

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram:**

1. **Shri Ashok Basu, Chairperson**
2. **Shri Bhanu Bhushan, Member**

**Petition No.6/2004  
With  
IA No 12/2007**

**In the matter of**

Fixation of Wheeling Charges in respect of Transmission System of Grid Corporation of Orissa Ltd. for wheeling of power from NTPC power stations in Eastern Region (ER) through their system to Madhya Pradesh State Electricity Board (MPSEB), Jabalpur with effect from 1.4.2001.

**And in the matter of**

Madhya Pradesh State Electricity Board

... **Petitioner**

Vs

1. Grid Corporation of Orissa Ltd., Bhubaneswar
2. Eastern Region Electricity Board, Kolkata
3. Orissa Power Transmission Corporation Ltd., Bhubaneswar.... **Respondents**

**The following were present:**

1. Shri D. Khandelwal, ED, MPPTCL
2. Shri B.P. Mahapatra, GRIDCO
3. Shri Uma Kant Sahoo, GRIDCO
4. Shri R.K. Mehta, Advocate, OPTCL
5. Ms. Suman Kukrety, Advocate, OPTCL
6. Shri Mohan Jha, ERPC

**ORDER  
(DATE OF HEARING: 19.3.2007)**

**IA No.12/2007**

The application has been made by Orissa Power Transmission Corporation Ltd. for a direction for its impleadment as a respondent in the main petition on the ground that under the transfer scheme notified by the State Government of Orissa

under Section 131 of the Electricity Act, 2003, the transmission undertaking of the Grid Corporation of Orissa Ltd along with assets and liabilities has been transferred to the Orissa Power Transmission Corporation Ltd since 1.4.2005 and therefore, Orissa Power Transmission Corporation Ltd is a necessary party to the present proceedings. The representative of the petitioner has not opposed impleadment of Orissa Power Transmission Corporation Ltd. Accordingly, impleadment of Orissa Power Transmission Corporation Ltd as a respondent is allowed. IA stands disposed of accordingly.

**Petition No 6/2004**

2. At the outset we make it clear that for the purpose of this order, Grid Corporation of Orissa Ltd.,and Orissa Power Transmission Corporation Ltd are hereinafter being collectively referred to as “the respondents”. Similarly, the references to the petitioner include the present petitioner as also its predecessors and successors.

3. The petitioner has sought to determine the wheeling charges for transmission of power through the respondents’ transmission system from 1.4.2001 onwards in accordance with the Commission’s notification dated 26.3.2001, hereinafter referred to as “the notification dated 26.3.2001”.

4. Since May 1997, the petitioner has been allocated power from NTPC generating stations in Eastern Region. The power is transmitted to the petitioner through the transmission system owned by the respondents. Initially, the power was transmitted in radial mode, but since the petitioner was finding it detrimental to receive power in radial mode on account of high frequency in Eastern Region, on its request

as contained in its Fax message dated 30.5.1997, the respondents were persuaded to operate the system in islanded mode with effect from 7.6.1997, wherein the respondents isolated their Ib TPS along with some other load from Eastern Grid and connected it with Western Grid through 220 KV D/C Budhipadar - Korba transmission line. Thus, physically the power was drawn by the State of Madhya Pradesh from Ib TPS through 220 kV D/C Budhipadar- Korba transmission line and was bartered with equivalent amount of energy from NTPC generating stations in Eastern Region at Rourkela.

5. CEA, sometime in 1998 had decided the rate of wheeling charges for use of the respondents' transmission system at 10 paise/kWh, which is said to have included transmission losses of 7.5 paise/kWh. The respondents, however, did not agree to accept wheeling charges decided by CEA. The petitioner filed a petition, being Petition No. 10/2000 seeking direction for implementation of wheeling charges decided by CEA. The Commission in its order dated 23.10.2000 had decided that the wheeling charges were payable by the petitioner to the respondents at the rate of 10 paise/kWh with effect from 1.1.1998. However, on an appeal filed by the respondents before the Hon'ble High Court of Orissa, the Commission's order dated 23.10.2000 was stayed. The appeal filed by the respondents is said to be pending before the Hon'ble High Court.

