

**Before the Appellate Tribunal for Electricity  
(Appellate Jurisdiction)**

**Appeal No. 175 of 2005**

Dated the August 21, 2006.

Present: - Hon'ble Mr. Justice E. Padmanabhan, Judicial Member  
Hon'ble Mr. H.L. Bajaj – Technical Member

1. BBN Industries Association  
Baddi, Himachal Pradesh
2. Parwanoo Industries Association(PIA),  
Parwanoo, Himachal Pradesh
3. Confederation of Indian Industry(CII),  
Chandigarh
4. Hotel Windsmoor (CS Consumer),  
Parwanoo, Himachal Pradesh
5. Horological Components Pvt. Ltd.  
(SMS Consumer), Parwanoo, H.P. .....Appellants

Versus

1. H.P. Electricity Regulatory Commission.  
Shimla
2. Himachal Pradesh State Electricity Board, Shimla .....Respondents

For the Appellants : Mr. P.S. Bhullar, Advocate

For the Respondents : Mr. M.G. Ramachandran,  
Ms Taruna Singh Baghel and  
Ms Saumya Sharma  
Ms. Rinku Gautam, HPERC

## **JUDGMENT**

1. This appeal is directed against order dated June 29, 2005 passed by the Himachal State Electricity Regulatory Commission (“Commission”) while determining the Annual Revenue Requirement and Tariff for the year 2005-06 of the Himachal Pradesh State Electricity Board ( the Board) and order dated September 3, 2005 dismissing the Review Petition filed by the appellants seeking review of its order dated June 29, 2005. The Commission’s said orders are referred to collectively as “**Impugned Orders**” hereinafter.

2. The appellants prayed for the following reliefs:-

- (a) Pass an order modifying the Impugned Order dated 29.06.2005, taking into account the facts and grounds set out herein in this appeal.
- (b) Quash the levy of the Harmonic Injection Penalty of Rs. 500/- per KW of connected load per month.
- (c) Quash the levy of reform surcharge of 5% of Electricity Bill from July 01, 2005 to March 31,2006.
- (d) Quash the formula adopted by the Commission for calculating demand charges, wherein instead of adopting 80% of the Contract Demand, the Commission has adopted 100% of the Contract Demand and also quash the increase in Demand Charges hike in the following categories:
  - (i) Rs. 150/- per KVA in case of Small and Medium Industry, in as much as it has been hiked from Rs. 50 per KVA i.e. a hike of 300%.

- (ii) Rs. 175/ per KVA in case of Demand Charges for Scheduled Commercial Supply in as much as it has been hiked from Rs. 100/- per KVA i.e. an increase 75%.
- (iii) Rs. 240/- per month in case of HT Supply in as much as it has been hiked by 60% over the existing rates and 41% over that demanded by the respondent no. 2.

3. The facts of the case leading to this appeal are given below:-

(a) There are six appellants. Some of the appellants are societies registered under The Societies Registration Act, 1860 to represent its members, who are comprised of small, medium and large industrial units and large size hotels in the state of Himachal Pradesh. Association is represented by its office bearers who, it is represented, have the power to take recourse to the remedy of appeal, being consumers and being impacted by the Impugned Orders:

(b) The Commission in response to an application filed by the second Respondent Board for approval of its Annual Revenue Requirement and determination of Distribution and Retail Supply Tariff, Transmission and Bulk Supply Tariff and Generation Tariffs for its electricity generation stations for FY 2005-06, under Sections 62,64 and 86 of the Electricity Act, 2003, read with the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2004. The Commission invited objections from consumers and also held public hearings.

(c) The appellants filed written objections and also pleaded their case before the Commission during the public hearings at Baddi and

at Shimla during May, 2005. The Commission after hearing the consumers passed the Tariff Order for year 2005-06 on June 29, 2005, to be effective from July 1, 2005. On receipt of a copy of the tariff order dated June 29, 2005, the appellants filed a Review Petition bearing No. 248 of 2005 before the Commission, wherein the appellants prayed that the Commission may review its order dated June 29, 2005.

