
ANDHRAPRADESH	1191	183	332	153	669	201	240	97	538	131	20%
ARUNACHAL PRADESH	58	14	13	3	30	10	12	5	26	4	13%
ASSAM	635	121	158	51	330	107	128	52	287	43	13%
BIHAR	1757	369	407	101	877	296	354	144	794	83	9%
CHANDIGARH	71	15	15	4	34	12	14	6	32	2	6%
CHHATTISGARH	932	190	173	40	403	157	188	76	421	-18	-4%
DADRANAGARHVELI	299	81	55	39	175	50	60	24	135	40	23%
DAMANDIV	150	37	31	10	79	25	30	12	68	11	14%
DELHI	1236	273	262	103	637	209	249	101	559	79	12%
GOA	301	37	53	7	98	51	61	25	136	-38	-39%
GUJARAT	3100	443	558	154	1155	523	624	253	1401	-246	-21%
HARYANA	1394	175	308	134	617	235	281	114	630	-13	-2%

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
HIMACHALPRADESH	332	89	51	24	164	56	67	27	150	14	8%
J&K	971	161	200	62	422	164	195	79	439	-16	-4%
JHARKHAND	303	50	67	14	130	51	61	25	137	-7	-5%
KARNATAKA	1197	342	275	185	801	202	241	98	541	260	32%
KERALA	830	109	197	35	342	140	167	68	375	-34	-10%
M.P.	2935	370	439	231	1040	495	591	240	1326	-287	-28%
MAHARASHTRA	2928	539	480	313	1332	494	590	239	1323	9	1%
MANIPUR	73	19	15	6	40	12	15	6	33	7	17%
MEGHALAYA	126	25	31	8	65	21	25	10	57	8	12%
MIZORAM	40	11	9	4	24	7	8	3	18	6	24%
NAGALAND	58	12	14	4	31	10	12	5	26	4	14%
ODISHA	381	70	80	50	201	64	77	31	172	29	14%
PUDUCHERRY	230	32	56	6	94	39	46	19	104	-10	-10%
PUNJAB	1441	155	236	76	467	243	290	118	651	-184	-39%
RAJASTHAN	1433	205	252	187	644	242	289	117	648	-4	-1%
SIKKIM	61	10	12	1	22	10	12	5	27	-5	-22%
TAMILNADU	2432	427	618	123	1169	410	490	199	1099	70	6%
TELANGANA	909	172	240	103	515	153	183	74	411	104	20%
TRIPURA	109	27	18	4	49	18	22	9	49	0	0%
UTTARPRADESH	2729	428	500	273	1201	461	550	223	1233	-33	-3%
UTTARAKHAND	398	62	77	44	183	67	80	33	180	3	2%
WESTBENGAL	492	68	116	28	212	83	99	40	222	-11	-5%
TOTAL	31534	5322	6350	2578	14250	5322	6350	2578	14250		

With pooled FC payout as per segregation of schedule and URS component

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
ANDHRAPRADESH	1191	183	332	153	669	164	240	97	501	167	25%
ARUNACHALPRADESH	58	14	13	3	30	13	12	5	30	0	1%
ASSAM	635	121	158	51	330	119	128	52	298	31	10%
BIHAR	1757	369	407	101	877	354	354	144	851	25	3%
CHANDIGARH	71	15	15	4	34	15	14	6	35	-1	-2%
CHHATTISGARH	932	190	173	40	403	173	188	76	437	-34	-8%
DADRANAGARHVELI	299	81	55	39	175	65	60	24	149	26	15%
DAMANDIV	150	37	31	10	79	27	30	12	70	9	11%
DELHI	1236	273	262	103	637	227	249	101	577	60	9%