6. Meanwhile, the Commission notified the terms and conditions of tariff applicable from 1.4.2001 to 31.3.2004 by the notification dated 26.3.2001. In regard to payment of wheeling charges, it is laid down that the importing utility and wheeling utility should mutually agree on the wheeling charges as well as the transmission

losses. However, in the event of their inability to agree, the contract path method should be used for calculation of the wheeling charges and the Member Secretary of the Regional Electricity Board (since re-named as Regional Power Committee) of the region wherein the wheeling utility is located is required to calculate the wheeling charges by applying the principles specified by the Commission. In case of non-agreement on the issue of transmission losses, Member-Secretary of the region concerned was to carry out studies to determine incremental transmission losses. The notification dated 26.3.2001 further provides that in case of a disagreement with the decision of the Member-Secretary the Commission could be approached for a decision and pending the final order of the Commission, the decision of Member-Secretary is to be implemented on provisional basis.

7. For the period from 1.4.2001 onwards, the parties could not mutually agree to the charges for wheeling of power. The petitioner vide its letter dated 24.4.2001 approached Member-Secretary, Eastern Regional Power Committee, hereinafter referred to as 'the Member-Secretary' for fixing the wheeling charges in accordance with the notification dated 26.3.2001. However, till making of the present application, the Member-Secretary had not calculated the wheeling charges. Hence the present petition was filed for directions to the Member-Secretary to compute the wheeling charges in accordance with the notification dated 26.3.2001.

8. The Commission directed the Member-Secretary to calculate the wheeling charges in accordance with the principles contained in the notification dated 26.3.2001 for the period 2001-04. A copy of the report was directed to be furnished by the Member-Secretary, to the petitioner as also the respondents who, in the case of

disagreement with the calculation of wheeling charges made by the Member-Secretary were granted liberty to file objections etc before the Commission.

9. The Member-Secretary, submitted his report under letter dated 4/5.10.2004. He recommended payment of wheeling charges @ of 11.60 paise/kWh. The petitioner as well as the respondents filed their objections on the report. On consideration of the report of the Member-Secretary in the light of the objections received from the parties the matter was remanded to the Member-Secretary for fresh consideration and report. The Member-Secretary was advised to re-calculate the wheeling charges by contract path method, as specified in the 2001 regulations by considering the actual date of commercial operation of 220 kV D/C Korba-Budhipadar transmission line, line length and capital cost, if possible, based on unit costs prevailing at the relevant time, appropriate rate of interest on working capital and loan, the respondents' claim in respect of verifiable opportunity cost and incremental losses (positive or negative) on the respondents' system. In view of the remand of the matter to the Member-Secretary, it is not necessary for us to refer in detail to his conclusions.

10. After re-consideration of the matter, the Member-Secretary in his report dated 30.9.2005 recommended wheeling charges of Rs.773.58 lakh, Rs.776.77 lakh and Rs.787.32 lakh for the years 2001-02, 2002-03 and 2003-04 respectively. The other salient features of the recommendations made by the Member-Secretary are as under:

- (a) The opportunity cost cannot be expressed in clear quantifiable terms, so comparison of verifiable opportunity cost with the wheeling charges based on contract path is not possible,

- (b) Wheeling charges have been calculated as per the contract path method and for a new transmission line, and
- (c) The incremental losses for the respondents' system as a whole during the period to facilitate transfer of power to the petitioner were considered as 'nil' since studies indicated that incremental losses for respondents' system were negative during this period.

11. The Member-Secretary has firstly identified the contract path for conveyance of power to the petitioner from NTPC generating stations located in Eastern Region. The term 'contract path' has been defined in the notification dated 26.3.2001 as "the shortest route formed by a series of transmission lines capable of carrying contracted power between the point of receipt to the point of delivery in the wheeling system."

