THE UTTAR PRADESH ELECTRICITY REGULATORY COMMISSION

IN THE MATTER OF: Suo-moto proceeding on procurement of power through competitive bidding and alternative fuel for use of bagasse based co-generation capacity during off-season.

The following were present:

1. M/s Kanoria Chemical & Industries Ltd.
2. Mr S.K Jhajhria, Sr. Vice President, M/s Hindalco Industries Ltd.
3. Mr S.K Gupta, M/s Hindalco Industries Ltd.
4. Mr Utkarsh Raghuvansi, M/s Hindalco Industries Ltd.,
5. Mr K.N Ranasaria, UP Co-gen Mills Association, Lucknow
6. Mr Durga Prasad, UP Co-gen Association, Lucknow
7. Mr Rakesh Seth, M/s Dalmia Sugar Mills,
8. Mr P.Rastogi, M/s Dalmia Cement Ltd.
9. Mr Sanjay Joshi, IL&FS, Mumbai
10. Mr Artiman Tripathi, IL&FS, Lucknow
11. Mr G.K Verma, Project Officer, NEDA
12. Mr Ram Kumar, Project Officer, NEDA
13. Mr A.K Arora, PRO, NPCL
14. Mr R.K Chakravarti, Secretary, Co-gen Association
15. Mr S.Kumar, AGM(Engineering), M/s Dalmia Chini Mills, Ramgarh
16. Mr Anil Sakhuja, GM, M/s Parle Biscuit
17. Mr S.Sinha, DGM, M/s Parle Biscuit
18. Mr Awadhesh Kumar Verma, Chairman, UP Rajya Vidyut Upbhokta Parishad
19. Mr Arun, Director(Commercial), UPPCL
20. Mr S.P Pandey, Executive Engineer(PPA)

ORDER
(Date of hearing 31.8.07 and 15.1.08)

Back ground:

1. The Commission has functions u/s 86 of the Electricity Act,03 (The Act) to determine the tariff for generation, supply, transmission and wheeling of electricity within the State and regulate electricity purchase and procurement process of distribution licensee including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements. The Commission has also function to promote co-generation 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 specifying, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of distribution licensee. The Commission has made, in discharge of above functions read with S.181, 9 and 61 of the Act, *“Uttar Pradesh Electricity Regulatory Commission (Terms and Conditions for Supply of Power and Fixation of Tariff for sale of power from Captive Generating Plants, Co-generation, Renewable Sources of Energy and Other Non-Conventional Sources of Energy based Plants to a Distribution Licensee) Regulations, 2005”* vide Notification No.UPERC/Secy/Regulation/06-1288 dated 23.3.06 (hereinafter referred to as CNCE Regulations) which is effective from 28.7.05. These Regulations deal, inter alia, with the regulation of supply of electricity from a captive generating plant, co-generation plant, mini/micro & canal based hydel plants below 25 MW and other Non-conventional sources of energy such as wind, solar, municipal waste, industrial wastes and biogas and tariffs for sale of electricity, from these plants to distribution licensee through agreements.

At present, these Regulations permit purchase of power through Power Purchase Agreements (PPAs) and defer purchase through competitive bidding under section 63 of the Act.

S.63 of the Act provides that the Commission shall adopt tariff if such tariff has been determined through transparent process of bidding in accordance with the guidelines issued by the Central Government.

The Tariff Policy notified by the Central Government under Section-3 of the Act says in clause 6.1 that, “*power procurement for future requirements should be through a transparent competitive bidding mechanism using the guidelines issued by the Central Government vide gazette notification dated 19th January, 2005. These guidelines provide for procurement of electricity separately for base load requirements and* *for peak load requirements. This would facilitate setting up of generation capacities specifically for meeting peak."*

Regarding harnessing captive generation, the Tariff Policy in clause 6.3 states that the captive generation is an important means to making competitive power available and appropriate Commission should create an enabling environment that encourages captive plants to be connected to the grid.

Clause 6.4 (2) of the Tariff Policy specifies in relation to non-conventional sources of energy generation including co-generation that, "*Such procurement by Distribution Licensees for future requirements shall be done, as far as possible, through competitive bidding process under Section 63 of the Act within suppliers offering energy from same type of non-conventional sources. In the long-term, these technologies would need to compete with other sources in terms of full costs."*

In light of the said provisions of the Act and the Tariff Policy, power can be purchased through competitive bidding since the Act came into being. As such it has become necessary that a provision be made for purchase of electricity from captive generating plant as well as non-conventional sources of energy through competitive biding that would usher competition among same type of sources elevating operational and investment related efficiencies.

After the CNCE Regulations came into effect, entrepreneurs had shown interest in bagasse-based generation and there had been rapid addition to generation capacity. This capacity would be available during the crushing season of about eight months. And it was felt that it would be in the interest of consumer that alternative fuel may be explored so that this capacity is utilized beyond crushing season.

