TP- 09 of 2025.

IN THE MATTER OF:

Review petition filed by Hydro Power Development Corporation of Arunachal Pradesh limited (HPDCAPL) against the Order Dated 16.12.2024 in TP-08 of 2024 along with an application seeking condonation of delay of 165 days.

CORAM: **Mr. R.K. Joshi, Hon'ble Chairperson,**

Mr. Nich Rika, Hon'ble Member (Law).

REVIEW PETITIONER:

Hydro Power Development Corporation of Arunachal Pradesh limited (HPDCAPL).

RESPONDENTS:

1. The Department of Power, Arunachal Pradesh (DOP, AP) being represented by the Chief Engineer (P) Commercial cum CEI,
2. The Chief Engineer (P) Western Electrical Zone,
3. The Executive Engineer (E), Tawang Electrical Division.

APPEARANCE:

1. Advocate Ravi Deshmukh, counsel for the Petitioner.
2. Er. Teli Pinji DGM (Tech) HPDCAPL.
3. Er. Takar Batak DM (E/M) HPDCAPL.
4. Ms. Nabam Yanam, Asst. Law Officer.
5. Ms. Lily Pakmen, Advocate.
6. Er. Raju Dulom, J.E, HPDCAPL.
7. Advocate Kartikey Nayyar, Counsel for Respondent through virtual mode.

Secretary (In-Charge)
APSERC

8. Er. Kenli Tasar S.E (E) Plg, WEZ, DOP, AP.

9. Er. Sange Phuntso E.E (E), Tawang, DOP, AP.

10. Er. Rajesh Sharma J.E, Commercial. DOP, AP.

Date of Hearing: 19. 12. 2025.

Date of Order: 04.05.2026.

ORDER

1. The Review Petitioner, Hydro Power Development Corporation of Arunachal Pradesh limited (hereinafter referred to as "HPDCAPL"/ "Review Petitioner") has filed this review petition seeking a review of the Commission's order dated 16.12.2024 passed in Petition No. TP-08 of 2024.

2. This review petition No. TP-09 of 2025 is filed by the Review Petitioner with the following prayers:

> *"1. Reconsider and revise the applied Capacity Utilization factor (CUF) for the Sumbachu Small Hydro Plant (3 MW), and adopt a realistic CUF of 27.50%, in accordance with actual operational data and site -specific constraints.*
>
> *2. Grant the tariff of Rs. 3.89/- for the project based on the revised CUF of 27.50%, so as to ensure the financial viability of the project and align the tariff with prevailing ground realities.*
>
> *3. to permit the petitioner to make further submission, additions and alterations to this petition as may be necessary from time to time;*
>
> *4. Pass such other or further orders as this Hon'ble Commission may deem just and proper in the interest of justice and equity.*

3. Along with this petition, there is also an application seeking condonation of delay of 165 days in filing the Review Petition. The review petitioner prayed as follows:

> *"(i) allow the present application and condone the delay of 165 days in filing the present affidavit;*

(ii) pass such further or other orders as this Hon'ble Court may deem fit in the interest of justice."

COMMISSION PROCEEDINGS:

HEARING ON DATED 24.9.2025:

4. In compliance to the notice issued by the Commission on dated 06.08.2025, the respondent had filed their reply on 19.09.2025. The review petitioner had submitted that since the reply was received only on 22.09.2025, three [3] weeks time may be granted to go through the contents of the reply. Time was allowed as prayed, further the petitioner was at liberty to filed rejoinder if any within the stipulated time.

HEARING ON DATED 14.11.2025:

5. The learned counsel for the review petitioner Ravi Deshmukh submitted that the Order dated 16.12.2024 in TP-08 of 2024 suffers from error apparent on the face of record and as such by this present petition seeks review. Along with the petition for review an application is also filed seeking condonation of delay of 165 days in filing the review application.

6. On the other hand, learned counsel for respondent Kartikey Nayyar appearing through virtual mode submitted that since this present review petition has been filed after the period of 60 days from the date of Order of the Commission, the same may not be admitted as it would be contrary to the provisions of Regulation 37 of the "Arunachal Pradesh State Electricity Regulatory Commission (Conduct of Business) Regulations, 2011" (hereinafter referred to as "CBR, 2011"). The counsel argues that there are no specific provisions in the Regulation to condone the delay as prayed by the petitioner in the instant case.

7. In interest of justice, the Commission called for written submission from the respondent authorities to be filed within two weeks and

rejoinder by petitioner, if any shall also to be filed within two weeks from the receipt of written submission.

HEARING ON DATED 19.12.2025:

8. The matter was heard in regard to an application filed seeking condonation of delay of 165 days in filing the review petition. The review petitioner has in its written as well as oral submission pleaded and explained the delay in filing the review petition with the following reasons:

a) That after the Review Petitioner came to know about the Order dated 16.12.2024 passed by the Commission in Petition No. TP-08 of 2024 detailed in-house discussions were held and opinions were sought from the board members whether to file an appeal or go for review of the Order.

b) As due to aftereffect of the Order dated 16.12.2024, The respondent authorities completely halt the raised bills which severely has affected the maintenance of the generation plant and ultimately may force to shut down.

c) The collection of data, and submission of verification report took considerable long time due the operational problems of the generation plant exist in the far-flung areas as Zimethang being adjacent to international boundaries with China and Bhutan. The communication aspects whether in terms of road connectivity or internet facilities are also not reliable throughout the year.

d) Subsequently, the data, and verification report was submitted to the board members for approval, Thereafter, the present

counsel was appointed to file a review and requisite documents were shared with him.

e) The counsel for the review petitioner also took time to perused the Order, data and other relevant documents. There was also a considerable delay as in analysing the extent of aftereffect of the Commission's Order. Finally, after obtaining necessary internal approvals on the final draft the review petition was filed on 16.07.2025.

9. The review petitioner further submitted that there is no element of wilful or deliberate negligence in action or any malafide conduct and sufficient cause has been made out to condone of the delay in filing the present review petition.