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
GOA	301	37	53	7	98	42	61	25	127	-29	-30%
GUJARAT	3100	443	558	154	1155	500	624	253	1378	-223	-19%
HARYANA	1394	175	308	134	617	169	281	114	563	53	9%
HIMACHALPRADESH	332	89	51	24	164	64	67	27	158	6	3%
J&K	971	161	200	62	422	164	195	79	439	-17	-4%
JHARKHAND	303	50	67	14	130	51	61	25	137	-7	-5%
KARNATAKA	1197	342	275	185	801	268	241	98	606	195	24%
KERALA	830	109	197	35	342	120	167	68	355	-14	-4%
M.P.	2935	370	439	231	1040	394	591	240	1225	-185	-18%
MAHARASHTRA	2928	539	480	313	1332	532	590	239	1361	-29	-2%
MANIPUR	73	19	15	6	40	18	15	6	39	1	3%
MEGHALAYA	126	25	31	8	65	47	25	10	82	-18	-27%
MIZORAM	40	11	9	4	24	26	8	3	37	-13	-54%
NAGALAND	58	12	14	4	31	12	12	5	29	2	6%
ODISHA	381	70	80	50	201	90	77	31	198	3	1%
PUDUCHERRY	230	32	56	6	94	38	46	19	103	-9	-9%
PUNJAB	1441	155	236	76	467	188	290	118	596	-129	-28%
RAJASTHAN	1433	205	252	187	644	233	289	117	639	5	1%
SIKKIM	61	10	12	1	22	10	12	5	27	-5	-20%
TAMILNADU	2432	427	618	123	1169	435	490	199	1124	45	4%
TELANGANA	909	172	240	103	515	158	183	74	415	100	19%
TRIPURA	109	27	18	4	49	28	22	9	59	-10	-20%
UTTARPRADESH	2729	428	500	273	1201	444	550	223	1217	-16	-1%
UTTARAKHAND	398	62	77	44	183	62	80	33	175	8	4%
WESTBENGAL	492	68	116	28	212	71	99	40	210	1	1%
TOTAL	31534	5322	6350	2578	14250	5322	6350	2578	14250	0	

Pooled tariff and Comparison of benefits / losses - December-19

With pooled FC payout as per scheduled energy

FC_POOLED (Rs/kWh)	1.629
VC_POOLED (Rs/kWh)	2.044
TC_POOLED (Rs/kWh)	0.786
Overall pooled tariff (Rs/kWh)	4.459

DISCOM	SCHEDULED ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
ANDHRAPRADESH	1271	186	358	149	694	207	260	100	567	128	18%
ARUNACHALPRADESH	62	14	16	3	32	10	13	5	28	5	15%
ASSAM	618	118	159	59	336	101	126	49	275	60	18%
BIHAR	1748	369	423	105	897	285	357	137	779	118	13%
CHANDIGARH	74	15	15	4	35	12	15	6	33	2	5%
CHHATTISGARH	845	164	150	40	353	138	173	66	377	-24	-7%
DADRANAGARHVELI	349	82	69	44	195	57	71	27	155	40	20%
DAMANDI V	161	38	35	10	83	26	33	13	72	11	13%
DELHI	1316	265	287	103	654	214	269	103	587	67	10%
GOA	308	37	52	10	100	50	63	24	137	-38	-38%
GUJARAT	3174	444	560	154	1,158	517	649	249	1,415	-257	-22%
HARYANA	1275	125	261	108	494	208	261	100	568	-75	-15%
HIMACHAL PRADESH	294	135	46	28	209	48	60	23	131	78	37%
J&K	972	159	191	62	413	158	199	76	434	-21	-5%
JHARKHAND	319	51	71	14	136	52	65	25	142	-6	-5%
KARNATAKA	1268	351	300	185	837	206	259	100	565	272	32%
KERALA	910	112	219	35	365	148	186	71	406	-40	-11%
M.P.	2782	363	399	229	990	453	569	219	1,240	-250	-25%
MAHARASHTRA	3390	539	594	313	1,446	552	693	266	1,512	-66	-5%
MANIPUR	65	18	14	6	39	11	13	5	29	10	25%
MEGHALAYA	123	25	31	8	64	20	25	10	55	10	15%
MIZORAM	45	11	11	4	26	7	9	4	20	6	23%
NAGALAND	63	12	16	4	32	10	13	5	28	4	13%
ODISHA	536	80	113	47	240	87	109	42	239	1	0%
PUDUCHERRY	225	34	54	6	95	37	46	18	100	-6	-6%
PUNJAB	1498	155	249	76	480	244	306	118	668	-188	-39%
RAJASTHAN	1470	206	263	187	656	239	301	115	655	0	0%
SIKKIM	63	10	13	1	24	10	13	5	28	-4	-15%
TAMILNADU	2282	422	590	123	1,134	372	467	179	1,017	117	10%
TELANGANA	1384	187	390	106	684	225	283	109	617	66	10%
TRIPURA	111	26	19	4	50	18	23	9	50	0	0%