In this context, a Discussion Paper was floated and objections, suggestions and comments were invited vide Public Notices no.UPERC/D(G)/Secy/2006/2374 dt.8/11 Dec,06 published in the Times of India, Economic Times & Amar Ujala. The copies of the said Discussion

Paper were also sent to all the State Commissions and Central Electricity Authority for comments. Distribution companies of the State, Non-conventional Energy development Agency, UP, UP Sugar Mills Co-gen Association, M/s Hindalco Industries Ltd. & M/s Kanoria Chemical & Industries Ltd. were also informed of the publication of the said notice in the newspapers.

Proceedings :

2. A Public Notice dt.22.8.07 was made in Economic Times, Danik Jagran & Times of India for hearing on the Discussion Paper on 31.8.07. In this notice, the captive generators were also requested to submit the difficulties faced by them in sale of surplus power and suggest remedial measures for consideration of the Commission.
3. The Commission has received the comments, in response to above notices, from the following –
   - i) Noida Power Company Ltd. (NPCL) by letter no. P-75/059
   - ii) M/s Kanoria Chemicals & Industries Ltd. (KCIL), by letter no. KCL/LKO/ I /464 dt.30.8.07.
   - iii) M/s Hindalco Industries Ltd., (HIL), by letter dt.27.8.07.
   - iv) UP Sugar Mills Co-gen Association, (UP Co-gen), by etter no. UP Co-gen/Secy/0141 dt.27.2.07.
   - v) NEDA, by letter no.10/23/2006-UICA dt.16.10.07
   - vi) M/s Infrastructure Development Corporation Ltd., (IL&FS) by letter dt.3.1.07.
   - vii) Upper Ganges Sugar & Industries Ltd. by letter dt.7.1.07.
4. The proposals made in the discussion paper, comments received, oral submissions made in the hearing and observations & decisions of the Commission on different issues are discussed at appropriate places.

Competitive Bidding:

5. Proposal : The proposal made in the Discussion Paper is as below:

"(3) A distribution licensee may purchase electricity by inviting competitive bids under S.63 of the Act, 2003 from among -

(i) captive generating plants desirous of setting up a generating capacity in its plant, in addition to identified captive units, for sale of electricity to such distribution licensee.

(ii) persons desirous of setting up plants for generation of electricity from Renewable sources of energy

Explanation:

Renewable sources of energy means wind, hydro, solar and biomass, bagasse, biogas, municipal waste and industrial wastes etc.

(4) The bids may be-

(i) site specific with fuel option left to the bidder.

(ii) site and fuel specific.

(iii) non site and fuel specific

(5) The bids shall be invited by the distribution licensee in accordance with –

(i) the guidelines for procurement of power through competitive bidding process notified on 19.1.05 by Ministry of Power, Govt. of India, in case of procurement from captive generating plants.

(ii) the guidelines for procurement of power through competitive bidding process notified on 19.1.05 by Ministry of Power, Govt. of India, unless otherwise provided in the standard bid documents to be made by the Commission, in consultation with distribution licensees of the State, in case of procurement from Renewable sources of energy based plants. The bid criteria specified by the Commission shall be subject to review after 5 years or as and when considered necessary.

Provided that distribution licensee may invite competitive bids for setting up a site and fuel specific plant identified by it or proposed by any person in its area of supply till time the standard bid documents are made by the Commission.

(6) The distribution licensee shall invite competitive bids for procurement of power –

(i) at any time from captive generating plants.

(ii) every two years from Renewable sources of energy.

(7) The term of procurement shall not be less than 5 years.

(8) The distribution licensee shall approach the Commission for adoption of tariff in accordance with clause 6 of the guidelines for determination of tariff by bidding process notified by GOI on 19.1.05. "

6. Submissions: The NPCL has suggested that bid criteria be reviewed after 3 years considering initial problem of stability and plant load factor. It is stated that load centres are facing transmission constraints as such suitable measures be taken by State Transmission Utility for evacuation of power.

IL&FS has submitted that the competitive bidding for procurement of power from waste to energy project be made from same source of energy and site specific projects should be preferred in view of complex nature of such project. The tariff so arrived should be accepted by the buyer with approval of the Commission or Commission may fix a ceiling tariff. Exemption is being sought from quoting net heat rate for waste to energy project. It is further suggested that the two stage procurement should not be insisted. Time lines can be compressed and distribution licensee should help developer acquiring clearance for grid connectivity.

Upper Ganges Sugar & Industries Ltd. has commented that competitive bidding would seriously affect the co-generation plants and decelerate the growth of green energy.

NEDA has suggested that the stage of competition through bidding has not yet arrived and the Commission may consider fixing preferential tariff for projects or the energy sources in view of social costs and risks involved in setting up renewable energy projects.