12. There was no transmission line to directly carry power to the petitioner's system from NTPC generating stations in Eastern Region. Therefore, point of receipt of power on the respondents' system has been taken as 400 kV Rourkela sub-station which is the nearest sub-station of Power Grid Corporation of India Limited to the boundary of Western Region. The Member-Secretary has considered 220 kV D/C Rourkela-Tarkera-Budhipadar-Korba (Orissa Portion) line as the contract path, though the petitioner is actually supplied power generated at Ib TPS through 220 kV D/C Budhipadar-Korba transmission line as noted above. The Member-Secretary has arrived at the wheeling charges for the contract path as under:

(Rs. In lakh)				
Sl.No.	Element	2001-02	2002-03	2003-04
1.	220 kV D/C Rourkela-Budhipadar transmission line	148.97	145.93	143.00
2.	220 kV D/C Tarkera-Budhipadar transmission line	346.09	344.14	342.53
3.	220 kV D/C Budhipadar-Korba transmission line(Orissa Portion)	114.29	123.29	139.02
4.	4 Nos. of bays at Budhipadar	164.23	163.42	162.78
<b>5.</b>	<b>Total charges</b>	<b>773.58</b>	<b>776.77</b>	<b>787.32</b>

13. The Member-Secretary has also compared the charges of the contract path with those of a new transmission line, and for this purpose he has considered 220 kV D/C Unchahar-Kanpur transmission line, with total line length of 185.55 kms. The Member-Secretary has calculated the charges for this line as under:

(Rs. In lakh)		
2001-02	2002-03	2003-04
1011.71	985.39	959.28

14. Accordingly, the Member-Secretary has recommended payment of wheeling charges by the petitioner to the respondents for the contract path as given in para 12 above, which are lower than those for the new transmission line considered by him.

15. Both the parties have filed their objections to the report dated 30.9.2005 made by the Member Secretary. Since even after the fresh report by the Member-Secretary differences between the parties remained unresolved and the adjudication of the petitioner's claim involved detailed study of the factual background and the technical

aspects, it was considered appropriate that the matter be looked into by a one-member Bench of the Commission in the first instance. For this purpose, the Commission deputed Hon'ble Shri A. H. Jung, Member, hereinafter referred to as "the Hon'ble Member", who after opportunity to the parties to the dispute was to make appropriate recommendations for consideration of the Commission.

16. The Hon'ble Member by his order dated 29.1.2007 made the following recommendations:

(a) Wheeling charges payable to the respondents shall be based on contract path method as the transmission charges corresponding to new line along contract path are higher than the transmission charges based on the existing line. The wheeling charges payable are quantified as under:

(Rs. In lakh)

<b>Year</b>	<b>Wheeling Charges</b>
2001-02	773.58
2002-03	776.77
2003-04	787.32

(b) There is no opportunity cost to the respondents for conveyance of power to the petitioner.

(c) No payment is due to the respondents on account of transmission losses as incremental losses on account of the transaction in question are negative.

(d) The excess amount collected by the respondents from the petitioner on account of wheeling charges should be refunded to the petitioner in a manner to be decided by the Commission.



(e) If more than one entity has utilized the transmission system of the respondents for transfer of power, the Member-Secretary shall allocate the wheeling charges to the petitioner in the ratio of duration and quantum of contracted power of the State of Madhya Pradesh.

17. By order dated 30.1.2007 the petitioner and the respondents were called upon to give their views/comments on the recommendations of the Hon'ble Member. No comments were received from either of the parties. However, Shri R. K. Mehta learned counsel filed objections to the recommendations of the Hon'ble Member at the hearing on 19.3.2007.

18. The respondents have stated that the Hon'ble Member has wrongly observed that there was an agreement before the Member-Secretary that there were indirect losses to the respondents which could not be quantified. They have cited two instances of tripping of Ib TPS on 11.5.2001 and 19.5.2002 affecting command area load under Budhipadar sub-station. It is urged that even if the Member-Secretary wrongly did not allow any compensation on the ground that the losses were not capable of being quantified, the Hon'ble Member should have made some estimation to allow compensation. It has been submitted that in a number of cases relating to land acquisition the Hon'ble Supreme Court has taken the view that some amount of estimation or guess work is permissible for quantifying the compensation in such cases. It has been urged that the new transmission line envisaged in the notification dated 26.3.2001 should be capable of carrying the contracted power, which in this case should include a HVDC back-to-back station. It has been alleged that the Hon'ble Member has wrongly held that inter-regional power transfers in radial mode

were feasible without HVDC back-to-back station on the ground that even presently power is being transferred from Eastern Region to Northern Region in radial mode and also till recently between Northern Region and Western Region in radial mode. According to the respondents, the Hon'ble Member failed to appreciate that it was not possible for the petitioner to avail power in radial mode until synchronization of Eastern Region with Western Region on 3.2.2003 and accordingly, the Member-Secretary should have taken into consideration the cost of HDVC back-to-back station for calculation of cost of the new transmission line.