10. On the other hand, counsel for respondent in its written submission argues that the application for condonation of delay is entirely illegal and beyond the scope of law. The Regulation 37 of the CBR, 2011 does not confer upon this Hon'ble Commission the power to condone any delay, once the prescribed period has lapsed. The Hon'ble Supreme court on several occasions have held that entertaining such applications would run contrary to the very object and scheme of the Act. In absence of statutory authority to condone delay, the belated filing of the present review petition cannot be entertained and accordingly, the review petition deserves to be dismissed at the very outset.

11. The counsel for the respondent has also refer Regulation 38(2) of the CBR,2011, which expressly confers discretionary power upon the Hon'ble Commission to condone delay beyond the period of limitation where sufficient cause is shown in matters of continuance of proceeding after death. Notably, however, no analogous discretion has been

provided in respect of petition seeking review of decisions, directions or orders in Regulation 37, thus any other interpretation would defeat the very purpose of these regulations.

12. The respondent's counsel argues that in the condonation of delay application filed by the petitioner, the delay arose from the time required to consolidate data and information, which is legally untenable on two distinct grounds. first, the petitioner had already presented a comprehensive set of data points and related information in the original tariff petition (TP-08 of 2024), thus the assertion that the delay resulted from efforts to consolidate all relevant data is unsubstantiated, and no sufficient cause exists to justify the delay in filing the review petition. Second, it is well established that a review petition does not permit the introduction of new facts, evidence, or reappreciation of existing facts as its scope is confined to error apparent on the face of the record. The Hon'ble Supreme Court has propounded that a party is not entitled to seek review of judgement merely for the purpose of rehearing and fresh decision of the case. The normal principle is that a judgement pronounced by the Court is final, and departure from that principle is justified only when circumstances of a substantial and compelling character make it necessary to do so which, however are absent in the present review petition filed by the petitioner. Therefore, the present review petition is liable to be dismissed on both counts, that is, absence of sufficient cause for delay and impermissible expansion of scope beyond review parameters.

13. The counsel for respondent in its support had relied on the case citation of Hon'ble Supreme Court, which are as:-

i. New India Assurance C. Ltd. Vs. Hilli Multipurpose Cold Storage Pvt. Ltd. (2020) 5 SCC 757.

ii. Rohitash Kumar Vs. Om Prakash Sharma (2013) 11 SCC 451.

iii. Basawaraj and Anr. Vs. Special Land Acquisition Office [AIR 2015 SC 746].

COMMISSION'S ANALYSIS:

14. Upon hearing the submissions and going through the review petition, reply, rejoinder, written submission and also from the available documents placed before the Commission by respective learned counsel from both sides. In the first instance we need to examine whether there is express or implied authority, jurisdiction or any discretionary power conferred on the Commission to condone any delay in filing review petitions by extending or relaxing the prescribed time limits for filing such petitions.

15. It is important to understand the scope and applicability of review of an order. Section 94 of the Electricity Act, 2003 vests the power with the Commission to review its decision, directions and orders and is reproduced below: -

> *"(1) The Appropriate Commission shall, for the purposes of any inquiry or proceedings under the Act, have the same powers as are vested in a civil court under the Code of Civil Procedure 1908 (5 of 1908) in respect of the following matters, namely: -*
>
> *a. summoning and enforcing the attendance of any person and examining him on oath;*
>
> *b. discovery and production of any document or other material object producible as evidence;*
>
> *c. receiving evidence on affidavits;*
>
> *d. requisitioning of any public record;*
>
> *e. issuing commission for the examination of witnesses;*

f. reviewing its decisions, directions and orders; g. any other matter which may be prescribed.

(2) The Appropriate Commission shall have the powers to pass such interim order in any proceeding, hearing or matter before the Appropriate Commission, as that Commission may consider appropriate.

(3) The Appropriate Commission may authorize any person, as it deems fit, to represent the interest of the consumers in the proceedings before it."

16. Under clause (f) of sub-section (1) of Section 94 of the Electricity Act, 2003 (hereinafter "the Act"), the Commission has been given the same powers of review as are vested in a civil court under the Code of Civil Procedure, 1908. The Act does not lay down any period of limitation for making such application.

17. In the Regulation 37 of the "Arunachal Pradesh State Electricity Regulatory Commission (Conduct of Business) Regulations, 2011", as applicable at the relevant time, had provided limitation period of 60 days from the date of the order for making an application for review. The Regulation 37 of CBR,2011, which reads as: -

*"**Review of the decisions, directions and orders**: -*

(1) Any person aggrieved by a decision or order of the Commission, from which no appeal is preferred or allowed, and who, from the discovery of new and important matter or evidence which, after the exercise of due diligence was not within his knowledge or could not be produced by him at the time when the decision/ order was passed by the Commission or on account of some mistake or error apparent from the face of record, or for any other sufficient reason, may apply for review of such order within 60 days of the date of decision/ order of the Commission.

(2) An application for review shall be filed in the same manner as a petition under Chapter II of these regulations.

(3) When if appears to the Commission that there is no sufficient ground for review, the Commission shall reject such review application.

(4) The application for review shall be accompanied by such fee as may be specified by Commission."

18. In the Regulation 43 of the CBR,2011 the Commission is vested with inherent power for meeting the ends of justice or to prevent the abuse of the process of the Commission. It also empowers to deal with any matter or exercise any power under the Act for which no Regulations have been framed. Regulation 43 of the CBR, 2011, which reads as:-

" 43. ***Saving of inherent power of the Commission****: -*

(1) Nothing in these regulations shall be deemed to limit or otherwise affect the inherent power of the Commission to make such orders as may be necessary for meeting the ends of justice or to prevent the abuse of the process of the Commission.

(2) Nothing in these regulations shall bar the Commission from adopting a procedure, which is at variance with any of the provisions of these regulations, if the Commission, in view of the special circumstances of a matter or class of matters and for reasons to be recorded in writing deems it necessary or expedient.

(3) Nothing in these regulations shall, expressly or impliedly, bar the Commission to deal with any matter or exercise any power under the Act for which no Regulations have been framed and Commission may deal with such matters and exercise powers and functions in a manner it thinks fit."