UP Co-gen has stated that the capital cost and operating parameters have already been optimized by the Commission in the regulations and any change in policy, like competitive bidding, will retard the process of investments and affect financial viability of co-gen projects. The association has also raised doubts of financing projects by lenders. It has further suggested that old PPAs should be allowed to remain unaffected during their period of validity. The periodicity of two years for inviting bids is also considered too short. The Association has further submitted that competitive bidding should not be implemented for renewable energy based projects for at least 5 years.

7. The Act came into force on 9.6.03 and NEP and Tariff Policy on 12.2.05 and 6.1.06 respectively. Various provisions of NEP and Tariff Policy with respect to procurement of power through competitive bidding are as below:

"National Electricity Policy:

Non-conventional Energy Sources

5.2.20 Feasible potential of non-conventional energy resources, mainly small hydro, wind and bio-mass would also need to be exploited fully to create additional power generation capacity. With a view to increase the overall share of non-conventional energy sources in the electricity mix, efforts will be made to encourage private sector participation through suitable promotional measures.

Captive Generation

5.2.24 The liberal provision in the Electricity Act, 2003 with respect to setting up of captive power plant has been made with a view to not only securing reliable, quality and cost effective power but also to facilitate creation of employment opportunities through speedy and efficient growth of industry.

5.2.25 The provision relating to captive power plants to be set up by group of consumers is primarily aimed at enabling small and medium industries or other consumers that may not individually be in a position to set up plant of optimal size in a cost effective manner. It needs to be noted that efficient expansion of small and medium industries across the country would lead to creation of enormous employment opportunities.

5.2.26 A large number of captive and standby generating stations in India have surplus capacity that could be supplied to the grid continuously or during certain time periods. These plants offer a sizeable and potentially competitive capacity that could be harnessed for meeting demand for power. Under the Act, captive generators have access to licensees and would get access to consumers who are allowed open access. Grid inter-connections for captive generators shall be facilitated as per section 30 of the Act. This should be done on priority basis to enable captive generation to become available as distributed generation along the grid. Towards this end, non-conventional energy sources including co-generation could also play a role. ***Appropriate commercial arrangements would need to be instituted between licensees and the captive generators for harnessing of spare capacity energy from captive power plants. The appropriate Regulatory Commission shall exercise regulatory oversight on such commercial arrangements between captive generators and licensees and determine tariffs when a licensee is the off-taker of power from captive plant****.*

5.7 COMPETITION AIMED AT CONSUMER BENEFITS

5.7.1 To promote market development, a part of new generating capacities, say 15% may be sold outside long-term PPAs . As the power markets develop, it would be feasible to finance projects with competitive generation costs outside the long-term power purchase agreement framework. In the coming years, a significant portion of the installed capacity of new generating stations could participate in competitive power markets. This will increase the depth of the power markets and provide alternatives for both generators and licensees/consumers and in long run would lead to reduction in tariff. For achieving this, the policy underscores the following:-

a. *It is the function of the Central Electricity Regulatory Commission to issue license for inter-state trading which would include authorization for trading throughout the country.*

b. *The ABT regime introduced by CERC at the national level has had a positive impact. It has also enabled a credible settlement mechanism for intra-day power transfers from licenses with surpluses to licenses experiencing deficits. SERCs are advised to introduce the ABT regime at the State level within one year.*

c. *Captive generating plants should be permitted to sell electricity to licensees and consumers when they are allowed open access by SERCs under section 42 of the Act .*

d. *Development of power market would need to be undertaken by the Appropriate Commission in consultation with all concerned.*

e. *The Central Commission and the State Commissions are empowered to make regulations under section 178 and section 181 of the Act respectively.* ***These regulations will ensure implementation of various provisions of the Act regarding encouragement to competition and also consumer protection. The Regulatory Commissions are advised to notify various regulations expeditiously.***

f. *Enabling regulations for inter and intra State trading and also regulations on power exchange shall be notified by the appropriate Commissions within six months.*

5.12 COGENERATION AND NON-CONVENTIONAL ENERGY SOURCES

5.12.1 Non-conventional sources of energy being the most environment friendly there is an urgent need to promote generation of electricity based on such sources of energy. ***For this purpose, efforts need to be made to reduce the capital cost of projects based on non-conventional and renewable sources of energy. Cost of energy can also be reduced by promoting competition within such projects. At the same time, adequate promotional measures would also have to be taken for development of technologies and a sustained growth of these sources****.*

5.12.2 The Electricity Act 2003 provides that co-generation and generation of electricity from non-conventional sources would be promoted by the SERCs by providing suitable measures for connectivity with grid and sale of electricity to any person and also by specifying, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee. Such percentage for purchase of power from non-conventional sources should be made applicable for the tariffs to be determined by the SERCs at the earliest. ***Progressively the share of electricity from non-conventional sources would need to be increased as prescribed by State Electricity Regulatory Commissions. Such purchase by distribution companies shall be through competitive bidding process. Considering the fact that it will take some time before non-conventional technologies compete, in terms of cost, with conventional sources, the Commission may determine an appropriate differential in prices to promote these technologies.***

5.12.3 Industries in which both process heat and electricity are needed are well suited for cogeneration of electricity. A significant potential for cogeneration exists in the country, particularly in the sugar industry. SERCs may promote arrangements between the co-generator and the concerned distribution licensee for purchase of surplus power from such plants. Cogeneration system also needs to be encouraged in the overall interest of energy efficiency and also grid stability.