19. The respondents have further urged that the Hon'ble Member erred in taking the view that para 4.9.2.3 of the notification dated 26.3.2001 refers to special arrangement by way of backing down cheaper generation only for calculation of opportunity cost and not losses such as those due to reduced reliability or low voltage. The respondents have alleged that the Hon'ble Member failed to appreciate that backing down of cheaper generation referred to in the notification dated 26.3.2001 is only illustrative and cannot be considered as the only instance for computation of opportunity cost. The respondents have contested the observation by the Hon'ble Member to the effect that the respondents have not submitted any details in support of their claim of load shedding is wrong as GRIDCO in its affidavit dated 26.12.2005 submitted that during low hydro conditions, as in the year 2002-03, it had to resort forcible peak hours load shedding of 50 MW per day. According to the respondents, by the special arrangement of islanded mode of operation of Ib TPS, the petitioner could draw 260 MW of power whereas it would have been only 100-150 MW in radial mode and the balance would have been available to the respondents for supply to their consumers. By referring to the report of the Member-Secretary to apply some

normative loss on the Ib TPS –Budhipadar transmission line, the respondents have pleaded that adequate compensation to the respondents should have been considered by the Hon'ble Member. In the opinion of the respondents, the Hon'ble Member was wrong in holding that difference in frequency of Eastern and Western Regions was 0.85 Hz and 0.84 Hz for 2001-02 and 2002-03 respectively and not 3.0 Hz as contended by the respondents. It has been submitted that the difference in frequency considered by the Hon'ble Member could be the yearly average but is not the frequency difference during the period of operation in question.

20. The petitioner in reply during the course of the hearing submitted that only quantifiable and verifiable losses should be considered and while doing so, the gains to the respondents by way of improved PLF of Ib TPS, improved frequency regime and sharing of fixed costs by the petitioner should also be considered.

21. The matter deserves to be examined in the light of the relevant provisions of the notification dated 26.3.2001, which are reproduced below:

**“4.9.2 Wheeling through SEB/State Utility system:**

4.9.2.1 In case of wheeling of power through SEB/state utility system, the importing utility and the wheeling utility shall endeavour to mutually agree on wheeling charges as well as transmission losses. In such cases, approval of the Commission shall not be required. However, the wheeling utility shall not deny use of its system merely on the basis of non-agreement on wheeling charges.

4.9.2.2 If the parties are not able to agree on the wheeling charges, the Contract Path method shall be used for calculation of wheeling charges. Monthly transmission charges of this path would be payable in proportion to contracted power vis-à-vis SIL of the lines in the contracted path. The monthly transmission charges for the contract path shall be calculated as per the provisions of this notification.

4.9.2.3 In case, wheeling utility makes some special arrangement (such as backing down cheaper generation) to facilitate exchange, the verifiable

opportunity cost or the charges calculated as per contract path method, which ever is higher, shall be payable to the wheeling utility. In any case, the wheeling charges shall not exceed the charges corresponding to a new transmission line of adequate capacity along the contracted path. The Member Secretary, REB of the region in which wheeling utility is located, shall calculate wheeling charges by applying the principles enumerated above.

4.9.2.4 The incremental transmission losses on account of wheeling shall be payable in kind i.e. the transmission losses shall be compensated by an equivalent amount of energy charged to the importing utility. In case of non-agreement on the issue of transmission losses, the studies to determine incremental transmission losses in the wheeling utility system shall also be carried out by the Member Secretary of the region concerned.

4.9.2.5 The Commission may be approached in case of disagreement with the decision of Member Secretary, REB. Pending the final order of the Commission, decision of the Member Secretary, REB shall be implemented on provisional basis.”

