



भारत सरकार  
Government of India  
विद्युत मंत्रालय  
Ministry of Power  
केन्द्रीय विद्युत प्राधिकरण  
Central Electricity Authority  
वितरण आयोजन एवं विकास प्रभाग

Distribution Planning & Development Division

No. CEA/DPD/AT&C losses/2017/1169-1291

Dated 02.08.2017

To

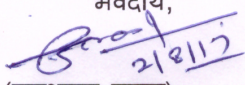
1. Principal Secretary (Energy) of all states
2. CMDs/MDs of all DISCOMs
3. Secretary, Forum of Regulators

**Subject: Methodology for calculation of ACS-ARR gap.**

Sir/Madam,

It had been observed that there are variations in the methodology for calculation of AT&C losses and ACS-ARR gap being adopted by various organizations. Ministry of Power (MoP) had constituted a committee for reviewing the AT& C loss calculation methodology to be followed uniformly by the stakeholders in the country and based on the recommendation of the committee, CEA vide letter No. CEA/DPD/AT&C losses/2017/758-818 dated 2<sup>nd</sup> June, 2017 circulated the guidelines for computation of AT&C losses in the country.

The said Committee, while recommending the revised AT&C loss methodology, had also reviewed the ACS-ARR Gap calculation methodology. In this context, a meeting was held on 16<sup>th</sup> May, 2017 in MoP under the Chairmanship of Secretary (Power), wherein the methodology for calculation of ACS-ARR gap was finalized. It was also decided that CEA would circulate the finalized methodology to all stakeholders. Accordingly, the background note and the finalized methodology for calculation of ACS-ARR gap are enclosed for compliance.

भवदीय,  
  
21/8/17  
(घनश्याम प्रसाद)  
मुख्य अभियंता

Copy to:

1. Joint Secretary (Distribution), Ministry of Power, Shram Shakti Bhawan, Rafi marg, New Delhi-110001
2. CMD, Power Finance Corporation Ltd., 'Urjanidhi', 1, Barakhamba Lane, Connaught Place, New Delhi-110 001
3. CMD, Rural Electrification Corporation, Corporate Office, Core- 4, SCOPE Complex, 7, Lodhi Road, New Delhi - 110003

## Methodology for Calculation of ACS-ARR Gap

### Background

1. The matter of inconsistency in calculation of AT&C loss and ACS-ARR Gap, among Power Distribution Utilities came up in UDAY workshop and in the fifth UDAY Monitoring Committee Meeting. States follow different practices. Some states are calculating ACS-ARR GAP based on **Input Energy** and other states are using **Sold Energy** as basis. However, States/DISCOMs were of opinion that to maintain uniformity, there should be a single method for calculation of these parameters.
2. Ministry of Power (MoP) had constituted a committee for reviewing the AT& C loss calculation methodology to be followed uniformly by the stakeholders in the country. The said Committee, while recommending the revised AT&C loss methodology, had also reviewed the ACS-ARR Gap calculation methodology followed by PFC/REC for preparing various reports.
3. Based on the deliberations held during the meetings of the Committee and meetings held in Ministry of Power, CEA vide letter No. CEA/DPD/AT&C losses/2017/758-818 dated 2<sup>nd</sup> June, 2017 has issued guidelines for computation of AT&C losses.
4. However, as regards the issue of ACS-ARR gap calculation methodology, the Committee recommended that ACS-ARR Gap may be calculated based on the Input Energy basis since data of Input Energy is more reliable in comparison to Energy Sold.
5. Ministry of Power had also referred the issue of ACS-ARR gap calculation methodology to the Forum of Regulators (FoR) for their comments and suggestions. FoR suggested that Gap may be calculated on Billed Energy instead of Input Energy figures since the Input Energy method will not account for the distribution losses of the utility. Calculation of ACS-ARR Gap on input energy shall give a lower Average Billing Rate (ABR) for the utility which may lead to lower tariff fixation and insufficient revenue realization.
6. This was further discussed in the meeting held on 16<sup>th</sup> May, 2017 in MoP under the Chairmanship of Secretary (Power) and following methodology was decided.

## Methodology

1. In the above mentioned meeting held in MoP, it was agreed that while the concern over reliability factor of billed energy cannot be ruled out, at the same time the importance of arriving at a proper ABR for the utility in Tariff calculation is equally important. Hence, it was decided that FoR shall continue to calculate ACS-ARR Gap on Billed Energy basis for determination of distribution tariff, whereas all other stakeholders shall follow the Input Energy based methodology for calculation of ACS-ARR Gap.

## **2. Input Energy based methodology for calculation of ACS-ARR**

Revenue GAP (Rs/kwh)	Avg. Cost of supply - Average Realisable Revenue (Subsidy received basis) (ACS – ARR)
Particulars	Formula
ACS --> Avg. Cost of Supply (in Rs/ kwh)	Total Expenditure (Amount)/ Total Input Energy* (units)
ARR --> Average Realisable Revenue (Subsidy received basis) (in Rs/ kwh)	(Revenue from Sale of Power (on Subsidy Received basis)** + Other income) / Total Input Energy (units)
<p>Note:</p> <p>*Total Input Energy here means Input Energy before making any adjustments like Transmission Loss, Inter-state Sale or Energy Traded etc.</p> <p>**Revenue from sale of power excluding subsidy booked plus subsidy received.</p>	