DISCOM	SCHEDULED ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
UTTARPRAD ESH	2760	444	510	272	1,226	450	564	217	1,231	-5	0%
UTTARAKH AND	390	64	76	44	183	64	80	31	174	9	5%
WESTBEN GAL	584	69	139	28	236	95	119	46	260	-24	-10%
TOTAL	32733	5,332	6,692	2,571	14,595	5,332	6,692	2,571	14,595		

With pooled FC payout as per segregation of schedule and URS component

DISCOM	SCHEDULED ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
ANDHRAPRA D ESH	1271	186	358	149	694	172	260	100	532	162	23%
ARUNACHAL PRA D ESH	62	14	16	3	32	13	13	5	31	2	6%
ASSAM	618	118	159	59	336	133	126	49	308	28	8%
BIHAR	1748	369	423	105	897	371	357	137	866	32	4%
CHANDIGARH	74	15	15	4	35	14	15	6	35	-1	-2%
CHHATTISGAR D	845	164	150	40	353	150	173	66	389	-36	-10%
DADRANAGAR HAVELI	349	82	69	44	195	82	71	27	181	14	7%
DAMANDIV	161	38	35	10	83	47	33	13	93	-10	-12%
DELHI	1316	265	287	103	654	223	269	103	596	59	9%
GOA	308	37	52	10	100	42	63	24	129	-29	-29%
GUJARAT	3174	444	560	154	1158	498	649	249	1396	-238	-21%
HARYANA	1275	125	261	108	494	111	261	100	472	22	5%
HIMACHALPRA D ESH	294	135	46	28	209	112	60	23	195	14	7%
J&K	972	159	191	62	413	158	199	76	433	-20	-5%
JHARKHAND	319	51	71	14	136	52	65	25	143	-7	-5%
KARNATAKA	1268	351	300	185	837	283	259	100	642	195	23%
KERALA	910	112	219	35	365	120	186	71	378	-12	-3%
M.P.	2782	363	399	229	990	384	569	219	1172	-181	-18%
MAHARASHTRA	3390	539	594	313	1446	542	693	266	1502	-56	-4%
MANIPUR	65	18	14	6	39	17	13	5	36	3	7%
MEGHALAYA	123	25	31	8	64	25	25	10	60	5	8%
MIZORAM	45	11	11	4	26	11	9	4	24	2	9%
NAGALAND	63	12	16	4	32	12	13	5	30	3	8%
ODISHA	536	80	113	47	240	82	109	42	234	6	2%
PUDUCHERRY	225	34	54	6	95	39	46	18	102	-8	-8%
PUNJAB	1498	155	249	76	480	185	306	118	609	-129	-27%
RAJASTHAN	1470	206	263	187	656	232	301	115	648	8	1%