(d) The Commission, it is contended by the appellants, while passing the Impugned Orders adopted an approach which is untenable in law and inconsistent with regulatory precedents and deserves to be set aside/modified in line with the grounds set out by the appellants and hence this appeal.

4. Following are the major submissions made by the appellants.

(i) That there has been a steep hike in the tariff of the categories especially i.e. Commercial, Small and Medium Industry as well as Large Industry (except EHT under LS tariff). The actual and effective increase in the categories viz. Commercial Supply, Small and Medium Supply and HT Supply is much higher than the increase projected by the Commission. While the projected tariff hike is said to be ranging from 2% to 13.5%, the actual tariff hike in effect ranges from 4.1% to 30% which contravene to the philosophy adopted by the Commission.

(ii) That there is a steep hike in the demand charges against Commercial Supply, Small and Medium Supply and Large Industrial Supply. A perusal of Table 8.8 of the Tariff Order shows that:

- (a) Demand Charges for Schedules Commercial Supply has been hiked from Rs. 100/- per kVA to Rs. 175/- i.e. an increase by 75%.
- (b) Demand Charges in case of Small and Medium Industry it has been hiked from Rs. 50 per kVA to Rs. 150/- kVA i.e. a hike of 300%.
- (iii) That in spite of the heavy increase in demand charges as pointed out in the aforesaid paras of this appeal, the Commission has also changed the formula for the calculation of demand charges, which has further marked the demand charges by about 25%. In this regard it is pertinent to observe that the change in the formula for calculation of demand charges in the earlier tariffs i.e. in the Tariff Orders for FY 2001-02 and that for FY 2004-05 has been as under:

<b>FY 2001-02</b>	<b>FY 2004-05</b>
Demand Charge Rate X <b>80% of contract demand</b> or maximum recorded demand during the billing period (whichever is higher)	Demand Charge Rte X <b>contract demand</b> or maximum recorded demand during the billing period (whichever is higher)

- (iv) That on account of the change in the formula, there has been a further increase in demand charges by about 25%. The earlier formula was much realistic in as much as it acknowledged the genuine need of the industry for variations in demand on account of variation in sales, incoming voltages, or changes in demand that occur due to replacement of motors, equipments etc. The appellant submits that the new formula gives no flexibility as a result of which the members of appellants societies will end up paying more in terms of penalties for over drawal. The arbitrary approach adopted by the Commission has

caused substantial tariff shock and injustice to consumers/members of the appellants associations and deserves to be set aside in as much as the increase is contrary to principles and provisions of the Act and the National Electricity Policy.

- (v) That the Commission has, in para 8.22 of the Tariff Order dated June 29, 2005, given an incentive to the respondent No. 2 for initiating reforms wherein it has observed as under:-

**8.22 Reform Surcharge**

8.22.1 *The Commission has given several ADVISORIES to the HPSEB with the intention of implementing reform and restructuring of the Board along efficient lines. For this purpose, the Commission has given an incentive of Rs. 50 crore to the Board for implementing the reform and restructuring. **This incentive will be funded through a reform surcharge of 5% of the electricity bill of the consumer, excluding the electricity duty, which will continue to be in force till March 31, 2006, or till such time as the Commission specifies, depending on the achievement of specified milestones by the HPSEB.** The modalities of the incentive and the mechanism of refund of incentives as penalty for non-implementation have been elaborated in Section 9 of the Tariff Order on 'Incentives linked efficiency improvement scheme'.*

- (vi) That the Commission is not mandated to provide any incentive to the Board to discharge its statutory duties including inter-alia undertaking and implementing reform and restructuring of the Board. In this regard, it is pertinent to note that the Commission is obliged in law to examine the Annual Revenue Requirements \*ARR) of the Board and only allow the legitimate costs likely to be incurred in the forthcoming financial year while determining the tariff. The fact that the Board has

