

Comments and Suggestions to the Central Electricity Authority regarding amendment to Furnishing of Statistics, Returns and Information Regulations, 2007

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CEA vide its public notice dated February 2020, invited public comments on the addition of four new data formats for furnishing information under the Central Electricity Authority (Furnishing of Statistics, Returns and Information) Regulations, 2007. The suggested formats which are proposed to be added are detailed in Table 1.

Table 1: List of data formats proposed for addition

Format Number	Description
Format-21A	Annual data of industries having electricity demand of 0.5 MW and above
Format-21B	Annual data of captive power plants having installed capacity of 0.5 mw and above
Format 66	Report on power purchase agreement by independent power producers
Format 67	Progress of reform measures as per the Electricity Act, 2003, National Electricity Policy, 2005 and National Tariff Policy, 2016

Given the rapid changes in the sector, especially related to open access and captive growth and increased renewable energy (RE) procurement, changes in industrial consumption and power procurement need to be tracked. Further, tracing progress across states with respect to key reform milestones will provide insights into crucial trends and challenges being faced in states. Thus, the four new formats could potentially provide important insights to inform future policy making.

However, the formats specified in the draft do not adequately capture critical challenges and trends faced by various stakeholders in the power sector. Further, some of the data specifications seem ambiguous and could be subject to interpretation. Thus, it is likely that the agencies interpret and report information differently and in varying amount of detail making comparison across states challenging. This is particularly the case for the proposed Format 67. In addition, the Format 67 does not specify which agency is the responsible for filling up the form. For this format, some questions are better answered if directed to the energy department and in other cases the STU or the DISCOMs. This also needs to be clarified by CEA to ensure efficient data collection and accurate reporting.

CEA's initiative to ensure e-registration of all generators with capacity > 0.5 MW¹ as well its recent tracking of RE generation capacity² are progressive steps which will aid better planning and informed policy making. It is crucial that the new formats are also consistent with these parallel efforts to ensure data collection and registration. Further, CEA's vast data repository should be more available in more accessible and processable formats to help shape public discourse and policy making.

In this context, our comments are suggestions focus on reducing ambiguity and capturing key trends in the sector while restricting the data formats to information that can be easily provided by state energy

¹ http://cea.nic.in/reports/others/planning/pslf/registration_units.pdf

² Especially recent reporting of plant-wise details of RE projects and source-wise/ state-wise information on RE generation.

departments, utilities or industries. Specific suggestions are given for each row/ column of the suggested formats below. Please note that suggested edits are marked in *green italics*.

1 Annual data of consumers and captive power plants having electricity demand of 0.5 MW and above (Format-21A and Format-21B)

Collating information from consumers using captive power and from captive generating plants (CGP) is crucial to understand trends in captive use. In addition, the data could also provide insights into grid services provided by the utility. Many captive consumers are group captive which implies that several captive consumers share a CGP to meet consumption. Seeking the same generation and consumption information (as currently detailed in Format-21A and B) from both parties may not help identify trends in an effective manner. Our suggestions are to modify the formats and split the information such that consumption related information is obtained from the consumer and generation related details from the CGP. In this context, Table 1 captures specific suggestions with respect to Format-21A and B.

Table 2: Suggested edits to Format-21A and Format-21B

Format	Format Field	Rationale for Suggested edit
	General Details	
Format-21A	Annual data of <i>industries captive consumers</i> having <i>electricity demand sanctioned load</i> of 0.5 MW and above	Captive power consumption is not restricted to industries, especially with renewable energy based captive consumption. The format should clarify that demand refers to sanctioned load. This will reduce ambiguity on who is eligible.
Format-21A	<i>Contracted demand with the DISCOM in MW</i>	This is a new suggested question after Question 3. To assess the dependence of the captive consumer on the electricity distribution company (DISCOM).
Format-21A and B	<i>Any form of back-up power arrangement (diesel genset/ battery-based system etc.,) if so, which form?</i>	This is a new suggested question after Question 3. To note any back-up power arrangement used by the consumer or generator to understand dependence on grid services.
Format-21A	<i>Is CGP arrangement group captive? Yes/ No</i>	This is a new suggested question after Question 3. To ensure mapping to generator and understand consumption patterns, it is important to discern if a captive consumer is group captive or not.
Format-21A	<i>Interconnection voltage of consumer</i>	This is a new suggested question after Question 3. Would provide crucial insights for grid services and loss estimation for the utility.
Format-21B	<i>Interconnection voltage of generator</i>	

Format	Format Field	Rationale for Suggested edit
	Details of the associated CGP	
<i>Format-21A and B</i>	<i>Registration Number of CPP (as per the e-registration portal)</i>	The unique registration number of the CGP as envisaged under the "Framework for registration of Generation Units" ³ should also be provided. This will make identifying the CPP easier and would be useful for mapping group captive consumption.
Format-21A	Installed <i>Contracted</i> capacity (MW)	For group captive consumers, the installed and contracted capacity will differ. As the installed capacity is being captured in Format 21B, it is suggested that contracted capacity is captured here.
Format-21A	Data of Electrical Energy on Monthly Basis Gross Generation (A), Aux. Consumption (B) <i>Net Generation (C=A-B)</i> <i>Energy obtained from captive generating plant (A)</i> Energy Exported to the Grid (D) <i>DISCOM (B)</i> <i>Energy exported to power exchanges, bilateral traders and open access consumers (C)</i> Energy Imported from the Grid (E) <i>DISCOM (D)</i> <i>Energy imported from power exchanges, bilateral traders and open access generators (E)</i> Energy Consumed by the Industry (C+E-D) <i>(A-B-C+D+E)</i>	Information on the gross generation, auxiliary consumption and net generation is being captured in Format 21B for the CGP and thus there is no requirement to capture this again. The captive consumer should report energy used by the consumer from captive and other sources in detail. This should include energy procured from the CGP, DISCOMs and via open access as well as energy exported to DISCOMs and via open access in the year.
Format-21B	Data of Electrical Energy on Monthly Basis Gross Generation (A) Aux. Consumption (B) Net Generation (C=A-B) Energy Exported to the Grid (D) Energy Imported from the Grid (E) Energy Consumed by the Industry (C+E-D) <i>Net energy available for captive consumers (C+E-D)</i>	The CGP needs to only capture generation related parameters and any energy import or export from the grid. In case the CGP is not group captive, the information in Format 21A and B would be the same.