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
SIKKIM	63	10	13	1	24	10	13	5	28	-3	-14%
TAMILNADU	2282	422	590	123	1134	415	467	179	1060	74	7%
TELANGANA	1384	187	390	106	684	176	283	109	568	115	17%
TRIPURA	111	26	19	4	50	28	23	9	59	-10	-19%
UTTARPRADESH	2760	444	510	272	1226	457	564	217	1238	-12	-1%
UTTARAKHAND	390	64	76	44	183	62	80	31	172	10	6%
WESTBENGAL	584	69	139	28	236	72	119	46	237	-1	-1%
TOTAL	32733	5332	6692	2571	14595	5332	6692	2571	14595	0	

Pooled tariff and Comparison of benefits / losses - January-20

With pooled FC payout as per scheduled energy

FC_POOLED (Rs/kWh)	1.585
VC_POOLED (Rs/kWh)	2.072
TC_POOLED (Rs/kWh)	0.771
Overall pooled tariff (Rs/kWh)	4.428

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
ANDHRAPRADESH	1367	189	374	141	704	217	283	105	605	99	14%
ARUNACHAL PRADESH	56	14	14	3	32	9	12	4	25	7	22%
ASSAM	614	120	156	48	324	97	127	47	272	52	16%
BIHAR	1848	368	452	81	902	293	383	143	818	84	9%
CHANDIGARH	78	12	16	3	32	12	16	6	35	-3	-8%
CHHATTISGARH	957	196	176	43	415	152	198	74	424	-9	-2%
DADRANAGARHVELI	362	80	70	35	185	57	75	28	160	25	14%
DAMANDIV	168	35	36	8	79	27	35	13	74	5	6%
DELHI	1428	264	326	118	709	226	296	110	632	76	11%
GOA	324	39	56	9	104	51	67	25	143	-39	-38%
GUJARAT	3383	478	617	189	1284	536	701	261	1498	-214	-17%
HARYANA	1262	180	243	129	553	200	261	97	559	-6	-1%
HIMACHAL PRADESH	284	80	45	24	148	45	59	22	126	22	15%
J&K	1097	161	216	52	430	174	227	85	486	-56	-13%
JHARKHAND	302	48	72	15	135	48	63	23	134	1	1%
KARNATAKA	1602	380	397	228	1004	254	332	124	709	295	29%
KERALA	926	110	227	38	375	147	192	71	410	-35	-9%

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
M.P.	2816	376	411	221	1008	446	583	217	1247	-239	-24%
MAHARASHTRA	3538	561	630	325	1516	561	733	273	1567	-50	-3%
MANIPUR	51	19	11	6	36	8	11	4	23	13	36%
MEGHALAYA	130	26	32	7	65	21	27	10	58	7	11%
MIZORAM	53	11	14	4	29	8	11	4	23	5	18%
NAGALAND	60	12	15	6	33	10	12	5	27	7	20%
ODISHA	460	70	104	61	234	73	95	35	204	31	13%
PUDUCHERRY	225	30	55	5	90	36	47	17	100	-9	-10%
PUNJAB	1533	167	251	85	503	243	318	118	679	-176	-35%
RAJASTHAN	1537	209	277	206	692	244	318	119	681	12	2%
SIKKIM	55	9	12	2	23	9	11	4	24	-1	-6%
TAMILNADU	2465	423	642	135	1201	391	511	190	1092	109	9%
TELANGANA	1472	183	406	100	689	233	305	113	652	37	5%
TRIPURA	123	27	22	4	53	19	25	9	54	-2	-3%
UTTARPRADESH	2764	428	510	231	1169	438	573	213	1224	-55	-5%
UTTARAKHAND	383	57	73	54	184	61	79	30	169	15	8%
WESTBENGAL	524	65	136	23	224	83	108	40	232	-8	-4%
TOTAL	34247	5429	7094	2641	15164	5429	7094	2641	15164	0	

