CONSOLIDATED SUBMISSION on NCE TARIFF 2009

1. The Commission can go ahead with tariff determination in respect of new projects for which PPAs are going to be entered with effect from 1st April 2009. Even the Commission's Orders shall apply to the PPAs entered after 20-03-2004. Only those who had PPAs earlier to March 2004 questioned it in Appellate Tribunal. If that was not the case the Government of AP would not have requested the Commission to review the NCE tariffs. The important ground on which the Appellate Tribunal set aside the Commission's Order dated 20-2-2004 is that the policy directions of the State Government had precedence over the Commission's Order and the State Government's Order of 1994 shall have precedence over the Commission's Order. Now as the Government itself is invoking the Section 108 of Electricity Act 2003 to request the APERC to review tariffs now the APERC has powers to decide for all NCE units, even those which came up before March 2004.

2.1 In the Letter dated 12-11.2008 bearing number 7021/RES/2008 – 3, from the Department of Energy, GoAP authorizing increase in the purchase price of power from biomass units to Rs. 3.79 per unit it was mentioned at Paragraph 4, "The above enhancement of tariff given by the Government is purely on an adhoc basis…It neither gives any claim or right whatsoever to the parties concerned. No right accrues on any party to claim it as a precedent or in any manner before the APERC or any court of law including Hon'ble Supreme Court of India".

2.2 Through the letter dated 3-11-2008, bearing No. 7021/RES/2008- 2 of Department of Energy, the GoAP under Section 108 of Electricity Act 2003 requested the APERC to take up review of tariff and related issues of Biomass Power Projects immediately instead of waiting up to April, 2009.

2.3 Through another letter dated 1-1-2009, bearing No. 238/RES/2004-12 of Department of Energy, GoAP invoking the Section 108 of Electricity Act 2003 requested APERC to take up the review of Mini Hydel Power tariff and other issues which were represented by Small Hydro Power Developers Association immediately.

2.4 The above three letters did not provide any specific policy direction with respect to renewable power purchase price. It is more a request to the Commission to expedite the process. The price of Biomass power decided by the GoAP is done on adhoc basis and the same is not binding on APERC.

3. Follow environmental norms in setting up and operating the renewable power plants. Annual reports on compliance with environmental norms must be made compulsory, and some body like Pollution Control Board shall be entrusted with the responsibility to check this and give certificate. The DISCOMs on their part should have oversight mechanism to guarantee that the high price paid per unit is worth in terms of environment. Strict action shall be taken against the plants that fail to adhere to the environmental norms.

4. Some of the NCE plants like biomass, bagasse and waste to energy are allowed to use coal and other fuels other than their main source to an extent of 30% only. It is based on this the renewable sources were awarded higher power purchase price and also treated as must run plants. The nodal agency for NCE plants in our state NEDCAP shall also be made responsible for adherence to environmental norms by these plants as it is exercising powers as the licensing agency. Whichever plant violates this norm shall be penalized. While the existing RPPO has provisions to penalize DISCOMs for not achieving the stipulated percentage there is no provision to penalize the plants for not following the fuel and environmental norms, and for not supplying the agreed quantum of power. Such provisions may be included in the new RPPO Order.

5.1 In the discussion paper for new plants no new information on project costs and other items is provided. So the basis on which tariff will be decided r review is not there.

5.2 National Tariff Policy, according to clause 6.4 (1), stipulates that the Appropriate Commission shall fix a minimum percentage for purchase of energy from such sources taking in to account availability of such resources in the region and its impact on retail tariffs. Some power developers are quoting high tariffs allowed in states like Maharashtra, Gujarat and Tamil Nadu. Here it is to be noted that in these states industrial and commercial consumption accounts for higher percentage of power consumption compared to AP and can afford to purchase high cost power. But this is not the case with AP. If high cost power is purchased it will have its adverse impact on general retail tariff.

5.3 Tariff should be a two part tariff

5.4 Tariffs shall be uniform for all projects falling in a category, with upper band/limit for tariff, and DISCOMs can negotiate with the individual developers. DISCOMs should have freedom to negotiate tariffs with the developers, with tariff decided by the Commission as an upper limit.