2 Report on power purchase agreement by independent power producers (Format 66)

Specific comments and suggestions regarding Format 66 are detailed in Table 1. Our suggested edits and the rationale for the same for each column heading are specified separately.

³ http://cea.nic.in/reports/others/planning/pslf/registration_units.pdf

Table 3: Suggested edits to Format 66

Column	Parameter Specified and Suggested edits	Comment
2, 3	Name of the Company Name of the Project (Unit-wise) <i>Unique Registration ID number</i>	The unique registration number proposed under the "Framework for registration of Generation Units" should also be provided. This will make identification easier.
6	Type of Project (Hydro/PS/ Thermal Coal/Gas/Renewable/ wind/ solar/ <i>bagasse/ small hydro power/ waste to energy</i>)	To ensure detailed reporting for each project, thermal should be split into coal, gas etc. Renewable should be split into wind, solar, bagasse, SHP, etc.
9	Details of PPA: Long-Term/Medium Term (with whom) <i>In case of multiple PPAs for the same unit, details of each PPA to be specified in separate rows.</i>	Multiple rows may be needed per generating unit if multiple PPAs apply for a station. This would be the case for UMMPs for example.
13, 14	Source of Fuel (for Coal based sanction-whether Pit-head / load center based) Fuel Supply Agreement (Yes/No). If Yes, type and duration. <i>In case of multiple fuels/multiple sources of fuels, details for each source to be specified in separate rows.</i> <i>If the unit has contracted imported fuel (coal/LNG), it should be reported in a separate row.</i> <i>Source of fuel should be clearly mentioned.</i> <i>In case of coal: mine, district and subsidiary / company name. In case of gas: field and producing company.</i>	Multiple rows may be needed per generating unit in the case of multiple fuels or multiple sources of fuels. This should be explicitly mentioned in the instructions. Further, the instructions should clearly ensure disaggregated reporting of imported and domestic fuel sources. In case of coal based sources, to ensure standardised reporting, the instructions should clearly state the name of the mine, the district in which the mine is located and the company or subsidiary the mine is owned by. Similar disaggregated reporting should be ensured for gas fields.
New addition for column	<i>Grade of contracted coal (or calorific value of gas) for each generating unit.</i>	Given the issues with coal quality and availability, in addition to tracking the source of coal, it is also crucial to track the grade or calorific value of coal obtained. Multiple rows may be needed for multiple sources.
New Addition for column	<i>Contracted price of fuel and landed price of fuel</i>	The contracted price of fuel and the landed cost of the fuel used should also be tracked in appropriate units.
16	Tariff for the duration of PPA (in separate sheet), showing fixed charge and fuel charge <i>actually paid in the year. Separate reporting of any compensatory tariff actually paid under change in law provisions of the PPA.</i>	Along with the capacity charge and fuel charge actually paid in the year (as opposed to Commission approved tariffs), it is also important to capture any compensatory tariff provided due to change in law provisions of the PPA.

3 Progress of reform measures (Format 67)

The edits as well as the rationale for the suggested edits for Format 67 are detailed in Table 4. To ensure there is clarity on the agency which is to submit the information, an additional column has been added in Table with a suggestion on which agency should ideally answer the question.

Table 4: Suggested edits to Format 67

	Name of the Item	Provision under EA/NEP/ NTP	Please indicate the position (along with suggested edits marked in <i>green italics</i>)	Agency to report this information	Rationale for suggested edit
1	Unbundling of State Electricity Boards	Section - 131 of EA	Whether done or not? <i>If done, state the date when it was initiated.</i> <i>List name of companies and type of licence for all companies formed from unbundling of erstwhile SEB.</i> <i>Status of implementation of transfer scheme, especially with respect to takeover of liabilities.</i>	State Energy Department or its equivalent	Most states have initiated unbundling but the utilities created after unbundling has varied across states. Further, transfer scheme completion, especially transfer of liabilities was also mandated in Section 131 of EA. The status of this should be verified.
2	Appointment of Assessing Officer(AO) & Appellate Authority(AA)	Section 126&127 of EA	Whether AO appointed or not? <i>If post(s) is vacant, period of vacancy to be reported.</i> Whether AA appointed or no? <i>If post(s) is vacant, period of vacancy to be reported.</i>	State Energy Department or its equivalent	In some cases, the post could be vacant for long durations. This should also be captured to understand compliance.
3.	Setting up of Special Courts	Section 153 of EA, 5.4.13 of NEP	Whether Special Courts constituted or not?	State Energy Department or its equivalent	
4	Disposal of Theft cases during the year	Section 154 of EA	i. <i>Consumer category-wise</i> total number of cases reported <i>for each month.</i> ii. <i>Consumer category-wise</i> total number of cases disposed <i>for each month.</i> iii. <i>Total pending cases</i>	Each Distribution Licensee in the state	Monthly and consumer category-wise information can help understand trends in occurrence, build-up and disposal of cases. Further, to aid swift disposal data on pendency is needed.