***Tariff Policy**:*

For accelerated growth of the generation capacity, the policy envisage that new capacity addition should deliver electricity at most efficient rates to protect the interests of consumers. The policy stipulates the following for meeting these objectives.

5.1 Introducing competition in different segments of the electricity industry is one of the key features of the Electricity Act, 2003. ***Competition will lead to significant benefits to consumers through reduction in capital costs and also efficiency of operations. It will also facilitate the price to be determined competitively. The Central Government has already issued detailed guidelines for tariff based bidding process for procurement of electricity by distribution licensees for medium or long-term period vide gazette notification dated 19th January, 2005.***

All future requirement of power should be procured competitively by distribution licensees except in cases of expansion of existing projects or where there is a State controlled/owned company as an identified developer and where regulators will need to resort to tariff determination based on norms provided that expansion of generating capacity by private developers for this purpose would be restricted to one time addition of not more than 50% of the existing capacity.

Even for the Public Sector projects, tariff of all new generation and transmission projects should be decided on the basis of competitive bidding after a period of five years or when the Regulatory Commission is satisfied that the situation is ripe to introduce such competition.

7.1 Procurement of power

As stipulated in para 5.1, power procurement for future requirements should be through a transparent competitive bidding mechanism using the guidelines issued by the Central Government vide gazette notification dated 19th January, 2005. *These guidelines provide for procurement of electricity separately for base load requirements and for peak load requirements. This would facilitate setting up of generation capacities specifically for meeting peak.*

8.3 Harnessing captive generation

Captive generation is an important means to making competitive power available. *Appropriate Commission should create an enabling environment that encourages captive power plants to be connected to the grid.*

Such captive plants could inject surplus power into the grid subject to the same regulation as applicable to generating companies. Firm supplies may be bought from captive plants by distribution licensees

using the guidelines issued by the Central Government under section 63 of the Act.

The prices should be differentiated for peak and off-peak supply and the tariff should include variable cost of generation at actual levels and reasonable compensation for capacity charges.

Alternatively, a frequency based real time mechanism can be used and the captive generators can be allowed to inject into the grid under the ABT mechanism.

Wheeling charges and other terms and conditions for implementation should be determined in advance by the respective State Commission, duly ensuring that the charges are reasonable and fair.

Grid connected captive plants could also supply power to non-captive users connected to the grid through available transmission facilities based on negotiated tariffs. Such sale of electricity would be subject to relevant regulations for open access.

8.4 Non-conventional sources of energy generation including Co-generation:

(1) Pursuant to provisions of section 86(1)(e) of the Act, the Appropriate Commission shall fix a minimum percentage for purchase of energy from such sources taking into account availability of such resources in the region and its impact on retail tariffs. Such percentage for purchase of energy should be made applicable for the tariffs to be determined by the SERCs latest by April 1, 2006.

It will take some time before non-conventional technologies can compete with conventional sources in terms of cost of electricity. Therefore, procurement by distribution companies shall be done at preferential tariffs determined by the Appropriate Commission.

(2) Such procurement by Distribution Licensees for future requirements shall be done, as far as possible, through competitive bidding process under Section 63 of the Act within suppliers offering energy from same type of non-conventional sources. In the long-term, these technologies would need to compete with other sources in terms of full costs."

8. The interested parties were required to react on following issues framed in the discussion paper:

"(9) In consideration of the proposal, from (3) to (8), the following issues have to be addressed:

(a) all clearances and fuel linkages or arrangement shall be secured by the successful bidders.

(b) tariff shall be single part or two part as per clause 4 of GOI guidelines dt.19.1.05 in case of captive generating plants while in case of renewable sources of energy, it may be a single part tariff based on net quoted heat rate.

(c) what net quoted heat rate might be considered for plants generating electricity from renewable sources of energy i.e. wind, hydro, solar

and biomass, bagasse, biogas, municipal waste and industrial wastes.

(d) whether the discount rate and escalation/inflation rates specified by CERC may be adopted for renewable sources of energy also.

