Comments on Proposed Deletion and Modification of specific CEA Formats

Prayas (Energy Group) *11th December 2021*

CEA vide Public Notice dated 2nd November 2021 invited comments on proposed deletion and modification of certain formats specified under Central Electricity Authority (Furnishing of Statistics, Returns & Information) Regulations, 2007.

1 Proposed Modification of Formats

Some specific comments on the formats proposed for modification are detailed below:

1.1 Format 21 (Annual Data of Captive Power Plants)

- Streamlining of the format to capture captive data specifically instead of industry specific parameters is a much needed step. Additionally, capturing data for 0.5 MW and above instead of 1 MW and above will provide a more comprehensive picture of captive penetration.
- It must be clarified that the format is to be filled by the captive consumer.
- The format must track all consumers drawing power from generators registered as captive. As captive status can change year on year, the format must also have a question as to whether the consumer has retained captive status for the reporting period. This will ensure better tracking over time.
- The data of commissioning and registration of the captive generating capacity should be captured to aid cross-verification.
- In Point number 1, the Name of the Entity should only capture the Name of the consumer. There should be separate question to record consumer category of the captive user (industrial, commercial etc) and another question to record the captive arrangement (sole ownership, group captive etc.)
- Type of Industry in Point 3. should be based on NIC classification.
- Point 4 on contracted demand with DISCOM is a good addition. Should also capture sanctioned demand as well as maximum demand of the consumer.
- The format should capture if the consumer is using any electricity storage options, especially battery based storage. The format should capture nameplate power capacity, energy capacity, duration installation.
- The format should capture if the captive plant is onsite/co-located with the consumer or if it is off-site.
- Point 5 asks for Baseload/ Standby. It is not clear if this refers to standby arrangements with the DISCOM or baseload supplied by the captive to the consumer. This should be clarified. Ideally the capacity contracted by the consumer from the captive generating plant should be recorded in the format.
- Point 5 could also capture name and location of CGP along with type of CGP to ensure mapping of consumers for group captive.
- In Point 6 and 7, the format should also include type of source (DISCOM, Power Exchange, Trading licensee, Generator etc).

1.2 Format 49 (Irrigation Pump set Energisation)

- As the data is being captured on a circle/ division-wise basis, column 2 should ask for data for each circle/division, not district.
- Separate reporting of grid and off-grid pump sets is welcome. In addition, the format can track number of pump sets which are solarised and grid connected and those receiving power from solarised agricultural feeders. This will enable period tracking of solarisation efforts across states under the KUSUM scheme as well as various state government initiatives.

1.3 Format 51 (Metering Status of Feeders)

Proposed modifications to the metering status format will make it more comprehensive and relevant based on sector developments. Circle/ Division-wise data with separate reporting for urban and rural areas on a monthly basis will provide significant insights. Some specific suggestions are:

- Format 51 (1/3)

— Add sub-station number and name in two separate columns
— For feeder metering type, report if the feeder is AMI enabled as well, not just AMR or normal
— Instead of remarks, there should be separate recording of the status of the meter (functional/ non-functional) as well as the date of last actual meter reading/ communication.
— Noting topology of feeder system that the feeder is part of would also be useful (radial, ringmain etc.)

- Format 51 (3/3)

— Where possible data should be reported division-wise for consumer level metering
— Data should be provided consumer category-wise, not just aggregated at the division level
— Instead of recording remarks, there should be reporting in separate columns on:
    - number of meters where billing was based on average consumption rather than metered readings
    - number of faulty meters

1.4 Format 53 (Reliability Indices)

The reliability indices in this format are to filled based on feeder level outages. It must be noted that many of the interruptions occur due to line faults, DT failures or consumer location faults, and not only due to feeder interruptions.

It is suggested that where smart meters with AMI capability is installed (as noted in Format 51) the data should be based on consumer level or DT level recordings of interruptions and not feeder. Since consumer AMI metering would take some time, calculating the approximate consumer level indicators using DT AMI and consumer indexing data should be explored. Thus, in a manner similar to Format 51, the reliability indices should be reported in two separate tables, one based on feeder level outage recording and the other based on recordings from consumer/DT level smart meters in the circle. The formats should clearly differentiate between indices based on DT meters and consumer smart meters.