5	Constitution of State Coordination Forum	Section 166(4) of EA	Whether constituted or not? <i>Number of meetings held in the year?</i> <i>Are minutes of the meetings published?</i>	State Energy Department or its equivalent	Even if constituted, the Coordination Forum is not effective if inactive. Thus, tracking number of meetings is useful. As several key deliberations take place, it is also essential that stakeholders have access to the minutes of the meetings.
6	Constitution of District Level Committee	Section 166(5) of EA	Whether constituted or not? <i>Number of meetings held in the year?</i>	State Energy Department or its equivalent	Even if constituted, the District Level Committees are not effective if inactive. Thus, tracking number of meetings is useful.
7	Rules by State Government	Section 180(2) (a) to (n) of EA	i. Rules on all subjects ii. License & Accounts iii. Accounts only iv. Other subjects v. None List all rules published by the state government or provide web-link on the energy department website where all rules are listed in a consolidated fashion in easily accessible/ searchable manner.	State Energy Department or its equivalent	Many key decisions have taken place by State Governments issuing rules. Statistics on the number of rules may not give an idea of the progress under reforms. In many states the rules are not listed in a consolidated comprehensive and CEA should ask for such a compilation to track reforms.
8	Preparation of Statement of Accounts in consultation with C&AG	Section 104(1) of EA	Whether the Annual Statement of Accounts in consultation with C&AG of the preceding Financial Year prepared or not?	State Energy Department or its equivalent in consultation with the Commission	
9	Preparation of Annual Report	Section 105(1) and (2) of EA	Whether the Annual Report of the preceding Financial Year prepared or not? <i>Has it been tabled before the State Legislature? For which financial year is the latest annual report available? Is the latest annual report available in the regional language? Are all annual reports available on the commission's website?</i>	State Energy Department or its equivalent in consultation with the State Commission	Section 105 is intended to ensure public accountability of the State Commission. Therefore, it is also crucial to check compliance to Section 105 (2) and track if the annual reports are publicly available in an easily accessible manner.

10	State Grid Code	Section 86(1)(h) of EA & Clause 5.3.2 of NEP	Whether State Grid Code notified or not? <i>If so, which year was it notified?</i> <i>Which year was the State Grid Code amended last?</i>	State Energy Department or its equivalent in consultation with the State Commission	State Grid code is a crucial regulation related to planning and operations in the sector. It is crucial to track if it has been revised to incorporate recent changes in the sector.
11	Setting up of Consumer Grievances Redressal Forum (CGRF)	Section 42(5) of EA	i. Whether the CGRF set up or not? If yes <i>i. Number of CGRFs set up by each DISCOM</i> <i>ii. Number of members in each CGRF and number of members representing licensee</i> <i>iii. Consumer category-wise total number of cases registered?</i> <i>iv. Consumer category-wise total number of cases disposed of.</i> <i>v. Consumer category-wise number of pending cases</i> <i>vi. Average time taken to dispose case</i> <i>vii. Total verdicts in favour of complainant</i> <i>viii. Total cases taken up with ombudsman</i> <i>ix. Number of cases where action has been stayed by high court</i>	Each Distribution Licensee in the state in consultation with CGRFs.	CGRFs function better if they are independent and have members other than those from the licensee. To see if the forum is being utilised and it functioning, it is vital to note the number of cases and pendency. It is also important to note if the issues are being escalated to the ombudsman. Further, it is also likely that DISCOMs defer action on verdicts in favour of the complainant by obtaining a stay from the high court which delays compensation payment. Such instances should also be tracked.
12	Standard of Performance (SOP) of Distribution Licensee	Section 57(1) of EA Clause 8 of NTP	i. Whether the Regulations notified by the Regulatory Commission or Not? <i>If yes, which year was it first notified? Which year was it amended last?</i> ii. Whether the SOP notified or not? <i>If yes, which year were the parameters for assessing compliance to standards of performance and compensation thereof revised last?</i>	State Energy Department or its equivalent in consultation with the State Commission	It is crucial to track if the regulations have been revised to incorporate recent changes in the sector, especially with respect to improvement in supply and service quality. Further compensation amounts should also be revised to account for inflation.

13	<p>i) Information regarding level of performance achieved.</p> <p>ii) The number of cases in which compensation was made.</p>	Section 59(1) of EA	<p>i. Whether the level of performance achieved or not?</p> <p>ii. If yes, then mention the percentage of level of performance achieved</p> <ul style="list-style-type: none"> - Above 90 % - Above 75 % to up to 90 % - 50 % to up to 75 % - Below 50 % <p>iii. <i>Whether SoP compliance reports as per Section 59 (2) are published by the State Commission or DISCOMs. If so, the month and year of the latest published report to be specified.</i></p> <p>iv. <i>Total consumer category-wise complaints in the year as captured in SoP reports to be reported for each month.</i></p> <p>v. <i>State three most frequent issues/ reasons for complaints</i></p> <p>vi. <i>Total value of compensation paid (in compliance with SoP regulations) in year and state if compensation amount is recovered from tariffs.</i></p>	Each Distribution Licensee in the state along with inputs from the State Commission	<p>State Commissions are to ensure that the information furnished in Section 59 (1) is published. Almost all SERCs have also specified reporting formats to enable this in their regulations. CEA could track if such reports are being published on a regular basis. As complaints are to be recorded as per the regulations, the number of complaints and the most common reasons for complaints (for example, incorrect billing, faulty meter etc.) should be reported to provide insights into the supply and service quality. As per the regulations, compensation is also to be provided to ensure accountability for service. CEA can track if compensation is indeed being provided and if the compensation is being paid by DISCOMs and is not passed onto consumers as part of the annual revenue requirement.</p>
14	Appointment of Ombudsman	Section 42(6) of EA & Clause 5.13.3 of NEP	<p>i. Whether the Ombudsman appointed or not? <i>Are there multiple ombudsmen in the state? (Yes/No)</i></p> <p><i>Provide the following information for all appointed ombudsmen</i></p> <p>ii. Total number of cases registered</p> <p>iii. Total number of cases disposed off</p> <p>iv. <i>Number of cases pending each year</i></p> <p>v. <i>Average time taken to dispose cases</i></p> <p>vi. <i>Number of cases where action on ombudsman's order has been stayed by courts.</i></p>	State Energy Department or its equivalent in consultation with State Commission	<p>To see if the office is functioning, it is vital to note the pendency as well. Further, it is possible that like the CGRF, ombudsman's decisions are also not implemented in a timely manner due to stays from courts. This should also be captured.</p>