22. The first contention of the respondents that the statement recorded in the minutes of the meetings held on 14<sup>th</sup> and 15<sup>th</sup> September 2005 to the effect that opportunity cost claimed is not verifiable cannot be said to be the decision arrived at the meeting, is without basis. Learned counsel for the respondents has taken us through the minutes, which have been signed by representatives of all the parties, including the respondents. If the respondents were not agreeable to the minutes, they should have either objected to what has been recorded therein or could have pressed for amendments at a later date. In the objections filed before the Commission the respondents have not pointed out any discrepancy in the minutes or the conclusions arrived at by the Member-Secretary that it was difficult to quantify the opportunity cost in monetary terms.

23. The primary contention of the respondents is that the new transmission line of adequate capacity along the contracted path should have included HDVC back- to-back station as only such a transmission line was capable of carrying the contracted

power. It has been stated that the Hon'ble Member has not considered this aspect on the ground that transmission of power from Eastern Region to Northern Region was done in radial mode over 220 kV Pusauli-Sahupuri transmission line and between Northern and Western Regions over 220 kV Auraiya-Malanpur transmission line and Ujjain-Kota transmission line. The respondents have pointed out that the contracted power was transmitted in radial mode from 19.5.1997 to 6.6.1997, since they envisaged difficulties in releasing power in inter-connected mode or by isolating one of the machines at Ib TPS. However, supply of power was changed over to islanded mode at the insistence of the petitioner which was accepted by the respondents after the petitioner agreed to discuss the technical and commercial arrangement for running two units of Ib TPS in parallel with Western Regional grid.

24. It is seen that in the ERPC meetings held on 14/15.9.2005, the respondents had suggested that the cost of new D/C line from Bisra to Korba may be evaluated and based on such evaluation, a report be submitted to the Commission. This will go to show that in the respondents' own reckoning double-circuit line is capable of carrying the contracted power. Accordingly the Member-Secretary in his report dated 30.9.2005 has considered the cost of a new transmission line without HVDC back-to-back station as being "capable of carrying contracted power". There are many A.C. inter-regional lines through which power transfer has taken place on numerous occasions during the past several years. It is also to be noted that Surge Impedance Loading (SIL) of one circuit of 220 kV line is of the order of 150 MW (actual value depending on type of conductor used). A line is normally capable of carrying power in excess of the SIL. Thus, 220 kV double-circuit line is capable of carrying 300 MW, allocated to the petitioner from NTPC generating stations in Eastern Region.

Therefore, the argument of the respondents that without HVDC back-to-back station the contracted path is not capable of transferring the contracted power has no merit, as it does not have any technical basis. On the contrary, on technical considerations it is established that the contracted path or any other 220 kV D/C transmission line is capable of carrying contracted power. The respondents' contention now that the inter-regional transmission could not have been possible without HVDC back-to-back station is hypothetical and without any basis.

25. We now consider the question of opportunity cost raised by the respondents. 'Opportunity Cost' in general terms means the return that can be earned on the best available alternative use. Paul A. Samuelson and William D. Nordhaus at page 743 'Economics', 14<sup>th</sup> Edition, 1992, McGraw Hill Inc), define 'Opportunity Cost' as:

*“The value of the next best use (or opportunity) for an economic good or the value of the sacrificed alternative. Thus, say that the best alternative use of the inputs employed to make a ton of coal was to grow 10 bushels of wheat. The opportunity cost of a ton of coal is thus the 10 bushels of wheat that could have been produced but were not. Opportunity cost is particularly used for valuing nonmarketed goods such as environmental health or safety“*

26. Thus, the opportunity costs to the respondents should be equal to the net of costs and benefits in the islanded mode of operation as compared to foregone alternative, that is, power transfer in radial mode.