19. We may also consider going through Regulation 47 of the CBR, 2011, wherein the Commission have been vested with power to extend or abridge of time allowed. The Regulation 47 of the CBR, 2011 which reads as: -

> *"47. **Extension or abridgment of time allowed**: -*
>
> *Subject to the provisions of the Act, the time allowed by these regulations or by order of the Commission for doing any act may be extended by order of the Commission."*

20. Thus Regulation 47 of CBR, 2011 explicitly permits the Commission to condone of delay in seeking review of an Order.

21. Further, the power to review is also subject to the law of limitation. Section 5 of the Limitation Act 1963, deals with cases where condonation of delay may be accepted by the Courts. It provides: -

> *"5. Extension of prescribed period in certain cases. —Any appeal or any application, other than an application under any of the provisions of Order XXI of the Code of Civil Procedure, 1908 (5 of 1908), may be admitted after the prescribed period if the appellant or the applicant satisfies the court that he had sufficient cause for not preferring the appeal or making the application within such period.*
>
> *Explanation. —The fact that the appellant or the applicant was misled by any order, practice or judgment of the High Court in ascertaining or computing the prescribed period may be sufficient cause within the meaning of this section."*

22. Though limitation for making an application for review was 60 days, this period could be extended by the Commission for "sufficient reason".

23. Thus in the light of the settled provisions of law, we cast no doubt that the Commission given the same powers of review as are vested in a civil court under the Code of Civil Procedure, 1908 and also being empowered with its inherent powers under Regulation 43 and 47 of CBR, 2011 has powers to condone any delay in filing review petitions by extending or relaxing the prescribed time limit for filing such petition.

24. Secondly, we now proceed to consider whether the Review Petitioner has made out a case in terms to 'sufficient cause' for condonation of delay of 165 days in filing the present review petition.

25. The review petitioner has attributed its delay due to ongoing reconciliation of project-specific records, cross verifications with contractors/vendors /internal department and time required to compile and verify audit documents, cash flow details, power purchase agreement (PPA) data and other relevant data. Engagement of counsel to filed the required petition, delay in obtaining relevant internal approvals / board resolutions / clearances which were required before the review petition could be submitted.

26. It is not disputed that HDPCAPL, the petitioner in instant case is a company registered under Company Act and in all practical purpose under the Government of Arunachal Pradesh being 100% equity shareholder.

27. It is matter of common knowledge that the Hon'ble Supreme Court has been emphasising adoption of a liberal approach in the matter of condonation of delay on showing of sufficient cause and has deprecated the pedantic approach followed in certain cases. The Hon'ble Supreme Court has declared that the courts should be rational, and apply the

principle in a common-sense, pragmatic manner. In accordance with the law declared by the Hon'ble Supreme Court, there is no presumption that delay is occasioned deliberately, or on account of culpable negligence, or on account of mala fides for the reason that a litigant does not stand to benefit by resorting to delay and rather he runs a serious risk **[See Collector, Land Acquisition Vs Mst Katiji (1987) 2 SCC 107].** Therefore, unless want of bona fides or inaction or negligence is proved, any delay cannot be refused to be condoned.

28. In the case of **G. Ramegowda v. Spl. Land Acquisition Officer, [(1988) 2 SCC 142],** the Hon'ble Supreme Court made the following observations:

> *"17. Therefore, in assessing what, in a particular case, constitutes "sufficient cause" for purposes of Section 5, it might, perhaps, be somewhat unrealistic to exclude from the considerations that go into the judicial verdict, these factors which are peculiar to and characteristic of the functioning of the government. Governmental decisions are proverbially slow encumbered, as they are, by a considerable degree of procedural red tape in the process of their making. A certain amount of latitude is, therefore, not impermissible. It is rightly said that those who bear responsibility of Government must have "a little play at the joints". Due recognition of these limitations on governmental functioning — of course, within reasonable limits — is necessary if the judicial approach is not to be rendered unrealistic. It would, perhaps, be unfair and unrealistic to put government and private parties on the same footing in all respects in such matters. Implicit in the very nature of governmental functioning is procedural delay incidental to the decision-making process......"*

29. As per the above-quoted judgement, the procedural delays which are peculiar to the Government's functioning should be given due

consideration while considering the sufficient cause for the purpose of condonation of delay. Here in the present case the concerned officials of HPDCAPL decided to file a review, obtain the approval of the competent authority, hardship due to unreliable connectivity causing delay in collection of data and relevant documents, engage a counsel, and entrusted the case to file a review, draft the review petition and thereafter, the usual process of approval was followed, which resulted in a delay in filing the review petition. There appears to be the absence of any mala fide or intentional delay on the part of the Review Petitioner.

30. Accordingly, we accept and allow the application for condonation of the delay of 165 days in filing the review petition.

MAINTAINABILITY OF REVIEW PETITION:

31. Let us now consider the petition for review. The ground for seeking the review of the tariff order dated 16.12.2024 is that the review petitioner contended that there is an calculation error and the tariff for 3 MW Sumbachu Small Hydro Plant was determined only considering the normative Capacity Utilization Factor (CUF) as per Clause 27 of " Arunachal Pradesh State Electricity Regulatory Commission (Terms and Conditions for tariff determination from renewable energy source) Regulations, 2018" (in short "R E Regulations, 2018") and not based on actual ground realities.