(e) Whether the timelines provided in GOI guidelines for bid process may be relaxed for procurement from captive and renewable sources of energy based plants

(f) In Competitive bidding regime, bagase based co-generation plant may offer seasonal and/or off-season supply of electricity with the use of bagase as fuel during crushing season and alternative fuel during non-crushing season. In such cases, whether the price should be evaluated based on season or for the year.

(g) the time frame beyond which these sources shall compete with conventional sources of energy in terms of cost of energy."

No person has addressed to these issues

In view of above submissions and oral discussions the Commission addresses the issues as follows:

Though the tariff policy allows future procurement through competitive bidding but keeping in view the special nature of plants in non conventional sources and observations of the affected parties, we allowed to continue the procurement from these sources as per regulations framed by the Commission.

However, in case of procurement of power from municipal waste to energy project the Commission has fixed a rate of Rs. 2.50/kWh with an escalation clause in the tariff regulation. One developer namely IL & FS has approached the Commission to increase this rate as the tariff in the regulation is not workable. However, no data was made available by the developer to justify the increase so it did not find favour to arrive at the right price for such type of power. So in it's prudence Commission allows the developer to carryout market discovery for such power with following guidelines:

1. The developer shall develop a special purpose vehicle (SPV) which shall be responsible for all clearances ,fuel linkage and agreements.
2. Developer shall develop bid documents namely RFQ & RFP documents.

3. While developing the documents standard bid document (SBD) released by MoP, GoI shall be guiding document.
4. Commission is aware that the SBD has been framed for larger plants whereas the municipal waste projects are much smaller in size therefore the changes as may be required carried out and put up for approval of the Commission before inviting bids.
5. The developer may opt for two stage or single stage biding as considered appropriate.
6. The price discovery through competitive bidding shall be adopted by the Commission in accordance with Section-63 & 86 of EA-2003 and Section-6.4(1) of National Tariff Policy and Section-5.10.5 of National Electricity Policy.
7. The ownership of the special purpose vehicle shall be transferred to the successful bidder.
8. The licensee of the area shall accept the power at the tariff as adopted by the Commission.
9. Solar power is being dealt in a separate petition.
10. The developer for any other non-conventional source may adopt the above procedure to discover market price in case the tariff provided in the regulations are found non-workable in any specific case.

Difficulties in sale of surplus power by captive generators under existing regulations

9. Submissions: KCIL & HIL have made written submission on 'difficulties in sale of surplus power'.

KCIL finds the tariff determined in the CNCE Regulations on lower side and 4% escalation in tariff inappropriate in view of inflation. It is suggested to have a uniform approach to pricing of power for captive generating plant as well as power stations of generating companies. Removal of restriction on withdrawal of banked energy during peak hours is being sought due to specific nature of industry they have. The provision of banked energy, not being more than 50% of the total energy supplied, is being also called for relaxation and banking charges reduced from 12.5% to 7.5%. Interest on security deposit is being claimed at bank rates against existing 6%. Metering is proposed at the plants. KCIL has stated that under Regulation 35 of CNCE Regulations, the grid connectivity of the existing plants have been retained and in that context, the agreement made prior to formation of Regulatory Commission should also be recognized.

HIL is stated to have signed a power supply agreement with the State Government in 1959 and subsequently commissioned a captive power plant of 67.5 MW in 1967, the capacity of which has grown to about 820 MW. Sixty MW surplus power is being sold to UPPCL under an agreement. It is submitted that the agreement signed in 1959 had been continued since then and such agreement should be recognized under Regulation 17 of the Regulations which came in force since 27.7.05 to enable HIL to supply more surplus power and even plan for augmentation of generation capacity. HIL is seeking rationalization of approach for determination of tariff which facilitates recovery of cost due to R&M of the plant and variation in the cost of coal. It is further stated that given the promotional environment, HIL will consider to put up additional capacity in the vicinity of existing plant at Renusagar provided the State Govt. help provide adequate land, coal linkage or coal block, water supply, land for disposal of ash and appropriate tariff. It further states that captive plant should not be burdened with any tax or duties on their own consumption, sale and banking.

The representatives of KCIL & HIL present in the hearing reiterated the written submissions.

10.(a) Existing PPAs: Regulation 17 of the CNCE Regulations says that captive generating plant may enter in to an agreement with the distribution licensee for sale of its surplus capacity based on Model PPA and does not recognize any agreement pre-existing to the CNCE Regulations.

Regulation 35 has permitted the connectivity with the grid or the distribution system as existing prior to commencement of these regulations.

The Regulation 11 provides, inter alia, that these Regulations shall apply to all existing captive generating plants as well as proposed captive generating plants having an installed capacity of 3 MW or above irrespective of their connectivity withy the grid.