27. The respondents' claim is to be examined in the above context. Their main plank has been loss of reliability, unstable power supply/low voltage in Western Orissa and loss due to frequency mismatch. For the first time the respondents in their objections filed on 19.3.2007 have referred to two instances of breakdown but here again there is nothing to show that the breakdown was attributable, directly or

indirectly, to the arrangement made for conveyance of power to the petitioner. The Member-Secretary in the meetings held on 14/15.9.2005 had considered the submissions of the respondents in this regard, but found them to be highly subjective and not verifiable. The notification dated 26.3.2001 provides for considering 'verifiable' opportunity cost on account of the special arrangement made for transfer of power. The opportunity cost can be verified only by comparative study of special arrangement and the cost incurred without such an arrangement, in which case only if the opportunity cost can be said to be arising out of the special arrangement made. The case law referred to by the learned counsel for the respondents pertains to compensation for land acquired and does not provide any guidance in facts of the present case. Further, as submitted by the petitioner, the respondents have also gained by the special arrangement resulting in improved PLF of Ib TPS. It is also worth noting that the arrangement was in place since June 1997, and the respondents have continued with it without, at any stage raising the issue of opportunity cost involved. It is for the first time in the present proceedings that the issue of loss to their consumers has been raised.

28. In the letter dated 13.9.2005 addressed to the Member-Secretary, the respondents (GRIDCO) claimed opportunity costs on several counts. However, the Member-Secretary found the claims as "not verifiable". The Member-Secretary had not even considered some of the items related to opportunity cost claimed by the respondents, which has not been objected to since the respondents have filed objections on the recommendations of the Member-Secretary for not considering opportunity costs on three counts namely (a) reduced reliability due to opening of lines, (b) load shedding and low voltages resulting in commercial loss and (c) loss due to

frequency mismatch. In the above background, the Hon'ble Member was correct in holding that the transaction does not involve opportunity cost to the respondents.

29. The contention of the respondents that the Hon'ble Member has taken the view that para 4.9.2.3 of 2001 regulations refers to special arrangement by way of backing down of cheaper generation only for computation of opportunity cost and not losses such as reduced liability or low voltage is not borne by facts. The observation of the Hon'ble Member reads as under:

*4.9.2.3 Regulation of the notification refers to special arrangement in regard to opportunity cost, namely, backing down of cheaper generation this indicates that indirect losses such as reduced reliability, low voltage etc cannot be brought within the ambit of opportunity cost calculation."*

30. The Hon'ble Member does not seem to have expressed any opinion that backing down of cheaper generation can be the only opportunity cost for computing the wheeling charges. The Hon'ble Member has not considered reduced reliability, low voltage etc within the ambit of opportunity cost calculation for the reason that these are indirect losses which cannot be translated into financial losses.

31. In the affidavit dated 26.12.2005, filed on behalf of the respondents it has been stated that -

*"During low hydro conditions, as in the year 2002-03, the situation became even worse leading to forcible peak hour load shedding of average 50 MW per day. As the system frequency during peak hours was below 50 Hz, over drawal from NTPC stations was not possible from system security point view."*



32. Along with the affidavit, the respondents have filed certain calculations of loss suffered consequent to load shedding of 50 MW of power. However, no details are available to support the claim that average load-shedding of 50 MW was carried out as claimed. Further, while in para 6.1.2(b) it is stated that load shedding of 50 MW was carried out during peak hours, the calculations filed are based on 50 MW load-shedding round-the-clock. It is also clear that basic reason for load-shedding was low hydro conditions.

33. The observation of the Hon'ble Member that the respondents have not submitted any details to support of their claim of load shedding is because the claim was staked in broad terms, without giving any specific details or evidence to show that it was due the special arrangement of islanded mode of operation of Ib TPS. It appears to us that the basic reason for load-shedding by the respondents was low hydro generation and attributing it to islanded mode of operation appears to be too far-fetched. Even if power had been transferred to the petitioner in radial mode, the power situation in Eastern Region, including the State of Orissa would have remained same.