32. Let us analysis whether the grounds put forth by review petitioner falls within the ambit of review jurisdiction.

SUBMISSION OF REVIEW PETITIONER:

33. In the Paragraph 3.10 (b) of tariff Order dated 16.12.2024, the Commission as per Clause 27 of the R E Regulations,2018 had

determined the tariff taking into consideration the CUF at 45 %. The extract of Para 3.10 (b) is reproduced below: -

> "***(b) Commission's Analysis***
>
> *As per Clause 27 of the RE Regulations 2018, provides that*
>
> *"CUF for the small Hydro projects shall be 45%*
>
> *Explanation: For the purpose of this Regulation, normative CUF is net of free power to the home state if any, and quantum of free power if committed by the developer over and above the normative CUF shall not be factored into the tariff."*
>
> *As detailed in the Detailed Project Report (DPR) dated January 2009, Clause 4.3 specifies a projected Capacity Utilization Factor (CUF) of 65 %. Additionally, the Techno-Economic Review Report prepared by AHEC, IIT Roorkee, in November 2018, recorded CUF values of 60% and 70%*
>
> *The Commission is of the view that DPR was prepared with detailed analysis of hydrology and it cannot go to such huge change in few years' period. So the deviation from the regulation norms is not justified. Therefore, for the calculation of tariff the CUF shall be taken as per regulation i.e. 45%.*
>
> *However, The Commission here advises the petitioner that if due to some constraints if there is low generation then the petitioner shall claim the benefit under the "Must Run" status as per the Electricity (Promotion of Generation of Electricity from Must-Run Power Plant) Rules, 2021 and its amendment."*

34. The counsel for the review petitioner Ravi Desmukh submitted that CUF values 65% (as per Clause 4.3) in the Details Project Report (DPR) and 60-70 % as per the AHEC, IIT Roorkee report are based on ideal conditions and is not a reflective of actual situation. In reality, the CUF

achieved monthly since the project inception is range between 5% and 50% only. Hence it was prayed that CUF of 27.50 % may be considered.

35. The review petitioner has attributed the factors and its ground realities affecting the plant CUF due to:

Water availability:

36. The availability of water influences power generation. It is highest during the monsoon season, moderate in summer and lowest in winter. The review petitioner submitted that Sumbachu Small Hydel project located on the Sumbachu Nallah is affected primarily due to ice formation which reduced stream flow. Its generation is largely attributed to the seasonal variations in water availability. To add more clarity, a table depicting month wise generation for FY 2024-25 has been shown in the petition for review: -

Months	Monthly Generation kWh	Monthly CUF in %
Mar-24	114300	5.26
Apr-24	126300	5.85
May-24	431400	19.97
Jun-24	784800	36.33
Jul-24	651300	30.15
Aug-24	469200	21.72
Sep-24	567600	26.28
Oct-24	581400	26.92
Nov-24	508500	23.54
Dec-24	243300	11.26
Jan-25	266700	12.35
Feb-25	231300	10.71
Mar-25	372600	17.25
Apr-25	305100	14.13

37. Similarly, the review petitioner has also tabulated the annual CUF from its inception, which is as:

Financial Year	Annual Generation kWh	Annual CUF in %
FY-19-20	454707	7.02
FY-20-21	1026000	3.96
FY-21-22	4718700	18.20
FY-22-23	5235900	20.20
FY-23-24	6252300	24.12
FY-24-25	5234400	20.19

38. The average CUF since commissioning has only been 15.62%, hence the petitioner has proposed a CUF of 27.50 %, which the review petitioner shall make all endeavours to achieve it.

Grid availability

39. The review petitioner stated that the Sumbachu Hydroelectric Project is integrated into local grid Via 33 kV transmission line at Zemithang village. The total length of the 33 kV feeder from Sumbachu to the Dukumpani Grid Sub Station is over 200 km. The lines pass through mountainous terrain which is highly unreliable, especially during the rainy season. There are frequent breakdowns, tripping and to maintain the line are very difficult. During breakdowns in the Zemithang-Lula section, the power is supplied only to Zemithang Sub Station. however, this substation has a capacity of just 2 MW with maximum demand of around 1 MW and an average demand of around 650 kW. This limits generation plant to generate only 600-700 kW even when there is enough water during rainy season.

40. The review petitioner here has shown in table, the downtime and reduced % of CUF during the FY 2024-25.

Months	Down time Hrs	Reduced % of CUF
Mar-24	160	22.22
Apr-24	149	20.69
May-24	45	6.25
Jun-24	146	20.28
Jul-24	114	15.83
Aug-24	113	15.69
Sep-24	92	12.78
Oct-24	75	10.42
Nov-24	99	13.75
Dec-24	72	10.00
Jan-25	88	12.22
Feb-25	113	15.69
Mar-25	149	20.69
Apr-25	50	6.94

41. The review petitioner contended that most of the breakdowns happen mostly during rainy season, which unfortunately is also the peak seasons for power generation. This factor has result in lower CUF of the plant.

Voltage synchronization

42. As the transmission lines from Zemithang Sub Station is around 220 km from Dukampani, the review petitioner submitted that this long distance causes voltage drops at Sumbachu plant with 33 kV interconnection point. The voltage falls from 33 kV to 27 kV and sometime even down to 22 kV. These issues lead to additional downtime for the plant which impact the CUF of the plant.

Demand availability

43. The review petitioner submitted that the respondent due to its transmission constraint has restricted the generation of electricity to its maximum capacity. The average power generation is only 300 – 700 kW even when water is abundant during the rainy seasons, as a result, the CUF of the plant is further reduced.

Plant availability

44. The review petitioner submitted that due to mechanical breakdowns which is more especially during the rainy seasons, the maintenance and repair cost is much higher as compared to other region for the plant being located in the far flung remote Zemithang Village, Tawang sharing international boundaries with China and Bhutan. This factor has also adversely impacts the CUF of the plant.

45. The review petitioner submitted that there are no ideal conditions of grid connectivity and power scheduling, the "Must Run" status may create further complications. Further it is being argue by the review petitioner that as per clause 3 of the "Promotion of Generation of Electricity from Must-Run Power Plant Rules,2021, the Sumbachu Hydro Power Plant does not come under the must run status.

46. The review petitioner submitted that the Commission has the power to relax any of the provisions as per Clause 48 of the "APSERC (Terms and Conditions for Tariff determination from Renewable Energy Source) Regulations 2018".

47. The review petitioner is aggrieved as the tariff for the Sumbachu Small Hydro Plant (3 MW) was determined using normative CUF of 45 % and not based on actual ground realities. The review petitioner

prayed before the Commission to reconsider and approve the tariff based on the realistic CUF.

48. On behalf of the review petitioner authorized representative Er. Takar Batak DM (E/M), HPDCAPL added that there is transmission constraint in the 33 kV line starting from Zemithang Sub Station to Tawang Sub Station. This network line in particular faces frequent breakdowns due to poor infrastructure and non-maintenance. This part of the transmission line has already completed its useful working life of more than 25 year. In events of any breakdown, the repair takes more time than usual due to the remote and harsh terrain. Due to this current situation of transmission constraint, the electricity produced on that point of time from plant is curtailed to much extent.