There is no provision in the CNCE Regulation which permits continuation of agreement signed between a captive generating plant and distribution licensee prior to the CNCE Regulations came into effect. However, 'UPERC Practice Directions for Captive Power Generation' (hereinafter referred to as the Practice Direction) provides under clause 2.1 that, 'all existing CPP owners who had taken consent from erstwhile UPSEB or the State Govt. need not review their consent for the existing validity period. Status quo will be observed for their earlier agreements with the erstwhile UPSEB, regarding sale of power, banking and wheeling during the validity period of the agreements however, they will have to send details to the Commission about capacity, date of commissioning and copy of consent & agreement.' The Practice Direction has recognized PPAs signed by the captive plant with UPSEB during its validity period. KCIL and HIL have agreements signed with UPSEB which were extended from time to time. In case of HIL, the Commission has allowed UP Power Corporation Limited to continue the agreement signed with HIL vide order dated 31.03.2006, passed in review petition No. 318/2006, UP Power Corporation Limited & Ors Vs. Hindalco Industries Limited. The scheme of pricing of energy for sale and banking is different in this agreement from those provided in the CNCE Regulation. It may be inferred from the submission of KCIL and HIL that they want to retain certain provisions of agreements signed earlier with UPSEB and seek changes in other terms and

conditions, mainly in respect to tariff for sale of electricity. Stress is being laid on retention of provision of banking on the ground of nature of industry demanding so. The CNCE Regulations aim at uniform approach to regulate the supply of electricity from such plants to the distribution licensee or a consumer. In case of supply to distribution licensee; tariff, banking, connectivity and power purchase agreement shall be as per the Regulations. So far as the regulation of supply in the grid is concerned, no distinction can be made for that time existing captive generating plants and the relevant provisions, in that regard, shall apply to all such plants irrespective of any provision made or agreed otherwise in any PPA existing prior to the Practice Directions came in to force in year 2000. The CNCE Regulations offer complete solution to the requirements of these plants. KCIL and HIL have to opt either the CNCE Regulations or PPA signed earlier with UPSEB. There can not be hybrid solution. However, the Commission may, in recognition to the sprit of Clause 2.1 of the Practice Direction, allow to retain certain provisions agreed earlier with UPSEB provided both parties agree. In such case, the parties shall renegotiate PPA on the basis of module PPA provided with the CNCE Regulations with necessary changes specific to the plant and the nature of associated industry. The tariff determination is exclusive jurisdiction of the Commission as such; the tariff shall be beyond the scope of renegotiated PPA, that is to say that in case of renegotiation, the tariff shall be as provided under the CNCE Regulations. The renegotiated PPA shall however be subject to the approval of the Commission.

In view of above, following proviso shall be inserted before the existing proviso to Regulation 17(1) of the CNCE Regulations-

"Provided that any arrangement, other than tariff, made or agreed between the parties in a power purchase agreement, prior to UPERC

Practice Directions for Captive Power Generation came into force, may be continued with the approval of the Commission. The parties to the agreement shall submit renegotiated agreement for approval of the Commission with tariff as specified in these Regulations.”

(b) Tariff determination: KCIL is suggesting to adopt uniform approach for determination of tariff like that adopted for power generating companies whereas HIL says that cost of R&M of the plant and variation in coal cost should also be allowed in tariff.

If the suggestion of adopting uniform methodology of tariff determination as supplied to generating companies in the Generation Regulations is allowed, it would mean abandoning the normative tariff specified in the CNCE Regulations and shift to cost plus tariff where the tariff shall be determined on case to case basis after ascertaining several aspects relevant for that purpose i.e. a major deviation in the approach in framing the CNCE Regulations. Any radical change at this stage would be contrary to the process adopted by the Commission in framing these Regulations. Hence, change in basic approach and its integration with the tariff determination used for the generating companies shall be considered at the time of review of the CNCE Regulations.

We have dealt the case of HIL earlier and found that some of the units are very old and determination of fixed cost at the said normative captive cost would take care of investment in R&M of such units by the company.

The cost of fuel has increased over a period of time after the CNCE Regulations came into force hence variable cost of the delivered energy. Compelling the captive plant to supply energy at variable charge determined under the CNCE Regulations would be commercially unsustainable and rather discourage the plant to continue supply. Therefore it is necessary to devise adequate compensation for the price rise. The CNCE Regulations do not make any such provision.

Therefore, the Commission decides that variation in fuel cost should be compensated. For this purpose the Commission shall examine on six monthly basis the rate of coal declared from time to time by coal companies and GoI Ministry of Coal policy to arrive at the escalation factor as against 4% allowed in the present regulation and the same shall be applicable. This shall be done for power supplied from 1st April, 2008 onwards.

(c) Banking: Banking of energy shall be as provided under CNCE Regulations or as agreed in PPAs signed prior to UPERC Practice Directions for Captive Power Generation,2000 subject to approval of the Commission on a renegotiated power purchase agreement .

(d) Interest on Security Deposit: Security deposit is required u/s 47 of the Electricity Act,03 and the interest on such deposit shall be at bank rate as provided under Uttar Pradesh Electricity Supply Code,2005 (Third Amendment).