- not claimed any pass through of costs under this head of expense, the approach adopted by the Commission in allowing Rs. 50 crore in the ARR of the Board and levying a surcharge on the consumer is not sustainable in law. The appellant prays that expenditure on reforms (if any) should be met by the Board by bringing in efficiencies and savings in its operations and by reducing its establishment expenses and not be recovered from any consumer at this stage.
- (vii) That the Commission has suo moto introduced Harmonic Injection Penalty on consumers falling in Large Industrial and Small & Medium Industrial Power category. The appellant submits that such a penalty was neither prayed for by the Board nor were any views/objections sought from consumers before levy of this penalty. As regards the basis of the levy, the Commission was of the view that harmonics induced by non-linear loads were effecting system operation and life of the equipments connected to the system and thus it had directed the Board to ensure that loads connected at the inter-connection points do not induce any harmonic voltage and distort the supply waveform beyond the specified limits. The Commission had also directed the Board to monitor the harmonic levels at the supply points to the users and other strategic locations on the transmission system, which it considers as harmonic prone, at regular intervals of six month, to ensure proper quality of power supply and also directed to ensure that the measurements conform to IEEE Standard 519.
- (viii) That despite the fact that the Board is yet to issue any guidelines or educate the consumer on the implications of “harmonics “, the Commission has prematurely imposed a penalty of Rs. 500/- per KW of connected load per month without taking into account the fact that a consumer with a connected load of 1000 KW will have an additional

burden of Rs. 5 lacs per month which shall adversely effect viability and performance of the industrial units.

- (ix) That the Central Electricity Authority in exercise of its powers under Section 73(b) is to specify the technical standards for construction of electrical plants, electrical lines and connectivity to the grid. These regulations would cover the issue of harmonic distortions. These regulations have not yet come into force and as such any levy of penalty for harmonic injection does not have the sanction of law and deserves to be set aside. In this regard it is pertinent to note the contents of the Draft Central Electricity Authority (Grid Connectivity) Standards 2004, which have been framed by Central Electricity Authority (CEA) in exercise of power under Section 73 of Electricity Act, 2003. Chapter IV set out the grid connectivity standards applicable to Distribution Systems and Chapter V prescribes the Grid Connectivity Standards applicable to bulk consumers. It is pertinent to note that in terms of Clause 23 which specifies that a harmonic distortion shall not exceed the limits set out therein shall not come into force before five years from the date the standards become effective. Further in terms of Clause 28 which refers to the limitation on the drawal of the harmonic component of current transmission system, the consumers are to install filters to reduce harmonics generated by the equipments but this provision does not stipulate any imposition of penalties.
- (x) That the Himachal Pradesh Electricity Grid Code which sets out the technical rules for use of the State Power Transmission System does not make any mention of harmonics. In this regard the observations of the Tamil Nadu Electricity Regulatory Commission in its Tariff Order of 2005-06 are relevant. Para 2.2.3 is set out below:



*“ TNEB in its tariff proposal have stated that the extra levy is towards compensation for damages caused by harmonics and voltage fluctuation due to such loads. The Commission is of the view that only by providing filters at the source, harmonics can be contained. **Simply imposing penalty is not a solution to the problem.** The Commission directs TNEB to conduct a detailed technical study to assess the quantum of harmonics etc. and proposes remedial measures to be enforced in future on the consumer so that the extra levy can be dropped upon the installation of the required filters etc.”.*

- (xi) That the Commission has, instead of regulating the Board, imposed a penalty on only three categories of consumers. This penalty has been extended to consumers falling in the category set out below:

<b>S.No.</b>	<b>Category</b>	<b>Applicable/not applicable</b>
1	Domestic Category	Not applicable
2	Non-Domestic Non Commercial Supply	Applicable
3	Commercial Supply	Not applicable
4	Small and Medium Industrial Power Supply (SMS)	Applicable
5	Large Industrial Power Supply	Applicable
6	Water Pumping Supply	Not applicable
7	Agriculture Pumping Supply	Not applicable
8	Bulk Supply	Not applicable
9	Street Lighting Supply	Not applicable
10	Temporary Metered Supply	Not applicable

- (xii) That the fact that the Commission has without any consultation with either the Board or the consumers, imposed a Harmonic

Injection Penalty on certain categories of consumers, which has no sanction or mandate in law, the Impugned Order deserves to be modified/set aside.