5.5 Fuel rates/variable cost should be revised/reviewed once in 5 years along with power purchase tariff.

5.6 Short term power purchase cost shall not be taken as the bench mark for NCE prices. They are volatile, depends on time of the day and market conditions with out any relation to power generation conditions…

5.7 In the case of NRE based captive plants other than biomass plants APDISCOMs can buy surplus power at the rate equal to the tariff paid to cheapest source of thermal plants in the state.

5.8 Revenue from CDM shall be shared in the ratio of 50:50 between the developer and DISCOMs.

5.9 Launch of sale of Green Energy to be postponed until the DISCOMs are able to successfully procure the percentage of power from NCE sources as stipulated by the Commission.

5.10 At present solar thermal power is estimated to cost about Rs. 12 per unit and solar PV power is estimated to cost about Rs. 15 per unit. Such high cost power can not purchased by the DISCOMs. If third party consumers are ready to access it including the costs towards wheeling and cross subsidy surcharge it may be allowed.

6. One of the issues raised in the Discussion Note is, "Should the fixed cost be determined for 10 years or should it be determined for a period of 20 years, being the duration of the agreement period?" 10 years period was considered keeping in view the debt repayment schedule. If the developers do not have any debt repayment obligations towards fixed cost payments the same can be extended to 20 years. In this context it is also to be taken in to account that some of the NCE units received capital subsidy and this subsidy shall also be taken in to account while calculating fixed cost or debt payment towards fixed cost payment.

7.1 Under the existing Order for NCE tariff instead of actual capital costs the Commission has adopted normative capital costs. And these capital costs are on the higher side burdening the consumers and unduly benefiting the developers. Some of these are on higher than the ones originally proposed by NEDCAP, and also APTRANSCO which they claimed to be based on developers' project reports. For example, while NEDCAP proposed Rs. 2.50 crore per MW for bagasse plants the Commission adopted Rs. 3.25 crore per MW. Adoption of high capital costs will have cascading impact as other costs like O&M costs, return on equity, depreciation are based on capital costs.

7.2 Under the existing Order for NCE tariff very low threshold PLFs and high incentives are adopted. This has resulted in power purchase price from NCE units. Even when the experiences from developers showed higher PLFs the Commission adopted lower threshold PLFs to calculate incentives. The Commission has adopted PLF of 80% for biomass projects while experience showed that they have achieved more than this. Similarly, PLF of 55% is adopted for bagasse plants while these plants achieved more than 80%, and PLF of 35% is adopted for mini hydel plants while some of them achieved 100% PLF. At the adopted PLF levels commission allowed incentive of 21 to 25 paise per unit for excess power generation. If these PLFs are continued it will only shower super profits to developers and high tariffs for consumers. We request the Commission to adopt higher threshold PLFs and bring down incentives to 10 paise per unit of excess generation.

7.3 NEDCAP, as it is the designated nodal agency for NCE units, shall place before the Commission information on capital subsidy and other subsidies and support received by different NCE plants from government and the same should be adjusted while adopting capital cost and power purchase price from these plants. Some of the NCE units have obtained capital and other subsidies from the Government. This should be taken in to account while computing the capital costs of these plants. If normative capital costs are applied to these plants the promoters will be getting double benefits at the cost of consumers. Hence we request the Commission to reexamine the capital costs allowed for such plants.

Wind Energy:

8.1 At the first instance it is important to have clear idea about the total potential of wind energy in the state. The Government of AP in its G.O. Ms. No.48, dated 11.04.2008 quoting the Centre for Wind Energy Technology (C-WET) of the Ministry of New and Renewable Energy, GoI placed the wind energy potential in the state at 2100 MW. The NEDCAP estimated the potential at 2110 MW. The Indian Wind Energy Association (InWEA) estimates the potential at 8675 MW. This is more than four times the figure adopted by the GoAP and its nodal agency NEDCAP.

8.2 The InWEA in its application before the APERC contended that tariff allowed in AP is very low and because of this there was not much of wind energy capacity addition. It calculates the cost of wind energy at Rs. 4.41 per unit and suggested Rs. 4.37 per unit as levelised tariff. Here it is to be noted that there is wide variation in tariffs demanded by WEA and tariffs allowed by the states which in its own admission facilitated huge capacity addition of wind power.