(e) Meters: Metering arrangement shall be as per Regulation 37 of CNCE Regulations. No consideration is being made at present for any change as suggested by KCIL.

(f) Tax & duties: Tax & duties on consumption and sale of electricity is exclusive domain of the State Government and therefore the tax and duties shall be as levied by the State Government from time to time.

Alternative fuel for co-generation capacity during non- crushing season

11.Submissions: UP Co-gen has submitted, in the written submission dt.27.2.07, that plants are designed to operate on bagasse as fuel. Any other fuel would necessitate modifications at an additional cost and on operation it would require extra manpower and expenses on fuel. Operation on alternative fuel may require certain clearances from Govt. Authorities. On the above grounds, UP Co-gen finds operation of the plant in off-season more expensive. They have submitted that the plants can be operated on bagasse purchased during off-season at market price from other sources. Due to these reasons, a high energy sale rate is being sought.

In the hearing on 31.8.07, the representative of UP-Co-gen reiterated the written submissions dt.27.7.07 and added further that alternative fuel, conventional or non-conventional would be a costlier proposition in terms of additional cost that would be required to make them fuel adaptable. Purchase of bagasse from the open market was suggested as the only alternative for off-season generation costing higher than the cost considered by the Commission for calculation of variable cost in CNCE Regulations. In absence of any proposal made by any person present in the hearing, UP Co-gen was directed to explore alternative fuel.

UP Co-gen has submitted a proposal of incentivising generation during off-season vide its letter dt.30.11.07. It is stated that boiler manufactures have informed that rice husk could be used for a limited period and its regular use may affect the life of boiler. The price of rice husk is also very high being in the range of Rs.2250-2500 per metric tonne. The procurement of bagasse from other sources is projected as the only solution for generation during off-season. It is further stated that incentive of three paisa per unit in the CNCE Regulations for generation beyond 60 % PLF during off-season is inadequate if bagasse is purchased from other sources. Bare bagasse price is stated to be in the range of Rs.1500-1600 per metric tonne, average transportation cost Rs.500 per metric tonne and handling charges of Rs.200 per metric tonne totaling thus to landed cost of Rs.2200-2300 per metric tonne during off-season. Higher incentive is being sought to compensate high procurement cost of bagasse and to meet additional cost on account of additional spares and O&M expenses. Variable cost in off-season has been worked out to Rs.3.81 to 3.98 per unit for bagaase price ranging from Rs.2200 to 2300 per metric tonne respectively.

In the hearing on 15.1.08, Sri. Arun Director (Distribution), UPPCL has objected to the proposal of UP Co-gen stating that the discussion should be restricted to alternative fuel as intended in the Discussion Paper. Sri. Durga Prasad, representative of UP Co-gen, submitted that although the issue was alternative fuel but use of existing boiler on fuel other than bagasse had been ruled out by the manufactures as such procurement of bagasse from other sources was only alternative to generation during off-season in which case appropriate price should be discovered for recovery of open market price of bagasse, its transportation and handling charges. The market price of bagasse is stated to be around Rs.2500 per metric tonne. Sri. S.P Pandey EE, UPPCL, PPA referred to the decision of the Commission on pricing of bagasse in Para 5.7 of Order dt.18.7.05 and contended that fuel price, in case of open market purchase of bagasse, should be determined on the basis of that decision. Sri. Awadhesh Kumar Verma, Chairman, UP Rajya Vidyut Upbhokta Parishad stated that total proceeds from sales of sugar and electricity was much higher than the input cost of sugar cane and because of that reason there was no ground to consider higher price of electricity. The Commission, in view of failure of quest for alternative fuel, focused on bagssed purchased from market for generation during off-season and suggested the parties present in the hearing to consider purchase of electricity beyond 63% PLF achieved by the plant at rate offered by the co-gen plant one month in advance to the distribution licensee who might, at first option, except the proposal or reject it. The energy rate shall be determined as per the methodology to be provided by the Commission. In the event of rejection of offer, the plant shall be at liberty to sell electricity to any other person. Sri. Arun, Director(Distribution), UPPCL submitted that the plant recovers full cost at 60% as such new rate should be applicable on generation beyond 65% PLF and mechanism for ascertaining price of bagasse might be established.

12. The scope of any fuel other than bagasse is ruled out in view of the suggestion of the boiler manufactures. Purchase of bagasse from open market is stated as only source of generation during off-season.

The Commission, in view of the above coupled with other facts viz acute shortage of power in the State breeding related issues like frequent power cuts, purchase of power through Unsheduled Interchange (UI) and open market at very high rates, purchase of power by UP from Himanchal Pradesh @ higher than Rs. 7/kWh as per news paper reports, feels it prudent to incentivise the co-gen plants to supply power to the state at reasonable rates during non-crusing season.