15	Tariff order to be issued within 120 days from receipt of an application	Section 64(3) & (4) of EA	<p>i. Whether the tariff orders issued in the specified time period or Not?</p> <p>ii. If not, the details of tariff orders delays giving the reasons for delays.</p> <p><i>Information regarding tariff process for each licensee/utility in the state including generation, transmission and distribution licensees:</i></p> <p><i>i. Date of receipt of tariff petition/initiation of tariff proceedings</i></p> <p><i>ii. Date of tariff order</i></p> <p><i>iii. If delay in excess of 120 days, record delay (in number of days) and reason for delay</i></p>	State Energy Department or its equivalent in consultation with State Commission	Specific information sought to ensure standardised reporting and to enable comparison across states.
16	Rural Electrification % (Households Electrified)	Clause 5.1.1 of NEP	<p>Progressive percentage of Households electrified over the total rural Households to be electrified:</p> <p><i>i. Total number of electrified households</i></p> <p><i>ii. Number of households to be electrified during the year</i></p> <p><i>iii. Number of households electrified during the year</i></p> <p><i>iv. Number of disconnections of households electrified that have been in the past two years</i></p> <p><i>v. % of electrified rural infrastructure including Public Health Centres, Anganwadis and Schools.</i></p>	State Energy Department or its equivalent	Given that significant progress has been made in household electrification in the recent past, it is vital to not just focus on households but rural electrification as a whole as specified in Clause 5.1 of NEP. In addition to assess the impact of electrification, it is also crucial to track disconnections of recently electricity households due to non-payment of bills etc.
17	Generation Capacity Addition (non-central sector)	Clause 5.2.1 to 5.2.4 of NEP	<p>i. Generation Capacity Addition Planned in MW during the year from all sources/ technologies.</p> <p>ii. Generation Capacity Addition Achieved in MW during the year</p> <p><i>i. Was a demand forecasting and generation planning exercise undertaken? If so, specify methodology used.</i></p> <p><i>ii. Report demand forecasted and actual demand observed in MUs with seasonal and diurnal variation for past 5 years</i></p> <p><i>iii. Report generation capacity addition planned</i></p>	Distribution licensee. In states with multiple DISCOMs, the agency procuring power for all the DISCOMs.	In the current situation, a more rigorous approach is needed for generation and transmission planning. On the generation side, this includes forecasting demand growth using a bottom up approach and determining the desirable capacity addition taking into account value to the electricity system and minimizing overall cost of generation. This exercise should be undertaken in tandem with

			<i>and actually added in MW by type of generation (coal, gas, hydro, solar, wind etc.,) from central, state and private sources in the past five years. vi. Report Generation capacity addition planned in MW by type of generation (coal, solar, wind etc.) from central, state and private sources for next five years</i>		transmission planning (rows 18-20) of Format 67. Data sought for five years in the future and in the past annually to track performance and planning systematically.
18	Transmission capacity added through competitive bidding	Clause 7.1(6) of NTP	i. Whether competitive bidding in transmission implemented? <i>If so, year when first project was competitively bid?</i> ii. If yes, Total Transmission capacity added (<i>in Ckm</i>) during the year. iii. Transmission capacity added (<i>in Ckm</i>) through competitive bidding	State Transmission Utility	Specific information sought to ensure standardised reporting and to enable comparison across states.
19	Transmission Capacity Addition in the State (Private transmission)	Clause 5.3.10 of NEP	i. Transmission Capacity Addition Planned in CKm during the <i>for the next five years (STU, CTU and private)</i> ii. <i>Transmission capacity added in the past five years (STU, CTU and private)</i>	State Transmission Utility	All transmission capacity addition, not just private should be tracked for efficient and timely investments. Data for five years to track performance and planning systematically.
20	Bidding for transmission projects costing above a threshold limit.	Clause 5.3 of NTP (2nd Para)	i) What is the threshold limit specified? ii) Whether intra-state Transmission projects, developed through competitive bidding? iii) <i>Number of projects awarded via competitive bidding</i>	State Transmission Utility	Question 18 only captures capacity added via competitive bidding not the number of projects. Number of projects awarded gives a sense of the extent of use of competitive bidding.
21	Ring fencing of SLDC (Autonomy)	Clause 5.3.7 of NEP	Whether Fully achieved or Partly achieved? <i>Year when fully achieved/ Year when planned to fully achieve (as applicable)</i>	State Transmission Utility	To aid recording of status and future tracking.
22	Open Access in Distribution	5.4.5 of NEP, 5.13 of NTP & Sec. 42, 49 of EA	i. Whether the Regulations have been notified by the Regulatory Commission. <i>Year of latest amendment.</i> ii. <i>Eligibility limit for availing open access (e.g.- 1 MW, 500 kW)</i> # iii. Whether the Regulatory Commission has determined wheeling charges and cross subsidy	State Energy Department or its equivalent in consultation with the State Load Dispatch Centre and the	Open access implementation varies across states which is why is it crucial ask the eligibility limit for consumers to avail open access as it is not 1 MW and above uniformly. Further, many open access consumers have highlighted that processing of

			<p>surcharge.</p> <p>iii-iv. Total number of open access applications received</p> <p>iv-v. Number of open access applications disposed off</p> <p><i>vi. Pending open access applications at the end of the year</i></p> <p><i>vii. Average time taken to process open access applications in the year (separate reporting for short-term an long term open access)</i></p> <p><i>viii. MUs of energy wheeled for open access and captive use (conventional and RE).in the year</i></p>	State Commission.	applications is a time consuming process. So, tracking pendency and average time taken is important. In addition, it is important to track open access and captive wheeling for conventional and renewable energy sources separately.
23	Consumer metering (including agriculture & rural)	Section 5.4.9 & Clause 8.3(5) NTP	<p>Mention the <i>consumer category-wise</i> percentage Metering done:</p> <p>Equal to 100% --</p> <p>Between 75% to 99% ---</p> <p>Between 50% to 74% ---</p> <p>Between 25% to 49% ----</p> <p><i>Similarly, mention consumer category-wise percentage of functioning meters to total metered consumers for each month in the year. Mention number of smart meters and pre-paid smart meters installed by consumer category</i></p>	Each Distribution Licensee in the state	Given the fact that there are non-agricultural consumers which are unmetered, crucial insights could be obtained if information is reported category-wise. In many cases, even if meters are present it is possible that they are not functional which defeats the purpose of metering. Such information should also be recorded. Further, with the major efforts to ensure pre-paid and smart metering underway the number of installations should also be captured.
24	Procurement of power through competitive bidding by/ for each Discom	Clause 5.1 of NTP	<p>i. Whether competitive bidding in procurement of power implemented? If yes,</p> <p>ii. Total power procurement made <i>by technology (coal, solar, etc.)</i> in MW for the year</p> <p>iii. Procurement achieved <i>by technology</i> through competitive bidding in MW for the year</p> <p><i>iv. For each PPA, specify capacity contracted, technology/fuel, net generation, final fixed cost and variable cost paid for the year</i></p>	Distribution licensee. In states with multiple DISCOMs, the agency procuring power for all the DISCOMs.	Information on all capacity contracted through Section 63 will provide crucial insights while tracking reform progress. As many of the tariffs have been revised due to change in law provisions, it is also crucial to track the fixed and variable costs finally paid for given contracted capacity.