State	Per Unit Tariff in Rs	Installed Capacity in 2004-05 in MW	Installed Capacity in 2007-08 in MW	Capacity Added in MW
AP	2.70	121.2	122.5	
Tamil Nadu	2.90	2057.3	3873.4	1861.1
Gujarat	3.37	268.0	1252.9	984.9
Karnataka	3.40	411.3	1011.4	600.1
Maharashtra	3.50	457.3	1755.9	1298.6
Rajasthan	3.60	284.8	538.8	254.0
Madhya Pradesh	3.97	29.5	187.7	158.2

The above table shows that though Tamil Nadu offered lower tariff than other states mentioned in the table it added more new capacity (1861.1 MW) than other states. Madhya Pradesh offered more tariff than other states but added lesser new capacity (158.2 MW) than other states. From this it is clear that lower tariff allowed by the DISCOMs cannot be taken as a reason for lower capacity addition in AP. As such the tariff demanded by InWEA shall not be accepted.

8.3 Unreliable figures on capital costs of wind energy units are coming in the way of arriving at proper cost of generating wind energy. Near monopoly condition in wind turbine manufacturing and lack of transparency coming in the way of arriving at reliable numbers. The following table adopted from the application made by the InWEA before the APERC provides per MW cost of wind power plants quoted by Suzlon Power in different states within a gap of few months:

Client	**Submission date**	**Cost per MW (Rs in Crore)**
Gujarat Alkalies	17-3-2007	5.14
Chennai Port Trust	4-4-2007	5.36
Rajasthan Mines & Minerals	23-4-2007	5.16
ONGC – Gujarat	15-6-2007	6.08
BEL – Karnataka	16-6-2007	7.45

The above table shows that the Suzlon Power Company hiked the cost of plant per MW by more than Rs. 2 crore within three months. Based on these figures InWEA adopts Rs. 5.75 crore per MW. And based on this capital cost it wants to adopt Rs. 4.41 per unit power purchase cost from wind energy units. We request the Commission not to give consent to the application made by InWEA.

Wind Power Policy of the State Government

8.4 The GoAP through G.O. Ms. No.48 dated 11-04-2008 fixed the wind energy tariff at Rs. 3.10 per unit The Order also mentioned that in case any developer offers less than the this tariff such developer would be given preference in allotment of Government land. The above G.O. did not provide basis on which the Government arrived at this tariff. Subsequently, through another G.O. Ms. No.99 dated 09-09-2008 this tariff was increased to Rs.3.50 and it was mentioned as firm and thereby depriving DISCOMs opportunity to negotiate lower tariff with the developers. We request the Commission to adopt Rs. 3.10 as tariff per unit allowing the DISCOMs freedom to negotiate for lower tariff with the developers.

8.5 Usually land allotted to wind energy plants by the Government relate to common property resources, revenue forests and reserve forests. While allotting these lands for erection of wind energy plants care shall be taken to see that the local communities access to these lands is not taken away. The local communities depend on these lands for grazing, fuel wood collection and non-timber forest produce (NTFP).

Biomass Power Plants:

9.1 Through the letter dated 3-11-2008, bearing No. 7021/RES/2008- 2 of Department of Energy, the GoAP requested the APERC to take up review of tariff and related issues of Biomass Power Projects. Biomass Energy Developers Association

(BEDA) requested to adopt Gross Calorific Value (GCV) of 2900 kcal.kg, Station Heat Rate (SHR) of 4500 kcal/kWh, fuel cost of Rs.2000/MT and O&M cost of 7%. In fact all these issues were discussed in the Commission's Order dated 20-3-2004 and the Commission adopted lower figures. Adoption of BEDA's request will lead to higher power purchase cost and hence will burden the consumers disproportionately. Even the rate suggested by the DISCOMs at Rs. 1520 per MT is on higher side. Fuel cost per MT shall not be allowed more than Rs.800. One of the problems in availability of fuel is in allowing excess capacity of Biomass Plants. NEDCAP shall take responsibility for this, and consumers shall not be burdened. Regarding the O&M costs we draw the attention of the Commission to the application of InWEA. In it they asked for 1.5% towards O&M costs. The same adopted for biomass plants also.