34. The anomaly regarding the frequency differential between the two regional grids as pointed out by the Hon'ble Member was only to demonstrate that claim of the respondents is without any factual basis. It appears that the respondents are claiming that on many occasions frequency differential was much more than the average value. What the respondents have ignored is that on the same analogy, on many occasions, frequency differential would be much less than average values. Therefore, the Hon'ble Member was right in use of concept of average values for the purpose of examining

the respondents' claim of mismatch of frequency. Further, the Hon'ble Member has gone on to conclude that the claim cannot be accepted on conceptual ground as well and therefore this has no monetary impact

35. As regards loss on the Ib TPS –Budhipadar line, the Member-Secretary in his report has observed that some loads were put by the respondents along with IbTPS to the petitioner and therefore, clear segregation of loss on Ib-Budhipadar transmission line is not feasible. Further, the Member-Secretary, on appreciation of evidence and facts placed before him, has found that incremental transmission losses in the respondents' system as a whole during the period were marginally negative. This has resulted in opportunity gains to the respondents as a consequence of the transaction. The Hon'ble Member has, therefore, rightly decided not to recommend any compensation on the respondents' claim of transmission losses.

36. If the power had been carried in radial mode as initially done the wheeling charges would have been as per the contract path method. There would have been no requirement to consider opportunity cost or cost of new transmission line. Since there was a switch over to islanded mode, it is being claimed to be a special arrangement to bring it within the scope of para 4.9.2.3 of the notification dated 26.3.2001, urging that verifiable opportunity cost is to be considered. Such opportunity cost should be with reference to special arrangement vis-à-vis the normal arrangement, i.e. islanded mode as compared to radial mode and not without the arrangement of carrying power to the petitioner.

37. Further, the respondents have claimed for the gains to the petitioner consequent to wheeling of power. Since the notification dated 26.3.2001 requires compensation for opportunity costs to the wheeling utility to be considered, the issue of opportunity gains to the petitioner have no relevance.

38. The respondents have lastly submitted that in addition to losses in the Orissa system, losses in the Eastern grid should also be considered while assessing incremental losses on account of wheeling of power to the petitioner. This contention deserves to be rejected because the notification dated 26.3.2001 provided for compensation to the extent of incremental losses in the system of wheeling utility. Also, the contention of the respondents that 7.5 paise per kWh earlier determined by CEA towards losses should be allowed to be charged, has no basis since this will directly contravene the relevant provision of the notification dated 26.3.2001 which provides that the wheeling utility is to be compensated only for incremental losses. As has been noticed above, the Member-Secretary's findings are to the effect that as a result of wheeling of power to the petitioner, incremental losses have marginally reduced.

39. In view of the above, we are in agreement with the findings and recommendations made in the order dated 29.1.2007 by the Hon'ble Member. It may be noted from the report submitted by the Member-Secretary that Western Region beneficiaries are required to pay wheeling charges to Chhattisgarh State Electricity Board for use of its system from the boundary of Orissa. This system consists of 220 kV Budhipadar D/C (from Orissa border) – Korba line (123 km) and two 220 kV inter-connectors (3.45 km S/C and 4 km D/C) between Korba (East) and Korba (West).

Member-Secretary, WRPC has determined wheeling charges for this contract path as Rs.228.22 lakh for the year 2003-04. In this background, the wheeling charges determined by the Member-Secretary, in the instant case (Rs.787.32 lakh for contract path of about 185 km 220 kV D/C line) are considered to be reasonable.

40. The Hon'ble Member has recommended that if more than one entity has utilized the transmission line of the respondents for transfer of power, the Member-Secretary, shall allocate the wheeling charges to the petitioner and other entity or entities in the ratio of duration and quantum of contracted power of the State of Madhya Pradesh. The Member-Secretary by letter dated 13.3.2007, has informed the allocation of wheeling charges on the basis of energy drawn and not on the basis of contracted power as recommended by the Hon'ble Member. We direct the Member-Secretary, to allocate wheeling charges to the petitioner in the ratio of duration and quantum of contracted power wheeled. The Member-Secretary, shall, within 30 days from date of issue of this order, inform both the parties of the charges so allocated. The excess payments, if any, received by the respondents' shall be refunded to the petitioner within three months thereafter, in three equal monthly installments. In the special facts of the case before us, we direct that the petitioner shall not be entitled to any interest on the excess payments made, as long as the respondents refund the excess payment received as per schedule given above.

41. With this Petition No. 6/2004 stands disposed of.

Sd/-  
**(BHANU BHUSHAN)**  
**MEMBER**

Sd/-  
**(ASHOK BASU)**  
**CHAIRPERSON**

**New Delhi dated the 23<sup>rd</sup> Mar 2007**