25	Operating Norms for distribution network	Clause 5.11(f) of NTP	<p>i. Whether suitable performance norms of operations evolved or not?</p> <p>i. Whether commission has specified norms for operating performance parameters? Which are the norms specified?</p> <p>ii. If norms have been specified, the currently applicable norms and the actual performance should be reported.</p> <p>ii. Has gain and loss sharing based on compliance with the norm been implemented for distribution network related parameters?</p>	Each Distribution Licensee in the state	Typically operating norms are specified in the Tariff or MYT regulations and gain and loss sharing as detailed in Clause 5.11 (f) is also specified. Disambiguation keeping this in account would ensure consistency in information provided.
26	Has SERC introduced Multi Year Tariff (MYT)?	Clause 5.11(h) of NTP & 5.4.4 of NEP Sec. 61 of EA	<p>i. Whether appropriate MYT regulations have been issued by Regulatory Commission or not?</p> <p>ii. First MYT control period?</p> <p>iii. Has tariff been revised under MYT for the current year?</p> <p><i>i. If so, when were they amended last?</i></p> <p><i>ii. What is the date of notification of the latest MYT order for each licensee?</i></p> <p><i>iii. What the duration of the current MYT control period?</i></p> <p>iv. List controllable parameters as defined in the MYT regulations and performance norms specified for each licensee.</p> <p>v. Has performance evaluation based on each norm listed above been carried out in the latest MYT order for each licensee? If not, state the cases where it has not been implemented.</p> <p>vi. Is a gain and loss sharing mechanism defined in the MYT regulations?</p> <p>vii. Has the gain and loss sharing mechanism been employed in the latest MYT order?</p> <p>ix. In case of distribution licensees, whether MYT regulations require submission of business</p>	State Energy Department or its equivalent in consultation with State Commission	Most states have issued MYT regulations but many are not implementing MYT framework in the spirit of the National Tariff Policy to ensure better planning, equitable risk sharing and performance accountability. The suggested edits are to capture the implementation of MYT.

			<p>plan or forecasts for demand and supply estimation?</p> <p>x. If so, has a business plan or forecasts for demand and supply estimation been submitted as part of the tariff proceedings, in compliance with the SERC's MYT regulation?</p>		
27	Benefits under Clean Development Mechanism (CDM)	Clause 5.11(i) of NTP	<p>i. Whether mechanism for sharing of CDM benefits formulated?</p> <p>ii. Are CDM costs allowed as a pass through in tariff? <i>What are the CDM costs during the year?</i></p> <p>iii. No. of cases that have been granted for CDM benefits.</p> <p>iv. Ratio of incentive shared between developers and consumers during the year.</p>	Each generation, distribution and transmission licensee in the state	Specific information sought to ensure standardised reporting and to enable comparison across states.
28	Fixation of purchase of energy through Renewable Energy Sources (RES) including co-generation by March 2022	Clause 6.4(1)(i) of NTP & Section 86(1)(e) of EA	<p>i. Whether Solar and non-solar RPO % target fixed by the Commission?</p> <p>ii. Solar specific RPO target & achievement <i>by DISCOM</i> during year.</p> <p>iii. Non-solar RPO target & achievement <i>by DISCOM</i> during year.</p> <p>iv. <i>Unmet RPO target from previous years carried forward in year (solar and non-solar)</i></p>	Each Distribution Licensee in the state	As there are other obligated entities in the states, it needs to be clarified that compliance is being checked only for DISCOMs as per the NTP. Some SERCs allow for carry forward of RPO targets in case of non-compliance instead of levying the penalty. This should be accounted.
29	Intra-state transmission tariff framework based on factors of voltage, distance, direction and quantum of flow.	Clause 7.1(8) of NTP	Whether intra-state transmission tariff framework based on factors of voltage, distance, direction and quantum of flow has been formulated by the Commission?	State Transmission Utility	