49. In furtherance of submission, the authorized representative has submitted that order is issued by the Department of Power, Tawang to limits the Sumbachu plant generation even when there is enough water discharge. This restriction on the part of the Department of Power is mostly put on effect in rainy season when the electricity generation is at maximum, this ultimately reduced the plant CUF.

50. Lastly, the authorized representative submitted that as the infrastructure in terms of grid connectivity is not ideal, transmission constraint, restriction to generate, security reasons due to strategic international boundaries shared with China and Bhutan, tele-communication not at all reliable due to remote and harsh terrain, the mandatory compliance scheduling under Must Run status cannot be effectively implemented.

51. Thus, it is prayed that till there is ideal conditions for Must Run Status and transmission constraints is resolved from respondent

authorities, the Commission may consider a CUF of 27.50% as to determine the tariff of Sumbachu Small Hydro Plant.

SUBMISSION OF THE RESPONDENT:

52. The counsel for the respondent Kartikey Nayyar appearing through virtual mode on the other hand object to the present review petition on the grounds that the matter has already been adjudicated by the Commission and no new evidence or documents have been furnished by the petitioner that would warrant consideration under the scope of review petition as provided under Order XLVII Rule 1 of the Code of Civil Procedure 1908.

53. The Respondent argue that the sole ground raised by the review petitioner is with respect to Capacity Utilization Factor (CUF) of 45% instead of 27.50%. The Commission after considering the relevant provision and facts presented before, deemed it appropriate and has determined the CUF in accordance with Clause 18 and Clause 27 of the RE Regulations, 2018. The respondent vehemently opposes the present review petition on the ground of maintainability as well as on merits. The said Order does not suffer from any infirmity and ground of calculation error raised by the petitioner is not within the legal scope of consideration of review under Order XLVII Rule 1 of the Code of Civil Procedure 1908.

54. The Commission when enquired the facts as placed in the oral submissions by the authorised representative of the review petitioner Er. Takar Batak DM (E/M), HPDCAPL, appearing for the respondent side Er. Sange Phuntso E.E (E), Tawang, DOP, AP do admit that presently there is transmission constraint in the lines from Zemithang Sub-Station to Tawang Sub-Station. On record, the official does also

accept that on occasions order is issued by the Department of Power restricting the electricity generation from the Sumbachu plant.

COMMISSION'S ANALYSIS:

55. Let us examine the ground on which the petitioner is seeking review of the Order dated 16.12.2024 being passed by the Commission in TP-08 of 2024.

56. Having gone through the averments in the review petition as well as written and oral submissions from counsel of the review petitioner. It is clear that the petitioner is seeking reconsideration of Capacity Utilization Factor (CUF) calculated at 45% instead of 27.50% as prayed by the review petitioner in the tariff petition No. TP-08 of 2024 The review petitioner believes this is calculation error as the factors and ground realities affecting the plant's CUF were not taken into consideration.

57. The Commission had based the analysis on the strength of the provisions as enumerated in Clause 18 and Clause 27 of the R E Regulations, 2018 while calculating the tariff taking into consideration the CUF of 45%. The Commission do not go hand in hand with the contentions raised by the review petitioner that (CUF) being calculated at 45% instead of 27.50% is a calculation error. The extracts of Clause 18 and Clause 27 of the R E Regulations, 2018 which reads as:

> *"18.* ***Calculation of CUF/PLF:***
>
> *The number of hours for calculation of CUF/PLF (wherever applicable) for various RE technologies shall be 8766."*
>
> *"27.* ***Capacity Utilization Factor:***
>
> *CUF for the small hydro projects shall be 45%*

Explanation: For purpose of this Regulation, normative CUF is net of free power to the home state if any, and quantum of free power if committed by the developer over and above the normative CUF shall not be into the tariff."

58. Going through the petition and from the documents on record, specifically, the Detailed Project Report (DPR) dated January 2009, Clause 4.3 specifies a projected Capacity Utilization Factor (CUF) of 65 %. Additionally, the Techno-Economic Review Report prepared by AHEC, IIT Roorkee, in November 2018, recorded CUF values of 60% and 70%. In its analysis the Commission view that such documents are prepared with detail analysis and drastic change cannot be factor over few years, therefore, the CUF was determined as 45% as per the Regulations, 2018. In the Order itself, it was also made clear that if the petitioner faced hardship due to some constraints in event of low generation, the petitioner can claim the benefit under the "Must Run" status as per the Electricity (Promotion of Generation of Electricity from Must-Run Power Plant) Rules,2021.

59. Before we go any step further in our observations, we may note that Section 114 of CPC is the substantive provision dealing with scope of review and is quoted below:

*"114. **Review.** —Subject as aforesaid, any person considering himself aggrieved—*

(a) by a decree or order from which an appeal is allowed by this Code, but from which no appeal has been preferred.

(b) by a decree or order from which no appeal is allowed by this Code, or

(c) by a decision on a reference from a Court of Small Causes, may apply for a review of judgment to the Court which passed the decree

or made the order, and the Court may make such order thereon as it thinks fit."

60. The grounds on which review of a judgment / order can be sought, have been specified in Order XLVII of the CPC which are reproduced herein below: -

*"1. **Application for review of judgment.** — (1) Any person considering himself aggrieved-*

(a) by a decree or order from which an appeal is allowed, but from which no appeal has been preferred,

(b) by a decree or order from which no appeal is allowed, or

(c) by a decision on a reference from a Court of Small Causes,

and who, from the discovery of new and important matter or evidence which, after the exercise of due diligence was not within his knowledge or could not be produced by him at the time when the decree was passed or order made, or on account of some mistake or error apparent on the face of the record or for any other sufficient reason, desires to obtain a review of the decree passed or order made against him, may apply for a review of judgment to the Court which passed the decree or made the order

(2) A party who is not appealing from a decree or order may apply for a review of judgment notwithstanding the pendency of an appeal by some other party except where the ground of such appeal is common to the applicant and the appellant, or when, being respondent, he can present to the Appellate Court the case on which he applied for the review.