Since the data is being compiled across states, it is suggested that the reliability indices be calculated based on a standard format prescribed by CEA rather than using SERC specifications to have a degree of comparability across states.

2 Proposed Deletion of Formats

Some of the formats proposed for deletion capture data useful for policy makers, consumers, researchers, investors, utilities, regulators and other sector stakeholders. Therefore, it would have been beneficial to have a statement of reasons explaining the rationale for deletion of formats. In some instances, there is duplication and thus, deletion can be justified to rationalise and streamline the data collection process by CEA. A good example for this is the proposed deletion of Format 30, considering Format 31 and 38 capture similar information. However, in many others cases, the rationale for deletion is not clear. **However, it is suggested that other formats such as Format 47, Format 52, Format 57, Format 62, Format 63 and Format 55 are not deleted.** The formats proposed for deletion could be modified to make them more relevant and easier to fill for the concerned agencies. A critical re-look at proposed deletion of all the formats is needed considering the formats have:

2.1 Crucial data not captured by other agencies

Formats proposed for deletion have critical information not captured regularly by other agencies. This includes data on:

- Distribution transformer failure rate which is reported in an ad-hoc manner in some regulatory processes (Format 52).
- Power transformer failure rate which is seldom captured even in regulatory filings (Format 52)
- Monthly moisture content of coal received which is currently reported in petitions in an ad-hoc manner only by some state generating companies (Format 57)

2.2 Data not consolidated by other agencies

The formats capture data available across states and utilities but which is seldom compiled on a periodic basis and reported in a consolidated manner by a single agency. This is especially the case for data in regulatory formats which is available for all cost-plus generators and is challenging to consolidate given difference in regulatory treatment across states. This includes data on:

- Station-wise detailing of fixed and variable costs components (including fuel cost adjustment. duties) (Format 62)
- Station-wise details of water consumption by thermal plants (Format 62)
- Financial details of thermal generating stations (Format 62)
- Details of performance of transmission companies including consolidated physical coverage (line length, sub-station details). Status with respect to performance parameters (such as service failure rate, technical loss) and financial details (revenue and cost break up etc). (Format 63)

2.3 Data coverage in formats more comprehensive that other agencies

Some of the data in formats proposed for deletion are captured by other agencies in the sector. However, many parameters in the CEA formats are missed by other agencies. For example, while regulatory commissions capture details of cost-plus projects, there is limited information on performance of competitively bid and merchant capacity. Similarly, PFC[1] reports performance of state-owned utilities but does not report on private utilities (unlike Format 55). While BEE's data collection for

[1] https://www.pfcindia.com/Home/VS/29

the PAT scheme[2] is quite comprehensive on operational parameters there are no details of costs and financial status of thermal plants (Unlike CEA Format 62).

3 CEA's crucial role in data collection for the power sector

We would like to reiterate the CEA plays a critical role in ensuring data collection from multiple agencies in the power sector. This is because of:

3.1 CEA's Mandate and statutory penal powers

CEA has the mandate under Section 74 to requisition data from anyone engaged in generation, transmission, distribution, trading and use of electricity[3]. This means that CEA can require data from state-owned as well as private entities, from regulated as well as non-regulated entities- grid connected or other-wise. This expansive mandate is critical in a changing sector with entry of new players, new business models and centre-state jurisdictional issues. In addition, CEA, under Section 142 and 146 can also penalise DISCOMs for non-compliance. In a fast changing sector with multiple players, new technologies and several business models, CEA's mandate enables recording of crucial data in a comprehensive manner to aid tracking of sector developments and enabling nimble policy responses to emerging trends.