With pooled FC payout as per segregation of schedule and URS component

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
ANDHRAPRADESH	1367	189	374	141	704	173	283	105	562	142	20%
ARUNACHAL PRADESH	56	14	14	3	32	13	12	4	29	3	11%
ASSAM	614	120	156	48	324	115	127	47	289	35	11%
BIHAR	1848	368	452	81	902	371	383	143	897	5	1%
CHANDIGARH	78	12	16	3	32	16	16	6	39	-7	-21%
CHHATTISGARH	957	196	176	43	415	180	198	74	452	-37	-9%
DADRANAGARHVELI	362	80	70	35	185	66	75	28	169	16	9%
DAMANDIV	168	35	36	8	79	27	35	13	74	5	6%
DELHI	1428	264	326	118	709	221	296	110	627	82	12%
GOA	324	39	56	9	104	43	67	25	135	-31	-29%
GUJARAT	3383	478	617	189	1284	539	701	261	1501	-217	-17%
HARYANA	1262	180	243	129	553	142	261	97	501	52	9%
HIMACHAL PRADESH	284	80	45	24	148	93	59	22	173	-25	-17%
J&K	1097	161	216	52	430	152	227	85	464	-34	-8%
JHARKHAND	302	48	72	15	135	51	63	23	137	-2	-2%

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
KARNATAKA	1602	380	397	228	1004	301	332	124	756	248	25%
KERALA	926	110	227	38	375	123	192	71	387	-11	-3%
M.P.	2816	376	411	221	1008	413	583	217	1214	-206	-20%
MAHARASHTRA	3538	561	630	325	1516	549	733	273	1554	-38	-3%
MANIPUR	51	19	11	6	36	17	11	4	31	4	12%
MEGHALAYA	130	26	32	7	65	25	27	10	62	3	5%
MIZORAM	53	11	14	4	29	11	11	4	26	3	10%
NAGALAND	60	12	15	6	33	12	12	5	29	5	14%
ODISHA	460	70	104	61	234	76	95	35	206	28	12%
PUDUCHERRY	225	30	55	5	90	37	47	17	101	-10	-12%
PUNJAB	1533	167	251	85	503	209	318	118	645	-142	-28%
RAJASTHAN	1537	209	277	206	692	242	318	119	679	13	2%
SIKKIM	55	9	12	2	23	9	11	4	25	-2	-9%
TAMILNADU	2465	423	642	135	1201	435	511	190	1136	65	5%
TELANGANA	1472	183	406	100	689	177	305	113	595	93	14%
TRIPURA	123	27	22	4	53	28	25	9	63	-10	-19%
UTTARPRADESH	2764	428	510	231	1169	436	573	213	1221	-52	-4%
UTTARAKHAND	383	57	73	54	184	58	79	30	167	17	9%
WESTBENGAL	524	65	136	23	224	70	108	40	219	5	2%
TOTAL	34247	5429	7094	2641	15164	5429	7094	2641	15164	0	

Pooled tariff and Comparison of benefits / losses - February-20

With pooled FC payout as per scheduled energy

FC_POOLED (Rs/kWh)	1.568
VC_POOLED (Rs/kWh)	2.130
TC_POOLED (Rs/kWh)	0.788
Overall pooled tariff (Rs/kWh)	4.487

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
ANDHRAPRADESH	1334	180	369	141	691	209	284	105	598	92	13%
ARUNACHAL PRADESH	47	12	13	3	28	7	10	4	21	7	26%
ASSAM	543	109	150	48	308	85	116	43	243	64	21%
BIHAR	1608	333	411	81	825	252	342	127	721	103	13%
CHANDIGARH	71	14	15	4	32	11	15	6	32	0	1%
CHHATTISGARH	952	195	179	46	420	149	203	75	427	-7	-2%

