November 19, 2007

Shri. Sushilkumar Shinde
The Minister for Power
New Delhi

## Subject: Suggestions on the Proposed Hydro Policy

Respected Shri. Sushilkumar Shinde*ji*,

We understand that the government is reviewing the draft of a revised hydro policy and is expected to announce the revised policy soon. Given the importance to the country of developing hydro resources while ensuring a balance between economics, efficiency, and equity considerations; Prayas would like to draw your attention to some issues.

We first discuss some process issues, followed by techno-economic governance issues in the existing policy regime, and finally we comment on certain modifications to the policy that are reportedly being considered. The issues we raise are critically important because: (a) an increased role in hydro development is being considered for private players; and (b) dams are being planned in sensitive areas such as the North-East and the Himalayan region.

## Process issues – Participation and Transparency:

Earlier, while developing the EAct and associated policies, MoP had invited comments from stakeholders. This welcome move enhanced transparency and participation in the process. However, we wonder if the MoP is moving back from this protocol. The draft hydro policy has not been made public (other than the May 2006 draft), even though fundamental changes seem to be under consideration.

Most large dams in the country (such as Narmada, Tehri, and dams in the North-East) have faced significant social issues. Therefore, MoP should have invited organizations voicing concerns related to hydro projects for a dialogue to enhance the acceptance of decisions and robustness of the policy. <u>Going forward, we suggest that</u> MoP should take the opinion on the draft policy of the parties to be affected, and also of the CERC.

Following the Conference of Chief Ministers on the power sector, the Group of Power Ministers met and created a Task Force on Hydro Power Development. The Task Force has much greater representation of hydro-power producing states, with West Bengal and Rajasthan being the only two consumer states on the task force. We suggest that the <u>Task Force should have a broader representation</u>; specially from power consumers, consuming SEBs, NGOs, and project affected people. This will help the government to get a more representative set of views.

## Techno-economic governance issues:

Some of the problems arising out of the existing policy regime are discussed below. We hope the revised policy clearly addresses these.

***Asymmetric Incentives***: The current tariff regime results in an asymmetric division of risks between the hydro-power producers and the buyers. Because capacity charges are paid on the basis of plant availability and not actual generation, it is possible for a generating station to claim full capacity charges along with incentive even when the actual generation is low due to low water availability. This results in a high tariff for consumers. In contrast, during periods of high water availability, energy above the design energy is sold and the developers keep the entire benefit. Effectively, the entire down-side of hydrological risk is borne by the consumers, while the up-side benefits are kept by the producer. This is not a fair policy. We suggest that developers should bear the risk of any shortfall in generation below the design energy. For a properly designed system, the developer would incur losses only in 10% of the years, whereas in 90% of the years the developer would get an incentive.

***Lack of incentive for efficient dam design:*** The skewed distribution of risks and rewards also results in the lack of an economic incentive for using 'realistic' hydrological data or 'optimum' designs for dams and hydropower plants. Several dams are delivering electricity benefits lower than estimated indicating that there is a problem. Removing the asymmetry and providing fair treatment to the consumer interest will give a much-needed incentive for optimum design and avoid wastage of public resources. The policy should specifically direct the CERC to modify its hydro-tariff regulations to incorporate such a change at the earliest. If this is not done, there is a grave danger that over-designed dams and power plants, resulting from optimistic (or unrealistic) assumptions regarding hydrological data will waste significant amounts of public resources and cause unnecessary submergence of large areas. The risk is amplified as the hydrological data in North-East as well as Himalayan region is not sufficiently robust.

***Under-performance of Dams***: In several cases there have been gross differences between the actual performance of hydro plants and the assumed design performance. We recommend that MoP undertake a review of the actual performance of hydro plants compared to the design parameters (including the actual power generated and peaking power generated). The lessons learnt would provide huge benefits as the country is planning to build several large hydro plants.

***Accountability for design and implementation***: For some dams, we have seen that even simple estimates like those for submergence levels have gone wrong; the number of affected people has been grossly under-estimated; and Environmental Impact Assessment Reports have been of unacceptably low quality. While such serious issues in preparation, design, and implementation have persisted, dam construction has gone ahead unabated. The revised hydro policy should clearly spell out accountability measures for such issues.

Dams have considerable downstream impacts. The financial impact of dams on downstream areas should be properly studied and directly borne by the project.

## Modifications in Policy Being Considered

Based on media reports we gather that the following proposed changes are being discussed.

***Allowing promoters to sell 40% electricity on merchant basis***: If this is allowed, the average electricity tariff would go up substantially! Effectively, the RoE for the project would increase substantially beyond 16% - it could be as high as 25 to 30%. This would further tilt the balance against consumers, considering the existing unequal sharing of risks discussed above. We suggest some alternatives: (1) Allow a slightly higher RoE (say 20%) for hydro projects, (2) Give the purchasing agency first right on the power, and only when the bulk purchaser does not want power, the promoter should be allowed to sell power on the market and (3) In such situations, allow an additional 5 P/kWh as incentive (to the promoter for selling electricity in market), with the remaining benefits of the sale going to the contractual buyer of the power.

***Return of Cost-Plus Regime***: There have been some suggestions that tariff based bidding should not be mandated for hydro projects because of the high level of geological and other risks, and instead cost plus tariffs be allowed. There are several serious problems with this suggested change: (1) It goes against the principle of allocating risk to those parties best able to manage it; (2) It would be impossible to select the promoter objectively. Only the promoters that are confident of getting the regulatory approval of the cost increase (from CEA / Regulatory Commission ) would remain interested. This would stifle 'competition', which is otherwise being promoted by MoP for enhancing consumer benefits. In some states such a process has been criticized in the past; and (3) The regulator would have a heavy burden of sanctioning the cost increases. Even in simple and standard plants such as CCGT and coal based projects, the benefits of competitive bidding were clearly visible in the case of Ultra Mega Power Projects. The government should clearly spell out how it plans to tackle these issues.

Taken together, the two modifications being proposed per media reports may result in a risk-free project for the promoters, while the risks associated with hydrological and geological uncertainty as well as inefficient design would all be borne by consumers. In such a scenario, like the MoU based IPP projects, we will have a major problem controlling 'cost padding' and 'gold plating.'

***Local Area Development Fund***: Another change being proposed is that the state's share of free power be increased from 12% to 13% and that proceeds from 2% of the power be deposited in a local area development fund. We do not know the basis of the figure of 2%, which appears to be small. While the creation of such a fund is a positive development, it is important that the <u>control and utilization of the local area development fund</u> be specified clearly. The decision on this issue should be arrived at only after discussions with the affected peoples' organizations.

***Miscellaneous:*** A related change that is being considered is that the developer will share the cost of RGGVY in the 10 km radius of the project. This is a paltry sum for all major projects and probably not worth mentioning. But for small projects it will be a major disincentive. So the proposed change is <u>biased against small projects</u>.

We request the ministry to articulate the rationale for the new initiatives in the policy and highlight ways in which the potential negative impacts could be minimized. We also hope the ministry conducts public consultation on the draft policy, before it is finalized.

We will be happy to answer any questions you may have on the issues we have raised.

Sincerely,

Girish Sant
For Prayas Energy Group

Cc: Members of Hydro Task Force, State Energy Secretaries, Regulatory Commissions