30	Reduction in AT & C/distribution Losses w.r.t. target fixed by the Commission/ <i>State Government</i>	Clause 8.2.1 (2) of NTP	<p>i. % AT&C/distribution losses in the preceding year</p> <p>ii. % Target reduction during the year <i>as specified by the State Government</i></p> <p>iii. % Achieved during the year</p> <p>iv. <i>Actual value of each variable considered while calculating AT&C loss as per CEA methodology⁴, especially receivables and pending subsidies.</i></p> <p><i>% Distribution loss in the year</i></p> <p><i>i. Targeted Distribution loss specified by the SERC</i></p> <p><i>ii. Achieved Distribution loss</i></p>	Each Distribution Licensee in the state	Distribution loss and ATC loss target and achievement should be specified and reported separately as the State Government specifies targets for AT&C losses while SERCs specify distribution loss targets This is because the impact of poor collection efficiency is not to be passed onto consumers in the tariff determination process. Further, specifying each variable used to calculate the composite AT&C loss parameter will provide insights into the root cause for reduction.
31	Reduction in cross subsidy Whether tariff to all consumers is within +/-20% of average cost of supply	Clause 8.3(2) of NTP Sec. 61(g) of EA	<p>i. Whether the Regulatory Commission has notified the roadmap for tariffs within +20% of the average cost of supply.</p> <p>ii. If so, whether compliance ensured in the last completed year?(2014-15)</p> <p><i>i. Provide category-wise Average Billing Rate (ABR) including subsidy (Rs./unit) and Average Cost of Supply (ACOS) (Rs./unit) for each year of the past five years</i></p> <p><i>ii. Provide category-wise % value of ABR/ACOS for each year of the past five years</i></p> <p><i>iii. In addition, report the category-wise cross subsidy (Rs. Crore) for each year of the past five years</i></p> <p>iv. Voltage/category wise cost of supply assessed or not?</p>	Each Distribution Licensee in the state	Reporting of cross-subsidy in tariff orders differs across states. To ensure standardised reporting and comparison, it is essential to ask category-wise information of average tariff and average cost of supply. To understand actual reduction in cross-subsidy, data for five years is crucial. Further, as some categories will have relatively insignificant sales contribution, actual cross subsidy contribution could be much less than the % cross-subsidy calculated. Thus, the category-wise quantum (in Rs. Crore) is also important.
32	Introduction of two part tariff and time	Clause 8.4(1) of NTP	<p>i. Whether two part tariff introduced or not?</p> <p><i>ii. List categories and slabs within categories for which two part tariff is not introduced</i></p>	Each Distribution Licensee in the	Information sought to understand trends and ensure standardised reporting across states. In some cases,

⁴ http://cea.nic.in/reports/others/god/dpd/guidelines_atc_loss.pdf

	differentiated tariff for large consumers (1 MW and above consumer)		<p>ii- iii. Whether time differentiated (ToD) tariff for 1 MW and above consumers introduced or not?</p> <p>iii- iv. Whether ToD tariff introduced for other category of consumers?</p> <p><i>v. Mention category-wise, slab-wise applicability and quantum of ToD tariffs</i></p>	state	slabs, instead of categories may not have two-part tariffs, which should be specifically captured. Similarly, only some sub-categories and slabs within a category could have ToD. Such tariff designs should be captured to aid comparison.
33	Bundling of power plants whose PPAs have expired or have completed their useful life, with power from renewable generating plants.	Clause 5.11(c) of NTP	<p>i) Whether the principles in this regard have been finalized?</p> <p>ii) If yes, has the power from such plants been reallocated to the beneficiaries purchasing power from renewable generating plants?</p> <p><i>iii. Specify details of plant with expired PPA/that have completed useful life including:</i></p> <p><i>Details of the depreciated plant</i></p> <ul style="list-style-type: none"> - <i>Name, location, fuel type</i> - <i>Installed capacity, Contracted capacity</i> - <i>Availability, PLF, Auxiliary Consumption, Net Generation</i> - <i>if plant has expired PPA/completed useful life</i> - <i>Fixed cost (Rs. Crore), Variable cost (Rs./kWh)</i> <p><i>Details of renewable generating plant</i></p> <ul style="list-style-type: none"> - <i>Name, location, technology</i> - <i>Installed capacity, Contracted capacity</i> - <i>CUF, Net Generation</i> - <i>Total cost (Rs. Crore) ,per unit cost (Rs./unit)</i> 	Distribution licensee. In states with multiple DISCOMs, the agency procuring power for all the DISCOMs	Details of such bundling sought to understand the nature and extent of implementation and to aid comparison across states.
34	Compulsory procurement of 100% power from the Waste-to-Energy plants by DISCOMs under Section 62 of the Act.	Clause 6.4(1)(ii) of NTP	<p>i) Whether the DISCOMs in the state are procuring 100% power produced from Waste-to-Energy plants. Yes/No.</p> <p>ii) If yes, quantum <i>procured and it's tariff</i> during the year</p>	DISCOMs. In states with multiple DISCOMs, the agency procuring power for all the DISCOMs	Along with quantum procured it is important to track and compare tariffs as well given the impacts on the DISCOMs.

35	Sharing of information with intending users by the CTU/STU, LDCs	Clause 7.3(2) of NTP	Whether CTU/STU has shared all available information with intending users?	State Transmission Utility	CEA could clarify what is meant by intending users as that clarity is not there in the NTP, 2016. This will ensure correct reporting.
36	Special support through cross subsidy to BPL consumers below specified level (Tariffs for such designated group of consumers will be at least 50% of the average cost of supply)	Clause 8.3(1) of NTP	<p>i) Whether the tariff for BPL consumers who come below a specified level is at least 50% of the average rate of supply?</p> <p>ii) If not, action being taken to implement the same</p> <p><i>iii. If yes, provide details regarding,</i></p> <ul style="list-style-type: none"> - number of BPL consumers in year - sales to BPL consumers in year - fixed charge, variable/ energy charge - % of BPL ABR/ACOS for the year <p><i>iv. What is the threshold or limit for BPL consumption above which BPL tariffs are not applicable? Specify in units/ month or units/ year as applicable.</i></p> <p><i>iv. State if BPL status is assigned to BPL cardholders or is status is given to all consumers using less than BPL consumption limit?</i></p>	Each Distribution Licensee in the state	The mode and mechanism of implementation varies across states. The limits above which BPL tariffs are not applicable are different. The number of BPL consumers and therefore the impact on DISCOM finances varies. Further, even the tariff to BPL consumers varies widely across state. In some states, the threshold limit is specified on an annual basis rather than a monthly to ensure BPL consumers can retain their status. Such variations should also be captured to understand implementation and deliberate future policy action.
37	i) Subsidized rates of electricity up to a pre- identified level of consumption beyond which tariffs reflecting efficient cost of service to be charged from consumers.	Clause 8.3(4) of NTP	<p>i) Has the permitted subsidized rate of electricity been linked to a pre-identified level of consumption?</p> <p>ii) If electricity consumption is more than a pre-identified level, then is tariff reflecting efficient cost of services being charged?</p> <p><i>iii) Provide consumer category wise, slab-wise details on ABR, ACOS, % value of ABR/ ACOS and the per unit subsidy.</i></p> <p>iii) Is the State Government using pre-paid meters to transfer the subsidy to consumers?</p> <p>iv) Are pre-paid meters being used to facilitate</p>	Each Distribution Licensee in the state	Provision of slab-wise ABR and per unit subsidy, when compared with the ACOS provides a clear understanding of the extent of intra-category cross subsidy and helps note compliance to Clause 8.3 (4) of the NTP. The distinction between Question iii) and iv) should be clearly stated to ensure accurate reporting. To understand if pre-paid meters are being used, it is also important to capture the status of pre-paid