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
DADRANAGARHVELI	374	75	76	36	187	59	80	29	168	20	10%
DAMANDIV	158	30	34	9	72	25	34	12	71	2	2%
DELHI	1273	266	272	111	649	200	271	100	571	78	12%
GOA	300	38	56	10	103	47	64	24	134	-31	-31%
GUJARAT	3272	489	620	193	1302	513	697	258	1468	-166	-13%
HARYANA	1319	134	279	93	505	207	281	104	592	-87	-17%
HIMACHALPRADESH	258	119	40	24	182	40	55	20	116	66	36%
J&K	1000	149	198	52	400	157	213	79	449	-49	-12%
JHARKHAND	288	45	69	15	129	45	61	23	129	0	0%
KARNATAKA	1944	340	529	226	1095	305	414	153	872	223	20%
KERALA	909	104	225	38	368	143	194	72	408	-40	-11%
M.P.	3155	427	512	236	1175	495	672	249	1415	-240	-20%
MAHARASHTRA	3457	558	648	328	1534	542	736	273	1551	-17	-1%
MANIPUR	31	17	7	6	30	5	7	2	14	16	53%
MEGHALAYA	105	22	29	7	59	17	22	8	47	11	19%
MIZORAM	49	10	14	4	28	8	11	4	22	6	21%
NAGALAND	47	11	13	6	30	7	10	4	21	8	28%
ODISHA	374	65	83	56	205	59	80	30	168	37	18%
PUDUCHERRY	229	33	56	5	94	36	49	18	103	-9	-10%
PUNJAB	1426	146	235	106	487	224	304	112	640	-153	-31%
RAJASTHAN	1586	189	287	220	696	249	338	125	712	-15	-2%
SIKKIM	49	9	11	2	21	8	10	4	22	-1	-3%
TAMILNADU	2388	412	619	135	1166	375	509	188	1071	95	8%
TELANGANA	1507	178	418	101	697	236	321	119	676	21	3%
TRIPURA	90	22	19	4	44	14	19	7	40	4	8%
UTTARPRADESH	2584	415	471	223	1109	405	550	204	1159	-50	-4%
UTTARAKHAND	351	60	68	56	184	55	75	28	158	27	14%
WESTBENGAL	538	66	138	23	227	84	115	42	241	-14	-6%
TOTAL	33616	5272	7160	2650	15082	5272	7160	2650	15082		

With pooled FC payout as per segregation of schedule and URS component

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
ANDHRAPRADESH	1334	180	369	141	691	180	284	105	569	122	18%
ARUNACHALPRADESH	47	12	13	3	28	12	10	4	25	3	11%
ASSAM	543	109	150	48	308	105	116	43	263	44	14%
BIHAR	1608	333	411	81	825	326	342	127	795	30	4%

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
CHANDIGARH	71	14	15	4	32	15	15	6	36	-4	-12%
CHHATTISGARH	952	195	179	46	420	194	203	75	471	-52	-12%
DADRANAGARHVELI	374	75	76	36	187	68	80	29	177	10	5%
DAMANDIV	158	30	34	9	72	25	34	12	72	1	1%
DELHI	1273	266	272	111	649	205	271	100	577	73	11%
GOA	300	38	56	10	103	41	64	24	129	-26	-25%
GUJARAT	3272	489	620	193	1302	547	697	258	1502	-200	-15%
HARYANA	1319	134	279	93	505	104	281	104	489	16	3%
HIMACHALPRADESH	258	119	40	24	182	112	55	20	187	-5	-3%
J&K	1000	149	198	52	400	137	213	79	429	-29	-7%
JHARKHAND	288	45	69	15	129	45	61	23	129	0	0%
KARNATAKA	1944	340	529	226	1095	320	414	153	887	208	19%
KERALA	909	104	225	38	368	117	194	72	382	-14	-4%
M.P.	3155	427	512	236	1175	441	672	249	1362	-187	-16%
MAHARASHTRA	3457	558	648	328	1534	560	736	273	1569	-35	-2%
MANIPUR	31	17	7	6	30	15	7	2	24	5	18%
MEGHALAYA	105	22	29	7	59	22	22	8	53	6	10%
MIZORAM	49	10	14	4	28	10	11	4	24	4	14%
NAGALAND	47	11	13	6	30	11	10	4	24	5	18%
ODISHA	374	65	83	56	205	68	80	30	178	27	13%
PUDUCHERRY	229	33	56	5	94	36	49	18	103	-10	-10%
PUNJAB	1426	146	235	106	487	183	304	112	599	-112	-23%
RAJASTHAN	1586	189	287	220	696	216	338	125	679	17	2%
SIKKIM	49	9	11	2	21	8	10	4	22	-1	-5%
TAMILNADU	2388	412	619	135	1166	414	509	188	1110	56	5%
TELANGANA	1507	178	418	101	697	180	321	119	620	77	11%
TRIPURA	90	22	19	4	44	23	19	7	49	-5	-11%
UTTARPRADESH	2584	415	471	223	1109	410	550	204	1164	-54	-5%
UTTARAKHAND	351	60	68	56	184	55	75	28	157	27	15%
WESTBENGAL	538	66	138	23	227	67	115	42	224	3	1%
TOTAL	33616	5272	7160	2650	15082	5272	7160	2650	15082	0	