The price of bagasse is expected to be in the range of Rs.2250-2500 per meteric tonne inclusive of transportation and handling charges. The price prior to July,05 was Rs.1318 per meteric Tonne. Uniform price of sugar-cane prevails all over the State during crushing season because of which uniform tariff for supply has been specified in the CNCE Regulations. During off-season, the bagasse procurement price may vary from one co-gen plant to another plant across the State depending on its location and source of bagasse. The price of bagasse in the market is expected to be volatile as bagasse is also used for other applications in industries Off-season supply, from plant's own bagasse, has been considered in the CNCE Regulations at incentive of 3 paisa/unit after the plant has achieved target PLF of 60% in the financial year. In this way, there shall be two type of generation during off-season i.e. one from plant's own bagasse and second from bagasse purchased from market. A separation shall be made between these two by specifying a PLF. Therefore it is decided that incentive, as provided under schedule-II of the CNCE Regulations, shall be payable on supply made during off-season provided plant has achieved 60% PLF during crushing season and until it registers three percent rise in PLF during off-season over and above 60% PLF.

The supply made subsequent to above PLF shall be considered from bagasse fully purchased from the market. The plant shall indicate the cost of supply made from bagasse purchased from market and make an offer to distribution licensee, by 20th day of previous month if PLF is likely to go beyond 63% in subsequent month, for its acceptance or rejection. If offer is rejected, the co-generation plant may sell electricity to any other person. The electricity so purchased beyond 63% PLF shall not be considered for calculation of mandatory consumption of 7.5% under regulation 29 of the CNCE Regulations.

Since the tariff of supply from bagasse purchased from market is not being regulated by the Commission and it is left to option of the parties as such the Commission decides to provide appropriate incentive to co-generators to compensate for additional costs arising due to O&M of the plant, spares, working capital and extra efforts that goes in the endeavor. The Commission allows incentive @ 25 P/kWh as provided in UPERC (Terms and Conditions of Generation Tariff) Regulations-2004, which shall be provided in addition to the variable cost in the following manner.

1. The incentive of 3 P/kWh as provided in the Regulation shall now be upto 63% PLF.
2. After the level of operation at serial No.1 above is achieved, subsequent supply shall be considered from bagasse purchased from market and for the purpose of incentive above 60%PLF and rate of electricity beyond 63% the year shall be considered as sugar year i.e. from 1st October to 30th September.
3. For the sugar year from 1st October, 2007 to 30th September, 2008 the tariff will be as follows:
   a. PLF from 60% to 63%-- normal rate + incentive of 3 P/kWh.
   b. PLF 63% to 66%-- variable cost of Rs. 3.17/kWh (based on cost of bagasse @ Rs. 2000/Tonne.
   c. PLF 66% to 72%-- variable cost of Rs. 3.33/kWh (based on cost of bagasse @ Rs. 2100/Tonne.
   d.. PLF above 72% -- variable cost of Rs. 3.49 /kWh (based on cost of bagasse @ Rs. 2200/Tonne.

   The above variable cost shall be escalated @ 6%/sugar year.
4. For the tariff mentioned at b,c and d above the Incentive shall be @ 25 P/kWh in addition.
5. With the above the rate of electricity including incentive of 25 P/kWh for sugar year from 01.10.2007 to 30th September, 2008 shall be as follows:

i. PLF 63% to 66%-- @ Rs. 3.42/kWh

iii. PLF 66% to 72%-- @ Rs. 3.58/kWh

iv. PLF above 72% -- @ Rs. 3.74 /kWh.

The rates indicated above are ceiling rates and generator may offer lower rates to the licensee.

6. Whenever the plant is likely to exceed 63% PLF in a particular month and intimation shall be given by the co-gen plant to the by 20th Day in the previous month. The Licensee may accept or reject the offer. Incase the licensee does not respond it will be construed that the licensee has rejected the offer and the plant shall have liberty to generate and supply to any other person subject to the provisions of Open Access Regulations and through Unsheduled Import (U.I). Any other arrangement of intimation and rejection may be made with the consent of the parties.
7. The electricity so purchased beyond 63% PLF shall not be considered for calculation of mandatory consumption of 7.5% under regulation 29 of the CNCE Regulations.

Implementation of this order

13. Based on decisions taken in this Order, the amendment to Regulations shall be made as first amendment to come in to force from 1st May, 2008. The Secretary to the Commission shall get this Regulation notified in the official gazette with Hindi Translation. Pending Gazette Notification, the amendment so approved by the Commission shall be made public by posting it on the Website of the Commission and informing all persons by a Public Notice made in the newspapers.

14. The matter is disposed of.

(R.D Gupta) Member	(P.N Pathak) Member	(Vijoy Kumar) Chairman

Lucknow; Dated:1st May, 2008