9.2 Through the earlier Order on NCE tariff the Commission banned further approvals for biomass based power plants in the background limited availability of fuels. But the DISCOMs in the information provided to the Commission as a part of review of RPPO order stated that NEDCAP is sanctioning new plants. The Discussion Note also mentioned permission for 8 plantation based biomass plants. Whether these are within the limitation imposed by the Commission or out side it.

10. Not to lift ban on new biomass based power plants. The said ban was imposed after it was clearly felt that the existing plants themselves are not able to run full capacity because of lack of renewable biomass sources. During the last few years there is no sign that these sources have increased to warrant lifting the said ban. If the ban is lifted not only the prices of these fuels would increase these plants may resort to environmentally harmful measures like felling trees indiscriminately, even in forest areas near the plants. Many such instances have taken place in the past. It is based on such experiences that the Commission had imposed the ban on new biomass based power plants. Even new CPPs based on biomass should not be allowed. According to the Discussion Paper DISCOMs have commented that though the installed capacity of non-conventional projects as a percentage of total installed capacity is over and above the specified 5% the total purchased energy as a percentage of total purchase by the DISCOMs is falling short because of shortage in fuel availability for bagasse and biomass based plants. Given this fact also, the ban imposed on biomass plants shall not be lifted. If the ban is lifted it will lead to sky rocketing of fuel prices, which will not be affordable.

11. Given the precarious position with regard to availability of fuels for biomass plants no new biomass plants over and above the limit stipulated by the Commission in its 2004 Order shall be allowed.

12. The Discussion paper refers to a letter from Rice Millers for plants to be set up on rice husk. The above said ban also covers these plants also. Most of the biomass based allowed are based on rice husk. When they are already running short of fuel there is no meaning in allowing new units. It is also important to note that the area under paddy did not increase, but in fact it declined. While area under paddy declined from 42,43,000 hectares in 2000-01 to 39,78,000 hectares in 2006-07 total production of paddy declines from 1,24,58,000 tonnes to 1,18,72,000 tonnes during the same period. Given this fact no new plant shall be allowed in this category. The problems sited by the Rice Millers can be solved by relocating the biomass based plants to the rice mills facing these problems!

13. Not to allow Rice mills to sell surplus power to DISCOMs or other consumers. If they are allowed to sell their surplus power, the existing biomass power plants depending heavily on rice husk will be affected very adversely. In case the Commission decides to allow sale of surplus power by rice mills they may be allowed at the rate power is being procured from cheapest coal based thermal plant in the state. Here it is to be noted that these plants might have or will recover fixed costs during captive power consumption. The same shall apply to other NCE based captive plants willing to supply surplus power to APDISCOMs.

Bagasse Plants:

14.1 For the bagasse based plants DISCOMs suggested fuel cost of Rs. 950 per MT. We suggest that old rate of Rs. 575 per MT shall be continued.

Mini Hydel Plants:

15.1 There is demand to increase the threshold PLF for Mini Hydel stations from the present 35%. to higher levels (NEDCAP letter dated: 11-12-2008) This may be allowed and along with it per unit fixed cost needed to be revised downwards keeping with the increased threshold PLF. Here it is also to be mentioned that pre 2004 rain fall was low and on that basis lower PLF of 35% was adopted. During 2004-09 rainfall was higher and in fact developers should not have any complaint. Given higher rain fall it is prudent to adopt higher PLF.

15.2 No royalty need to be paid to the irrigation department as there is no actual consumption of water, all the water joins the canal/stream again downstream of the mini hydel plant. No water is lost for irrigation.

Municipal Waste to Energy:

16.1 As there are a few municipal waste based power plants it should be possible to arrive at a cost based tariff rather than tag it to the benchmark price decided in 1994-95.

16.2 Selco International had written a letter dated 16-12-2008 to the GoAP requesting for revision of tariff for its waste to energy plant. There appears to be no letter from the GoAP to the Commission recommending any hike in tariff for this class of plants. As the tariff already adopted is quite high no upward revision shall be taken up for this category of power plants.