Pooled tariff and Comparison of benefits / losses - March-20

With pooled FC payout as per scheduled energy

FC_POOLED (Rs/kWh)	1.687
VC_POOLED (Rs/kWh)	2.104

TC_POOLED (Rs/kWh)	0.790
Overall pooled tariff (Rs/kWh)	4.581

DISCOM	SCHEDULED_ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
ANDHRAPRADESH	1350	230	374	143	748	228	284	107	619	129	17%
ARUNACHAL PRADESH	16	13	4	3	20	3	3	1	8	13	63%
ASSAM	145	113	33	48	195	24	30	11	66	129	66%
BIHAR	1884	434	479	83	996	318	396	149	863	133	13%
CHANDIGARH	76	14	15	4	33	13	16	6	35	-2	-6%
CHHATTISGARH	894	209	166	46	422	151	188	71	409	13	3%
DADRANAGARHVELI	307	96	67	38	201	52	65	24	141	60	30%
DAMANDIV	143	42	32	9	83	24	30	11	65	18	21%
DELHI	1345	275	275	111	662	227	283	106	616	45	7%
GOA	319	42	57	9	108	54	67	25	146	-39	-36%
GUJARAT	3402	436	644	193	1273	574	716	269	1558	-285	-22%
HARYANA	1322	160	264	152	576	223	278	104	605	-30	-5%
HIMACHAL PRADESH	313	82	48	22	152	53	66	25	143	9	6%
J&K	1091	159	206	52	418	184	229	86	500	-82	-20%
JHARKHAND	354	77	82	16	176	60	75	28	162	13	8%
KARNATAKA	2172	374	608	222	1204	366	457	171	995	209	17%
KERALA	959	118	236	35	390	162	202	76	439	-50	-13%
M.P.	2765	450	412	236	1099	467	582	218	1266	-168	-15%
MAHARASHTRA	3509	615	655	327	1597	592	738	277	1607	-10	-1%
MANIPUR	12	17	3	6	26	2	3	1	6	20	78%
MEGHALAYA	67	23	23	7	53	11	14	5	31	22	42%
MIZORAM	49	11	13	4	27	8	10	4	22	5	17%
NAGALAND	55	11	14	6	32	9	11	4	25	7	21%
ODISHA	453	120	77	79	275	76	95	36	207	68	25%
PUDUCHERRY	231	41	55	5	101	39	49	18	106	-4	-4%
PUNJAB	1489	131	242	106	480	251	313	118	682	-202	-42%
RAJASTHAN	1584	186	275	220	681	267	333	125	726	-45	-7%
SIKKIM	63	34	13	2	49	11	13	5	29	20	41%
TAMILNADU	2886	448	741	125	1314	487	607	228	1322	-8	-1%
TELANGANA	1524	232	417	98	747	257	320	120	698	49	7%
TRIPURA	94	22	17	1	41	16	20	7	43	-2	-4%
UTTAR PRADESH	2589	439	479	223	1141	437	545	204	1186	-45	-4%
UTTARAKHAND	367	63	73	56	192	62	77	29	168	23	12%
WESTBENGAL	601	90	144	26	261	101	126	47	275	-14	-6%
TOTAL	34429	5810	7242	2718	15770	5810	7242	2718	15770	0	