Explanation. —The fact that the decision on a question of law on which the judgment of the Court is based has been reversed or modified by the subsequent decision of a superior Court in any other case, shall not be a ground for the review of such judgment."

61. A bare perusal of these relevant legal provisions would make it clear that an application for review of a judgment / order is maintainable upon (i) discovery of a new and important matter or evidence which, after exercise of due diligence, was not within the knowledge of the review applicant or could not be produced by him when the judgment / order was passed; or (ii) on account of some mistake or error apparent on the face of record; or (iii) for any other sufficient reason.

62. With the pleadings of the parties and documents available, this Commission here acknowledge that factors and ground realities affecting the CUF of the plant was not considered in the Order dated 16.12.2024 of the petition TP 08 of 2024 and the same was determined on the normative parameter relying on the Clause 18 and Clause 27 of the Renewable Energy Regulations, 2018.

63. In the Record of Proceedings, dated 03.09.2024 in the TP 08 of 2024, the Commission herein admit that the petitioner has claimed CUF of 27.5% instead of 45% specified in the 2018 tariff Regulations due to non-availability of water during the winter season and frequent disruption of 33 kV transmission line of the Department of Power, Arunachal Pradesh through which the power from the project is evacuated.

64. During the course of proceeding, the review petitioner has made a compelling appeal to reconsider the CUF under Power to Relax, provisions as enumerated in Clause 48 of "Arunachal Pradesh State Electricity Regulatory Commission (Terms and Conditions for tariff determination from Renewable Energy Source) Regulations 2018" on account the hardship faced as consequent to the Order dated 16.12.2024. The Clause 48 of the RE Regulations,2018 which reads as:

*"48. **Power to Relax:***

The Commission may by general or special order, for reasons to be recorded in writing, and after giving an opportunity of hearing to the parties likely to be affected, may relax any of the provisions of these Regulations on its own motion or on an application made before it by an interested person."

65. We may now refer to the observation made by the Hon'ble Tribunal, **in its judgment dated 25.03.2011 in Appeal No. 130/2009 titled Ratnagiri Gas & Power Pvt. Ltd. v. CERC & Anr** has held as follows in the context of Regulation 76 of the 2019 Tariff Regulations (which is in pari materia Regulation 54 of the 2014 Tariff Regulations):

18.1"The Regulations of the Central Commission and decisions of the Tribunal and the Supreme Court confer the judicial discretion to the Central Commission to exercise power to relax norms in exceptional case. However, while exercising the power to relax there should be sufficient reason to justify the relaxation and non exercise of discretion would cause hardship and injustice to a party or lead to unjust result. It has also to be established by the party that the circumstances are not created due to act of omission or commission attributable to the party claiming the relaxation. Further, the reasons justifying relaxation have to be recorded in writing."

66. Also, in the judgments of Hon'ble APTEL in the matter of **NTPC Ltd. v. Madhya Pradesh State Electricity Board recorded in 2007 ELR APTEL 7** recorded the following observations:

"It must be held, that the power comprised in Regulation 13 is essentially the "power to relax". In case any Regulation causes hardship to a party or works injustice to him or

application thereof leads to unjust result, the Regulation can be relaxed. The exercise of power under Regulation 13 of the Regulation is minimized by the requirement to record the reasons in writing by the Commission before any provision of the Regulations is relaxed. Therefore, there is no doubt that the Commission has the power to relax any provision of the Regulations"

67. The above Regulations and the decision rendered by Hon'ble APTEL gives judicial discretion to the Commission to relax norms based on the circumstances of the case. However, such a case has to be one of those exceptions to the general rule. There has to be sufficient reason to justify relaxation. It has to be exercised only in exceptional case and where non-exercise of the discretion would cause hardship and injustice to a party or would lead to unjust result. Further, it has to be established by the party that the circumstances are not created due to act of omission or commission attributable to the party claiming the relaxation.

68. In light of the above principle, we have examined the circumstances in the present case that justify exercise of power to relax by the Commission.

69. The factors, its highlighted ground realities have been looked upon by the Commission. Considering that infrastructure in terms of grid connectivity not in ideal conditions. The frequent transmission constraint in the 33 kV line from Zemithang Sub Station to Tawang Sub Station with frequent breakdowns due to poor infrastructure and issue of non-maintenance, transmission line already over its useful working period of 25 year and in events of breakdown, the repair takes usually longer time due to the remote and harsh terrain. This ground realities have huge implications in the efficient supply of electricity. Though the

remedy for it has been provisioned in clause 3(2), clause 3(3) and clause 3(4) of the Electricity Rules,2021, but it is exercisable only to those location or area which has well communication infrastructure.

70. Adding to the woes of the review petitioner, the restriction imposed by the Department of Power, Tawang to generate electricity to its optimum capacity, especially in the rainy seasons where water discharge is abundant, in result having its adverse effect in curtailing the CUF of the plant and the review petitioner is not in a position to invoke clause 3(4) of the Electricity Rules ,2021 due to non-availability of connectivity.

71. We have also looked into the technical constraint as intimated by the review petitioner regarding project site. The Sumbachu generation plant is located in Zemithang village, Tawang. The Security concerns are imminent due to strategic international boundaries shared with China and Bhutan. Due to its remoteness and hard terrain tele-communication is not at all reliable. This grounds reality seriously restricts proper scheduling to State Load Dispatch Centre (SLDC), ultimately in consequences, the review petitioner is deprived the benefit under the Must Run Status for curtailment or restriction due to technical constraint as of clause 3(2), clause 3(3) and clause 3(4) of the Electricity Rules,2021

72. The Commission has acknowledged that in the hearing on 19.12.2025 the admitted oral submissions from respondent official Er. Sange Phuntso E.E (E), Tawang, DOP, AP about orders for restricting generation has compelled us to re-analysis our Order, where the Department official has accepted that there is transmission constraint in the line passing Zemithang Sub-Station to Tawang Sub-Station and the lines are in need of maintenance and upgradation as it has completed it

useful life, further the official do admit that occasionally restriction is imposed by the Department of Power , Tawang to generate power to its optimum capacity because of the transmission constraint.