	ii) Use of prepaid meters for transfer of subsidy to consumers.		<p>transfer of subsidy to consumers?</p> <p><i>iv) Please state the number of prepaid meters installed along with number of prepaid meters with two way communication and remote tariff setting features and number of pre-paid smart meters.</i></p> <p><i>v) Please state subsidy transferred in Rs Cr via DBT to consumer bank accounts, provided directly to DISCOMs and paid via prepaid meters (in units) and (in Rs. credit)</i></p> <p><i>vi) Are pre-paid meters being used to facilitate automatic compensation to consumers?</i></p>		metering. Thus, details of number of pre-paid meters are asked for. Subsidy can be paid through multiple modes like direct benefit transfer into the consumer's bank account, payment to DISCOMs or through adjustment in the rupee or units balance in the prepaid meter. Details of all modes are asked to record extent of implementation. In addition, it would be good to note if states are using pre-paid meters for automatic compensation.
38	Assignment of existing PPAs with generating companies to the successor DISCOMs (as per National Electricity Policy) to take care of different load profiles of the Discoms to make the retail tariff uniform.	Clause 8.4(2) of NTP	<p>i) Whether the existing PPAs with generating companies are suitably linked to the successor distribution companies?</p> <p><i>ii) In states where there is a single buyer model with multiple DISCOMs, are retail tariffs uniform in the State for different categories of consumers?</i></p> <p><i>iii. In case multiple DISCOMs were created after unbundling, which agency is responsible for power procurement? Does this agency have a trading licence?</i></p>	State Energy Department or its equivalent	Uniform tariffs for a state with multiple DISCOMs but common PPAs is understandable as 70% to 80% of the costs (power procurement costs) are common. However, where private DISCOMs exist alongside state-owned DISCOMs it is impossible to have uniform tariffs without unfairly pooling power procurement costs. It should be clarified that the uniform tariffs are applicable only for DISCOMs with single buyer model. In this context, the details of the agency procuring power should also be stated.
39	Policy notification to encourage setting up of generating plants with maximum of 35% of Installed	Clause 5.2 of NTP (2nd Proviso)	<p>i) Does the State Government have policies to encourage setting up of generating plants with the condition that 35% of installed capacity is procured by Distribution Licensee of the State under Section 62 of the Electricity Act?</p> <p><i>ii) If such a policy exists, then what is the maximum % to be procured by the DISCOM under Section 62 of the E-Act?</i></p>	Distribution licensee. In states with multiple DISCOMs, the agency procuring power for all	As the NTP provision specifies an upper limit of 35%, it would be good to note if State Governments have specified another limit. If the projects are inter-state, it is likely that the tariffs are not being determined by the SERC and thus should be explicitly stated. In addition, details of all PPAs

	capacity to be procured by DISCOM of the state under Section 62 of the Act.		ii) Is the tariff for such 35% of installed capacity being determined by SERC? <i>State if there are any exceptions.</i> iii) <i>Provide the following details of all the power purchase contracts (PPAs) signed under Section 62 of the E-Act: capacity contracted technology/fuel, net generation, fixed cost and variable cost determined by SERC for the year.</i>	the DISCOMs	under Section 62 are sought to provide clarity and ensure standardised provision of information.
40	<i>Timely tariff determination and true-up processes.</i>	<i>Clause 8.1 (7) of NTP</i>	<i>Details of timely revision of tariff for all licensees</i> <i>i. Date of tariff order for applicable year</i> <i>ii. Delay from start of the applicable financial year (in days) and reason for delay</i> <i>iii. Was tariff process suo-motu (yes/no)</i> <i>iv. % increase in average tariff (ABR) from previous year in case of DISCOMs</i> <i>Details of timely regulatory scrutiny (true-ups) for all licensees</i> <i>ii Date of true up order. If delay, specify reasons.</i> <i>iii Years where true up is not done since 2003</i>	State Energy Department or its equivalent in consultation with State Commission	This is a new suggested question Timely determination of tariff has been emphasized in the NTP. Therefore it is vital that delays in issue of tariff orders and whether State Commissions are exercising their suo motu powers to ensure timely determination is tracked. In addition, regulatory scrutiny of actual performance in true-ups is also crucial and has also been stressed upon by APTEL in O.P 1 of 2011 ⁵ . This should also be tracked in a similar fashion.
41	<i>Levy of fuel surcharge</i>	<i>Proviso 1 of 8.2.1 (7) of NTP</i>	<i>Has State Commission specified a framework for determination of fuel surcharge? Is fuel surcharge being recovered from consumers? Mention latest month where fuel surcharge was levied.</i>	Each Distribution Licensee in the state	This is a new suggested question Given the need to ensure timely revenue recovery, it is important to check if fuel surcharges are being recovered from consumers in a timely manner.
42	<i>Timely provision of revenue subsidies</i>	<i>Section 65 of EA</i>	i. Category-wise subsidy committed (Rs. Crore) ii. Category-wise subsidy actually paid (Rs. Crore) iv. Cumulative pending subsidy from the state (Rs. Crore) for each year of the past five years	Each Distribution Licensee in the state	This is a new suggested question The Electricity Act mandated timely provision and payment of subsidies. To note compliance, CEA should track the subsidy committed and paid.