With pooled FC payout as per segregation of schedule and URS component

DISCOM	SCHEDULED ENERGY (MUs)	BEFORE_POOLED_TARIFF_SCHEME (Rs CRORE)				AFTER_POOLED_TARIFF_SCHEME (Rs CRORE)				Benefits with Pooled Tariff	
		FC	VC	TC	TOTAL	FC	VC	TC	TOTAL	Rs CRORE	PERCENTAGE
ANDHRAPRADESH	1350	230	374	143	748	232	284	107	623	125	17%
ARUNACHALPRADESH	16	13	4	3	20	8	3	1	13	7	36%
ASSAM	145	113	33	48	195	66	30	11	107	87	45%
BIHAR	1884	434	479	83	996	362	396	149	907	89	9%
CHANDIGARH	76	14	15	4	33	20	16	6	42	-9	-26%
CHHATTISGARH	894	209	166	46	422	193	188	71	451	-29	-7%
DADRANAGARHAWALI	307	96	67	38	201	76	65	24	164	37	18%
DAMANDIV	143	42	32	9	83	30	30	11	71	12	14%
DELHI	1345	275	275	111	662	229	283	106	618	44	7%
GOA	319	42	57	9	108	46	67	25	138	-31	-29%
GUJARAT	3402	436	644	193	1273	508	716	269	1492	-219	-17%
HARYANA	1322	160	264	152	576	171	278	104	554	22	4%
HIMACHALPRADESH	313	82	48	22	152	69	66	25	159	-7	-5%
J&K	1091	159	206	52	418	164	229	86	480	-62	-15%
JHARKHAND	354	77	82	16	176	74	75	28	176	0	0%
KARNATAKA	2172	374	608	222	1204	371	457	171	1000	204	17%
KERALA	959	118	236	35	390	131	202	76	409	-19	-5%
M.P.	2765	450	412	236	1099	460	582	218	1260	-162	-15%
MAHARASHTRA	3509	615	655	327	1597	606	738	277	1621	-24	-2%
MANIPUR	12	17	3	6	26	10	3	1	13	12	47%
MEGHALAYA	67	23	23	7	53	14	14	5	33	20	38%
MIZORAM	49	11	13	4	27	6	10	4	20	7	26%
NAGALAND	55	11	14	6	32	7	11	4	23	9	28%
ODISHA	453	120	77	79	275	129	95	36	260	16	6%
PUDUCHERRY	231	41	55	5	101	41	49	18	108	-6	-6%
PUNJAB	1489	131	242	106	480	197	313	118	628	-148	-31%
RAJASTHAN	1584	186	275	220	681	232	333	125	690	-9	-1%
SIKKIM	63	34	13	2	49	47	13	5	65	-16	-33%
TAMILNADU	2886	448	741	125	1314	466	607	228	1301	13	1%
TELANGANA	1524	232	417	98	747	233	320	120	674	73	10%
TRIPURA	94	22	17	1	41	15	20	7	42	-1	-2%
UTTARPRADESH	2589	439	479	223	1141	446	545	204	1195	-54	-5%
UTTARAKHAND	367	63	73	56	192	65	77	29	171	21	11%
WESTBENGAL	601	90	144	26	261	88	126	47	262	-1	0%
TOTAL	34429	5810	7242	2718	15770	5810	7242	2718	15770		