5. Arguments were advanced by the learned counsel for the parties. Written submissions were also made by both. Though number of points were raised at the hearing it was confined to three points alone. We now proceed to consider the following three issues that were canvassed before us:
  - A. Whether the levy of “Reform Surcharge” of 5% on the electricity bills of consumers is sustainable in law?
  - B. Whether the Commission has acted illegally in increasing the demand charges on the members of appellant society?
  - C. Whether the levy of “Harmonic Injection Penalty” on certain consumers is justified, sustainable in law and as per regulations?

**Point A.**

6. On this issue of levy of Reform Surcharge, the respondent Board has submitted that the impugned tariff order provides for an incentive of Rs. 50 crores to it, if the Board agrees to implement reform and restructuring directed by the Commission. Modalities of the incentive and mechanism of refund of incentives as penalty for non-implementation have also been given. Tariff order inter-alia provides for levy of 5% surcharge on the entire electricity billed excluding electricity duty.
7. After the issuance of tariff order, the respondent Board informed the Commission that the Board will not be in a position

to initiate various reform directives such as re-organisation of distribution circles, training etc. and therefore it will not avail the reform surcharge of 5%.

8. Respondent Board submitted that it has also not billed the consumers for 5% surcharge and, therefore the issue does not survive. Appellants also agree that since the 5% surcharge has not been levied this year and since they are not prejudiced in this financial year, they are not pressing this point at this stage but they reserve the right to question the same in the future.

9. However, we are inclined to determine the legality of levy of Reform Surcharge as it may arise in the next year. We would like to decide and settle this issue.

10. Appellant pleaded before us that the Commission is not mandated to provide any incentive to the respondent Board to discharge its statutory duties including inter-alia undertaking and implementing reforms and restructuring.

11. At this point it is necessary to refer to the functions of the state Commissions as found in Section 86 of The Electricity Act, 2003.

**86. Functions of State Commission.** (1) *The State Commission shall discharge the following functions namely:-*

*(a) determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State:*

*Provided that where open access has been permitted to a category of consumers under section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers;*

- (b) regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;*
- (c) facilitate intra-State transmission and wheeling of electricity;*
- (d) issue licences to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State;*
- (e) promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee;*
- (f) adjudicate upon the disputes between the licensees and generating companies and to refer any dispute for arbitration;*
- (g) levy fee for the purposes of this Act;*
- (h) specify State Grid Code consistent with the Grid Code specified under clause (h) of sub-section (1) of section 79;*
- (i) specify or enforce standards with respect of quality, continuity and reliability of service by licensees;*
- (j) fix the trading margin in the intra-state trading of electricity, if considered, necessary;*
- (k) discharge such other functions as may be assigned to it under this Act.*

- (2) *The State Commission shall advise the State Government on all or any of the following matters, namely;*
- (i) *promotion of competition, efficiency and economy in activities of the electricity industry;*
  - (ii) *promotion of investment in electricity industry;*
  - (iii) *reorganisation and restructuring of electricity industry in the State;*
  - (iv) *matters concerning generation, transmission, distribution and trading of electricity or any other matter referred to the State Commission by that Government;*
- (3) *The State Commission shall ensure transparency while exercising its powers and discharging its functions.*
- (4) *In discharge of its functions, the State Commission shall be guided by the National Electricity Policy, National Electricity Plan and Tariff Policy published under section 3.*

12. It is evident from the above mentioned section of the Act that as far as the “ reorganization and restructuring of electricity industry” is concerned the function of the Commission is to advise the State Government.

13. Appellants argued before us that reforming and restructuring the Board is one of the duties of the statutory authority and therefore the Board should not be rewarded for discharging its duty. We hold there is merit and further hold that no incentive to be given to the Board/licensee for discharge of its statutory obligations. There is no statutory provision

which authorize levy of Reform surcharge. Hence such a proposal and levy is per se illegal and cannot be sustained.

14. We do take note of the anxiety of the Commission to reform and restructure the Board to improve its working and efficiency of operations. But we are not convinced that under the Act there is any provision whereby such a surcharge could be imposed on the consumers. Reform and restructuring is an important activity which discerning corporations do undertake. Any reasonable expenditure under this activity will be a business expenditure and could form a part of the ARR. There is no way in which such expenses could be recovered from consumers by imposing surcharge.
15. In view of the above position we hold that there is neither power nor authority to levy and collect Reform Surcharge and decide this issue in favour of the appellant.