3.2 Requirement of public consultation in case of modification of CEA formats

As per Regulation 9 (2) of CEA's furnishing of Statistics, Returns & Information Regulations, 2007, any modification of data formats requires public consultation. The regulation is quoted below:

The Authority shall, before making change(s) in the format(s), time schedule(s), frequency (ies), data furnishing manner or addition or deletion of format(s) prescribed by the Authority under regulation 5 shall place a draft of changes in format(s) in the website of the Central Electricity Authority for the information of persons likely to be affected thereby. A notice in this regard inviting objections or suggestions shall be published in the widely circulated daily newspapers specifying the date of expiry of the notice period which shall not be less than thirty days, on or after which the proposed changes will be taken into consideration by the Authority. The Authority shall consider the objections or suggestions received on or before the date so specified, from any person in respect of the proposed addition or deletion or changes in the format (s). After revision (s) / change (s) and completion of above procedure, the format (s) shall be notified by the Authority.

Other agencies which collect such crucial data such as REC (for rural electrification), PFC (for state DISCOM finances), CMPDI (for Coal Dispatch data) may not have to undertake such public consultation. Thus, it is possible that reporting formats are modified without consultative processes.

3.3 CEA formats track sector developments rather than scheme outcomes

Many of the variables in CEA data formats capture sector developments in a more comprehensive manner, rather than being linked only to specific central sector scheme outcomes. Regular, periodic reporting also helps capture historical trends. For example, CEA formats go beyond data captured in the SAUBHAGYA[4] dashboard (often presented as one-time snapshots) and the DDUGJY village-level reports[5]

[2] https://beeindia.gov.in/sites/default/files/Updated%20TPP%20Proforma%2010092020.xlsx

[3] *It shall be the duty of every licensee, generating company or person generating electricity for its or his own use to furnish to the Authority such statistics, returns or other information relating to generation, transmission, distribution, trading and use of electricity as it may require and at such times and in such form and manner as may be specified by the Authority.*

[4] https://saubhagya.gov.in/

[5] http://www.ddugjy.gov.in/comxivillagewisedetails/

(which are seldom filled). In addition, CEA data is also used in the NPP[6] dashboard which has the potential to provide a comprehensive snapshot of critical sector developments. Such an exercise would be challenging for other agencies to undertake.

4 Suggestions for streamlining data collection and publishing processes

4.1 Streamlining existing formats and addition of new formats

There is significant scope for modifying CEA data formats to reduce duplication of information collected and to ensure data formats capture important changes in the sector especially related to market-related procurement, renewable energy integration, flexible operation of thermal generators, changes in demand etc. This could include data related to open access, storage installations, rooftop solar status, renewable energy generation data, ramp rates of thermal generators, access to solar power for agricultural consumers, data on payment of dues by various consumer categories, state governments etc. CEA should:

- Undertake a public consultation process to streamline existing formats and add new ones. Such a process should take place every five years to reflect changes in the sector.
- In case many data formats are unfilled, a comprehensive consultation can be undertaken with the utilities and agencies required to supply the data to address issues on ground. Based on the feedback, the formats could be modified after due public consultation.
- In some cases, when necessary, CEA should exercise penal powers to obtain data.

4.2 Public availability of disaggregated data

Much of the disaggregated data collected by CEA should be publicly available. This practice is already in place for some formats. For example, the recent reporting of detailed data on captive generating plants is very welcome[7]. Releasing many of the recent CEA publications online has also been beneficial to the larger community of stakeholders in the sector. A similar process could be followed for data collected in say, Format 52 for DT failure rates. Further, the data submitted can be updated in a downloadable spreadsheet format to aid accessibility. Consumer level details, if any can be anonymised and coded while providing such access.

4.3 CEA to exercise mandate to be the sector's data collection agency

Different central sector departments and agencies collect disaggregated data from licensees, generators and consumers as part of various schemes and in compliance with regulations, orders etc. The task of collecting, verifying this data should rest with one agency to ensure standardisation, harmonisation and streamlining and to reduce the hassle of submitting similar data in multiple formats. Given the mandate of CEA and work in various aspects of the sector this task should rest with CEA. Various regulations, orders can specify CEA as the nodal agency to enable this. Employees from concerned departments can also be assigned to aid CEA in the collection process. Stronger penal provisions for non-compliance, initiatives to leverage on technology to automate collection and dissemination processes (such as the use of APIs) and efforts to increase CEA capacity could go a long way in utilisation of CEA's existing mandate.

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[6] https://npp.gov.in/

[7] https://cea.nic.in/reports/others/planning/pslf/list_CPP_2018-19.pdf