73. We have in detail gone through Clause 3 of the Electricity (Promotion of Generation of Electricity from Must-Run Power Plant) Rules,2021. The extract of Clause 3 of the Must Run Power Plant Rules, 2021 are as:

"3. ***Must-run power plant.*** —

(1) A wind, solar, wind-solar hybrid or hydro power plant (in case of excess water leading to spillage) or a power plant from any other sources, as may be notified by the Appropriate Government, which has entered into an agreement to sell the electricity to any person, shall be treated as a must-run power plant.

(2) A must-run power plant shall not be subjected to curtailment or regulation of generation or supply of electricity on account of merit order dispatch or any other commercial consideration:

Provided that electricity generated from a must-run power plant may be curtailed or regulated in the event of any technical constraint in the electricity grid or for reasons of security of the electricity grid:

Provided further that for curtailment or regulation of power, the provisions of the Indian Electricity Grid Code shall be followed.

(3) In the event of a curtailment of supply from a must-run power plant, compensation shall be payable by the procurer to the must-run power plant at the rates specified in the agreement for purchase or supply of electricity.

(4) Where, in the event of any technical constraint in the electricity grid or for reasons of security of the electricity grid, procurer gives the notice for curtailment to the must-run power plant in advance, prior to the start of the day ahead market or real time market or any

other product introduced from time to time in the power exchange, the must-run power plant shall sell the electricity not scheduled by the procurer in the power exchange.

(5) The amount realised by such must-run power plant from such sale of electricity in a power exchange, after deducting actual expenses paid for the sale in the power exchange, if any, shall be adjusted against the compensation payable by the procurer under sub-rule (3).

(6) Any deficit in realisation of amount, with respect to the compensation shall be paid by the procurer on monthly basis.

(7) Any excess realisation of amount during a month from sale of electricity in a power exchange, if any, shall be carried forward and adjusted in the next month or months.

(8) The final adjustment of excess realisation of amount, if any, shall be paid by the must-run power plant to the procurer within one month of the close of the financial year."

74. From the above relevant proviso clause, it is understood that applicability of the must run power plant can be curtailed or regulated in the event where there is technical constraint in the electricity grid or for reasons of security of the electricity grid. Here in the present case apart from transmission constraint, the review petitioner is also faced with technical constraint from unreliable tele-connectivity as of strategic international boundaries with China and Bhutan.

75. It is in our understanding that to avail Must-Run benefits pre-requisite scheduling data or information has to be shared by the review petitioner with the Respondent authorities. But due to unreliable tele communication, the review petitioner is in no position to share the required scheduling information in the given timeline. The hardship

faced by the review petitioner are not an omission or commission on their part but rather circumstances beyond their control.

76. We may also go through the judgments of Hon'ble APTEL in the matter of **M/s Greenyana Solar Private Limited versus Harayana Electricity regulatory Commission and Ors. [Appeal No. 302 of 2024]** held that:

> *"15. In our considered view, the project-specific tariff determination under Section 62 of the Electricity Act is to arrive at a tariff that is uniquely tailored to the economic and operational realities of a particular project, while being subject to stringent checks for transparency, fairness, and policy consistency; such an approach not only helps secure return on investment but also ensures that tariff levels remain in line with consumer protection goals and broader market efficiency. The project specific tariff reflects actual costs incurred subject to prudence check."*

77. With admitted facts on record, the Commission considered that it has erred in its Order, passed on dated 16.12.2024 in TP-08 of 2024, where the normative CUF value of 45% for the useful life was taken without considering the ground realities and hardship faced by the review petitioner due poor network connectivity resulting into not having a position to get adequate compensation due to transmission constraint and restriction imposed by the Department of Power, Tawang to generate electricity to the optimum capacity under must run status.

DECISION:

78. Thus Commission allows this review petition on being satisfied that hardship caused to the petitioner as of the above observed ground realities can be accounted to exception and where non-exercise of the

discretion to relax the norm based on the circumstances of the case would cause hardship and injustice to a party or would lead to unjust result and it is also well established that the circumstances and hardship are not created due to act of omission or commission on the part of review petition.

79. On the review petition being allowed, the Commission is pleased to accord relief in the Order dated 16.12.2024 passed in TP-08 of 2024. The Order is further extended to Paragraph 3.12. The paragraph 3.12 is continued and to be reads as:

3.12. **Measures taking on account of ground realities and technical constraint:**

Assessing the bottleneck situation of the review petitioner due to the ground realities as of poor network connectivity, transmission constraint and restriction impose by the Department of Power, Tawang to generate electricity to the optimum capacity. The Commission is of the considered view that it as an exceptional case where norms can be relaxed based on its circumstances, if not it would lead to miscarriage of justice.

As such taken into account the present specific condition the Commission allows that in determination of tariff, the CUF to be calculated taking value of 27.50% till such time and period reliable digital communication to submit the scheduling to SLDC is not available since COD.

80. The generation levelized tariff for Sumbachu Small Hydro Plant at **₹ 2.02 (Rs. /kWh)** as considered in Order dated 16.12.2024, Paragraph 3.11 Hydro Power Generation Tariff- Commission's Analysis is

applicable during such time and period since COD when reliable digital communication is available.

81. The revised calculations based on the CUF of 27.50 % is attached as Annexure **A & B** along with the order of review.

82. Hence, relief granted to the review petitioner based on calculation of CUF of 27.50 % the Commission approves the generation tariff for Sumbachu Small Hydro Plant at **₹ 3.31 (Rs. /kWh)** for the time and period of non-availability of reliable digital communication since COD.

83. The generation levelized tariff for Sumbachu Small Hydro Plant at **₹ 3.31 (Rs. /kWh)** will operate from the date of commercial operation of the plant till such time or duration when reliable digital communication in Zemithang is not available restricting review petitioner to submit daily scheduling to SLDC.