**Point B**

16. Appellants have contended before us that their demand charges alone have been steeply increased in the range of 60 to 300%, in other categories there has not been such hefty increase and hence such a levy is illegal, arbitrary and uncalled for, besides being discriminatory.
17. Appellants submitted that the earlier formula was much realistic in as much as it acknowledged the genuine need of industry for variation in demand on account of variation in sales, incoming voltages or changes in demand that occur due to replacement of motors, equipment etc. The new formula gives no

such flexibility as a result of which the members of the appellant association will end up paying more in terms of penalties for overdrawals. Appellants contended that the arbitrary approach adopted by the Commission has caused a substantial tariff shock and injustice to the appellant and deserves to be set aside as the increase is contrary to National Electricity and Tariff Policy.

18. Appellants contended that the approach adopted by the Commission is inconsistent with the approach adopted by other SERCs in AP, Orissa, MP and Maharashtra in calculating Demand Charges on the basis of maximum demand recorded or 75% - 80% of the contract demand (whichever is higher) in most states. Appellants pointed out that the Commission has changed the formula to read as : “Demand Charges Rate X contract demand or maximum recorded demand during the billing period (whichever is higher)”.
19. It is pertinent to refer to the reasons given by the Commission in support of steep increase in the Demand Charges for industrial consumers, as set out in para 8.23.1 of the impugned order as under:

**“8.23 Increase in recovery from fixed charges**

*8.23.1 In the existing tariff, only 9% of the revenue of the Board is recovered through fixed charges though over 70% of its costs are fixed in nature. This imbalance in the nature of the cost and the nature of recovery is not advisable and has to be rectified gradually. Hence, the Commission has enhanced the recovery from fixed charges, by increasing the customer service charges and the demand charges, the*

*corresponding reduction in the energy charge wherever required, such that the overall objective of reduction in cross-subsidy is achieved”.*

Levy of fixed charges by way of Demand Charges is an accepted practice and permitted as per clause (a) of sub-section (3) of Section 45 of the Electricity Act, 2003 which reads as under:

*“ 45(3) The charges for electricity supplied by a distribution licensee may include-*

*(a) a fixed charge in addition to the charge for the electricity supplied.*

20. Per contra the respondent Board rightly contended that the concept of Demand Charges is in order. The Demand Charges reflect recovery of fixed cost payable by the consumer for the reservation of the capacity made by the licensee for the consumers and to insulate the licensee from the risk of financial uncertainty due to non-utilisation of the contracted capacity by the consumers. For this purpose the consumer is required to pay at least a certain amount of fixed cost to the licensee. The licensee is obliged to keep the facilities ready to supply electricity to the consumer to the extent of the contract demand at all times. The licensee is, therefore, required to ensure that the supply lines are fully charged and the facility is available to consumers to take electricity at any time. The concept of Two Part Tariff is, therefore followed to have the tariff rationalized to provide for Demand Charges and Energy Charges.

21. Further Respondent Board sought to justify that while increasing the Demand Charges/Fixed Charges, there has been a



corresponding reduction in the energy charges. The increase in the demand charges and corresponding reduction in the energy charges are matters of tariff design and it is to ensure that the HPSEB is suitably and appropriately compensated for the fixed charge.

22. Second respondent Board proceeded to contend that so long as the appellant is consuming electricity as per the contracted demand, there should be no impact on the appellant. The appellant cannot claim that it will consume electricity less than the contracted demand and, therefore, should be given a facility of paying fixed charges at a lower rate. In other words, the total energy charges for appropriate consumption by the appellant comprising of demand charges and energy charges will not have the impact of tariff hike by 4.1% to 30% as contended by the appellant. The appellant is calculating such impact on the assumption that the appellant is entitled to consume electricity at much less load factor than the contracted demand. HPSEB is required to maintain the infrastructure and facilities to cater to the appellant to the extent of the contracted demand.