⁵ <http://aptel.gov.in/judgements/OP%20NO.1%20OF%202011.pdf>

43	<i>Setting up of distribution franchisees</i>	<i>Seventh Proviso of Section 14 of EA</i>	<p><i>a. How many franchisees in the state are currently operational?</i></p> <p><i>b. Number of franchisees terminated and reason for such termination</i></p> <p><i>c. Plan for franchisee appointment over the next five years</i></p>	Each Distribution Licensee in the state	<p>This is a new suggestion</p> <p>Given the strong push from the Union Government to increase the number of distribution franchisees, tracking the status and implementation would be crucial</p>
44	<i>Consumer representative by SERC</i>	<i>Section 94 (3) of EA</i>	<p><i>i) Has the SERC appointed consumer representatives? Provide details of consumer representatives currently appointed.</i></p> <p><i>ii) Did the Commission notify regulations to enable appointment? If so, which years were they notified?</i></p>	State Energy Department or its equivalent in consultation with SERC	<p>This is a new suggested question</p> <p>Given the need for information participation in regulatory processes, compliance to Section 94(3) and enabling steps to ensure continued compliance should be noted.</p>
45	<i>R&R provisions for Hydro projects</i>	<i>Clause 5.7 iii (b) of NTP, Appendix of NTP and Clause 5.2.10 of the NEP.</i>	<p><i>i) List of Hydro projects in the state for which these apply</i></p> <p><i>ii) Action taken report on 5.7 iii (b) (100 units free) and points 6, 7 and 8 of the Appendix</i></p>	State Energy Department or its equivalent	<p>This is a new suggested question</p> <p>As per Clause 5.7 iii (b) free power up to 100 units is to be provided every month to project affected families for ten years from the date of commissioning. In addition R&R, training and capacity building and support are to be provided to project affected families. Compliance to the same should be tracked.</p>
46	<i>Capacity building of consumer groups</i>	<i>Clause 5.13.4 of NEP</i>	<p><i>i) Action taken by the Central government which is applicable to the state</i></p> <p><i>ii) Action taken by the State government</i></p> <p><i>iii) Action taken by the SERC</i></p>	State Energy Department or its equivalent in consultation with State Commission	<p>This is a new suggested question</p> <p>Clause 5.13.4 of the NEP states that The Central and State Governments and Commission should facilitate capacity building of consumer groups and their representation before the ERCs. Compliance to the same should be noted.</p>

4 Crucial changes needed in existing formats

In addition to the proposed formats, CEA should also undertake a larger exercise to revise existing data formats⁶ under the Central Electricity Authority (Furnishing of Statistics, Returns and Information) Regulations, 2007. Similar to the current exercise, the amendments to the existing formats should also be done through a public consultation process such that the final formats reflect changes in the sector in recent years. We would like to highlight critical changes required in certain existing data formats for CEA to consider. These are only illustrative to urge the CEA to undertake the process for revision of all data formats and are detailed below:

4.1 Metering status (Formats 51)

CEA's comprehensive form for tracking metering status should be modified to also track progress of automatic meter reading which has been adopted in many states in the recent years. To track this, the percentage of AMI/AMR metering at the feeder, DT and consumer level should be captured.

4.2 Reporting of AT&C losses (Format 56)

The current format for AT&C loss does not capture all the information detailed for the use of calculation of AT&C loss as per the CEA methodology specified in June 2017⁷. Format 56 should be modified accordingly to ensure standardised approach and adoption of CEA methodology.

4.3 Statistics on electricity accidents (Format 19) and Reasons for Electricity Accidents (Format 20)

The existing formats 19 and 20 do not specify the cause of the electrical accidents. Electricity accidents could be due to electrocution or fires due to short circuit and it is better to understand the break-up. It is suggested that Format 19 be split into Format 19 A, which would cover statistics due to electrocution and Format 19 B to cover statistics on fires due to electricity short circuit. Further, Format 19 only captures the electrical location of the accidents and it is important to understand the geographical location, at least a rural-urban break-up as well.

Similarly, Format 20 currently covers reasons due to electrocution. A new item, namely Fire due to short circuits should also be added to make the document more comprehensive. Such changes would help identify systemic issues and address them more effectively.

4.4 Information related to Village Electrification and pump-set energisation (Formats 46 to 50)

In the past two decades, significant efforts have been made to ensure that all villages are electrified. However, the task of electrifying all hamlets and habitations especially with less than 100 households may not have been completed in all states. It is suggested that all formats related to village electrification (Formats 46 to 50) be modified to ensure tracking of the electrification status of habitats. Formats 46 to 49 capture information related to pump-set energisation. As pump sets also get disconnected, to capture realistic growth in pump sets it is important that the formats also capture number of pump sets disconnected each year.

⁶ http://cea.nic.in/regulations_sri.html

⁷ http://cea.nic.in/reports/others/god/dpd/guidelines_atc_loss.pdf

5 Need for data to be available in a consolidated and timely manner

The Central Electricity Authority has been the primary source for consolidated information on generation, transmission and distribution of electricity in India for decades. However, with the rapid changes in the sector, it is imperative that the information collated by CEA is provided in a timely manner to enable analysis based discourse and policy making. CEA has also been making several efforts in this direction including timely release of monthly reports and e-registration portal for all generators. In addition to these efforts, it is also suggested that CEA should:

- **Release information and data in processable formats** (such as .csv or other spreadsheet formats) from all the CEA data formats on CEA's website. For paid publications, such information can be provided on the CEA website behind a paywall. As data collated by CEA is significant, provision in such formats will enable more researchers, policymakers and consumers to utilise this information effectively.
- **Enable online filing of data** for all stakeholders similar to the e-registration portal for generators. This can be done by developing a portal for filing of information. Each user can be given a unique ID to register and file information. CEA can also use the portal to track timely filing of information and take appropriate action in case of non-compliance. Additional queries regarding the data filed or inconsistencies can also be flagged on the portal by CEA for the stakeholder to address in a time-bound manner.
- **Present information in accessible formats to enable wide dissemination of key trends.** Key insights or trends from data can be shared in easily accessible formats (such as interactive graphs, infographics etc.) either on CEA's website or on the National Power Portal. Such steps would go a long way in ensuring data collated is used to further public discourse in the energy sector.

It is hoped that with such measures, CEA will continue to consolidate and provide relevant information on the state and central electricity sectors.

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