84. To avoid the multiple inconvenience to the review petitioner as well the purchaser in accordance to PPA regarding the period and time, when reliable digital network for communication between the review petitioner and SLDC for scheduling was/is not available, a certificate from the District Administration, Zemithang, Tawang shall be the basis for tariff to be applicable for that specific period.

85. With the above observations and direction, Review Petition No. TP-09 of 2025 is disposed of accordingly.

Sd/-
Shri Nich Rika,
Member (Law)

Sd/-
Shri R. K. Joshi
Chairperson

Secretary (In-Charge)
APSERC

Sumbachu Small Hydro Projects (2 x 1.5 MW)					Annexure
Small Hydro: Assumptions Parameters					
S. No.	Assumption Head	Sub-Head	Sub-Head (2)	Unit	HPDCAPL
				COD	23-01-2020
			Installed Power Generation Capacity	MW	3
			Capacity Utilization Factor	%	27.5%
			Auxiliary Consumption	%	1%
			Useful Life	Years	35
2	Project Cost	Capital Cost	Power Plant Cost	Rs Lacs	3094.29
			Capital Subsidy (if any)	Rs Lacs	3094.29
			Net Capital Cost	Rs Lacs	0.00
3	Period		Tariff Period	Years	35
4	Sources of Fund	Debt: Equity			
			Debt	%	70%
			Equity	%	30%
			Total Debt Amount	Rs Lacs	0.00
			Total Equity Amout	Rs Lacs	0.00
		Debt Component			
			Loan Amount	Rs Lacs	0.00
			Moratorium Period	years	0
			Repayment Period (including Moratorium)	years	13
			Intrest Rate	%	9.91%
		Equity Component			
			Equity amount	Rs Lacs	0.00
			Return on Equity for Project Life	% p.a	17.60%
			Discount Rate		9.12%
5	Financial Assumptions				
			Income Tax	%	29.12%
		Depreciation			
			Allowed Depriciation	%	90%
			Depreciation Rate for first 13 years	%	5.28%
			Depreciation Rate 14th year onwards	%	0.97%
6	Working Capital	For Fixed Charges			
		O&M Charges		Months	1
		Maintenance Spare	(% of O&M exepenses)		15%
		Receivables for Debtors		Months	2
		Intrest On Working Capital		%	10.91%
7	Operation & Maintenance				
		O&M Expenses (2019-20)		Rs Lacs	40.24
		Total O & M Expenses Escalation		%	5.72%
8	Generation and Sale Of Energy				
		Total No. of Hours		Hrs	8766

RE Tariff (SHP)																		
Units Generation	Unit	Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Installed Capacity	MW		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Gross Generation	MU		7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23
Auxiliary Consumption	MU		0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Net Generation	MU		7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16
Fixed Cost	Unit	Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
O&M Expenses	Rs Lakh		120.71	127.62	134.92	142.63	150.79	159.42	168.54	178.18	188.37	199.14	210.53	222.57	235.31	248.77	262.99	278.04
Depreciation	Rs Lakh		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Interest on term loan	Rs Lakh		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
Interest on working Capital	Rs Lakh		5.36	5.67	6.00	6.34	6.70	7.08	7.49	7.92	8.37	8.85	9.36	9.89	10.46	11.06	11.69	12.36
Return on Equity	Rs Lakh		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Fixed Cost	Rs Lakh		126.08	133.29	140.91	148.97	157.49	166.50	176.02	186.09	196.74	207.99	219.89	232.47	245.76	259.82	274.68	290.39
Per Unit Cost of Generation	Unit	Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
O&M expn	Rs/kWh		1.69	1.78	1.88	1.99	2.11	2.23	2.35	2.49	2.63	2.78	2.94	3.11	3.29	3.47	3.67	3.88
Depreciation	Rs/kWh		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on term loan	Rs/kWh		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Int. on working capital	Rs/kWh		0.07	0.08	0.08	0.09	0.09	0.10	0.10	0.11	0.12	0.12	0.13	0.14	0.15	0.15	0.16	0.17
RoE	Rs/kWh		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total COG	Rs/kWh		1.76	1.86	1.97	2.08	2.20	2.33	2.46	2.60	2.75	2.91	3.07	3.25	3.43	3.63	3.84	4.06
Discount Factor			1.000	0.840	0.770	0.705	0.646	0.592	0.543	0.498	0.456	0.418	0.383	0.351	0.322	0.295	0.270	0.248
Discounted Tariff			1.761	1.564	1.515	1.468	1.422	1.378	1.335	1.293	1.253	1.214	1.176	1.140	1.104	1.070	1.037	1.004
Levellised Tariff	**Rs/Unit**		**3.31**															

17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23	7.23
0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16	7.16

17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
293.94	310.76	328.53	347.32	367.19	388.19	410.40	433.87	458.69	484.93	512.66	541.99	572.99	605.77	640.42	677.05	715.77	756.72	800.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13.06	13.81	14.60	15.44	16.32	17.25	18.24	19.28	20.38	21.55	22.78	24.09	25.46	26.92	28.46	30.09	31.81	33.63	35.55
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
307.01	324.57	343.13	362.76	383.51	405.44	428.64	453.15	479.07	506.48	535.45	566.08	598.46	632.69	668.88	707.14	747.58	790.35	835.55

17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
4.11	4.34	4.59	4.85	5.13	5.42	5.73	6.06	6.41	6.77	7.16	7.57	8.00	8.46	8.94	9.46	10.00	10.57	11.17
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.18	0.19	0.20	0.22	0.23	0.24	0.25	0.27	0.28	0.30	0.32	0.34	0.36	0.38	0.40	0.42	0.44	0.47	0.50
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4.29	4.53	4.79	5.07	5.36	5.66	5.99	6.33	6.69	7.07	7.48	7.91	8.36	8.84	9.34	9.88	10.44	11.04	11.67

0.227	0.208	0.191	0.175	0.160	0.147	0.134	0.123	0.113	0.103	0.095	0.087	0.080	0.073	0.067	0.061	0.056	0.051	0.047
0.973	0.943	0.913	0.885	0.857	0.831	0.805	0.780	0.756	0.732	0.709	0.687	0.666	0.645	0.625	0.606	0.587	0.568	0.551