23. The rationale and relevance of fixed charges is a well established and accepted principle in the Electricity sector. Fixed charges are to be recovered as a part of the fixed cost of the utility through fixed charges, so that at least a part of the fixed cost is recovered, even if there is no consumption by the consumer. It is to be recognized that when a consumer is connected to the system, the utility has to provide and keep in readiness certain capacity of the system to serve the consumer. Skilled workforce and supervisory staff is kept on the job for monitoring the system, attending to emergencies, restoring the

supply in the event of an outage, routine and periodic maintenance, meter reading, billing, bill delivery, defraying all administrative and incidental expenses indirectly connected with the consumption of energy.

24. It seems to us that the fixed charges levied on the consumer should reflect the cost of capacity requirement of the consumer, after considering the fixed cost of such system and diversity of load on the system. This logical approach would necessarily result in varying demand charges for different category of consumers and, therefore, there is no question of discrimination against the appellants. In view of this position we decide that our interference is not called for in this respect with the impugned tariff order.
25. We now turn to the basis of calculation of maximum demand. Maximum demand of a consumer in any billing period will depend on its simultaneous requirement of power. Depending on loading, season, weather conditions, variation in output etc, load varies. No load can remain constant throughout the billing period and load variations are imminent, howsoever perfect load estimation by the consumer may be. Due to such practical considerations and technical position, generally maximum demand is considered higher of the actual Maximum Demand and certain percentage (less than 100) of the Contract Demand.
26. In view of the above we conclude that the Commission ought to reconsider this aspect of the maximum demand calculation according to law. We decide this issue in favour of

the appellant to the extent mentioned above and remand it to the Commission for reconsideration.

**Point C:**

27. Appellants contended that the “Harmonic Injection Penalty” is not tenable in law in as much as it has been imposed on consumers falling in Large Industrial and Small and Medium Power categories in violation of the provisions of the Act, 2003.
28. Main thrust of the appellant argument was that the penalty has been suo moto imposed by the Commission. The respondent Board is yet to issue guidelines or regulations on the implications of ‘harmonics’ and that the Commission has prematurely imposed penalty. Appellants contention is that Central Electricity Authority (CEA) under Section 73 (b) of the Act, is empowered to specify technical standard, inter -alia for connectivity to the grid. Draft provisions by CEA do specify limits for harmonic distortions but set out that these shall not come into force before five years from the date on which standards become effective.
29. Per contra on behalf of respondent Board, it was contended that the Commission has taken progressive step to provide for such levy to meet requirements of the consumers compensating the utility for injections of harmonics. The levy should not be faulted merely because the CEA allows the same to be imposed at a later date.
30. We note that the Himachal Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff)

Regulations 2004 are silent on the levy of penalty for Harmonic Injection. We also agree with the contention of the appellants that the draft CEA (Grid Connectivity) Regulations 2004 which envisages limiting the total harmonic component of current drawn from the transmission system to 12% by way of installation of filters to reduce harmonics generated by the equipment, allows a period of five years after Regulations are framed and notified in the Gazette. This has no application to the case on hand

31. We do appreciate anxiety of the Commission about the quality of supply and that it sought to introduce Harmonic Injection penalty. But in view of the fact that the Regulations 2004 of the Commission are silent on the Harmonic Injection and levy of surcharge and CEA standards are still to come into force, such a levy of penalty for Harmonic Injections is not authorized by law and it is without authority. We therefore decide this issue in favour of the appellant.
32. In the result:
- (i) On issue 'A' we hold that the first respondent has neither jurisdiction nor authority to "levy Reform Surcharge."
  - (ii) On issue 'B' regarding increase in demand charges we allow the appeal to limited extent as above and remand the matter to the first respondent for de novo consideration in the light of our discussions.
  - (iii) On issue 'C' we allow the appeal holding that there is no authority to levy harmonic injection penalty and the levy of said penalty by the tariff order, is set aside.

33. In the result the appeal is allowed in part and remanded.  
The parties shall bear their respective costs.

Pronounced in open court on August 21, 2006.

**(Mr. H.L. Bajaj)**  
**Technical Member**

**(Mr. Justice E. Padmanabhan)**  
**Judicial Member**

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