

OPEN ACCESS: UNFINISHED AGENDA OF POWER SECTOR
REFORMS IN INDIA

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**ISSUES IN REGULATIONS AND IMPLEMENTATION OF OPEN ACCESS AND
SUGGESTIONS FOR REFORMS**

ABSTRACT:

The Electricity Act of 2003 ushered power reforms in India. Open access regulations in the Act are of seminal importance. This paper attempts to see the developments in India in the last seven years in the implementation of the regulations and as to whether the results are optimal with respect to the policy objectives with which they were designed. The aim is to find out the limiting factors in the design of regulations and in their implementation which may have hindered the growth of power generation in the private sector on one hand and have not resulted in the efficiencies in the sector to give the advantage of lower cost of electricity to the consumer. The author had been the chief executive of one of the leading distribution company in India for three years and had been involved intricately with the implementation of these regulations. The first hand experiences of dealing with various situations arising out of the regulations have been used to prepare this paper. The problems are identified and a possible solution is attempted at. The differences among the various important stakeholders have reached a point where it needs an immediate redressal otherwise the reforms will suffer irreversibly. The differences are not insurmountable and if properly addressed would result in proper yield of the reforms.

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Introduction:

Open Access Regulations in transmission and distribution is a must for the development of private sector power generation and in the development of market for distribution entities. If a consumer can choose the power supply without being constrained due to its location, the market for power generation grows as the ownership of the intervening network does not pose an obstacle. The charges payable by the generator for using the network should be reasonable and access should be non-discriminatory. This will not only ensure the power flow to the deficit areas but also facilitate optimal use of the network and investment in the network by the distribution and transmission utilities based on the actual demand of the region rather than on their capacity to procure and distribute power.

Open Access is not relevant if power generation, transmission and distribution are entirely within the domain of Public Sector. India has to rely on private sector for capacity creation in order to meet its demand of energy at the rate at which it is growing. Open Access Regulations are provided in The Electricity Act of 2003, which brought fundamental reforms in the power sector and had been the corner stone of development of the private enterprise in the power sector.

This paper attempts to find out the limiting factors in the success of open access regulations in India, as after 7 years of the enactment, the number of consumers on the open access remains very small. The major consumers remain the public sector distribution licensees rather than bulk consumers in Industrial and commercial sector. The generators have complained of discrimination and denial of open access permissions by the state owned distribution and transmission entities and the distribution licensees have complained about renegeing on valid power purchase agreements by the power producers to go for the kill through profiteering in an energy deficient scenario by changing their clients through open

access. By analysing the reasons for the stunted growth it may be possible to prescribe a remedy based on International experience and national conditions.

STATUS OF OPEN ACCESS IN INDIA:

Power sector in India saw the reform movement in late nineties and took a firm shape through The Electricity Act 2003. One of the most striking features of the reforms agenda was to open the sector for generation and allow a market to develop, where the independent power producers can sell their power to consumers directly. The consumer can be a bulk supplier like a distribution licensee or can be an individual consumer (mainly a big consumer known as HT customer ,HT being an acronym for High Tension). The consumer can directly negotiate with the generators, without bothering about as to who owns the enabling network, provided a fees is paid to the network owners known as surcharge.

Though simple sounding, this provision brought the fundamental shift from tying all generators to the distribution licensees of the state, where the power plant was located, to making them free to choose their clients on commercial terms on one hand and allowed the consumers to choose generators from across the country to meet their energy needs on the other. As, at the time of enactment both the generators and the distribution licensees were predominantly state owned, this provision made the beginning of the power generation in the private sector with private producer planning for the demand of the whole country or region and the location of the plant becoming independent of the demand of the state, where it is located . The distribution licensees, though mostly controlled by the Government, could at

least tap the private market to get additional power from outside the state and it also paved the way for a private distribution licensee to start operations without relying on the state controlled generators .The important provision allowing a customer to choose the supplier was again a very welcome step as it meant that the distribution licensee could no longer continue loading the cost of its inefficiencies to a HT customer, who may directly go to an efficient generator leaving the distribution licensee in whose jurisdictional area it is located without fearing the discrimination which such a licensee can force against such customer.

Thus, if the success of the reforms with respect to open access has to be measured, we have to look into three areas:

1. Number of high value customers going for open access.
2. The amount of energy tied up through such exchange.
3. The creation of a market for energy.

On the first parameter it has met with some success if the distribution licensees are considered as customers and had not achieved noteworthy success in individual high value customers opting for open access.

STATUS OF OPEN ACCESS IN DISTRIBUTION (As on 31.05.2009)

- Total OA Applications received = 193
- OA Capacity Applied for = 18189.11 MW
- Total OA Applications approved = 132.00 (68%)
- OA Capacity Approved = 15152.89 MW (83%)
- OA Transaction Implemented = 1626.29 MW (9%)



Figure 1: Source S. K Chatterjee CERC 7th July 2009

It may be noted that only 68% of the applications for open access were only accepted. Which is an indication of the resistance to the open access by the state controlled State Load Dispatch Centres, the reasons may be many, valid or otherwise. Though the OA capacity was approved for 15152.89 MW the actual transaction was less than 9% . It is almost 1% of the installed capacity of the country.

The exchange is mainly due to the transactions which the distribution companies are entering with the generators and not due to the High Tension Customers going for open access. This indicates a very small impact of OA regulations on energy distribution pattern.

The contribution of open access in creating a market which drives competition and reduces the cost has been marginal and is the most important criticism of the implementation of the policy.

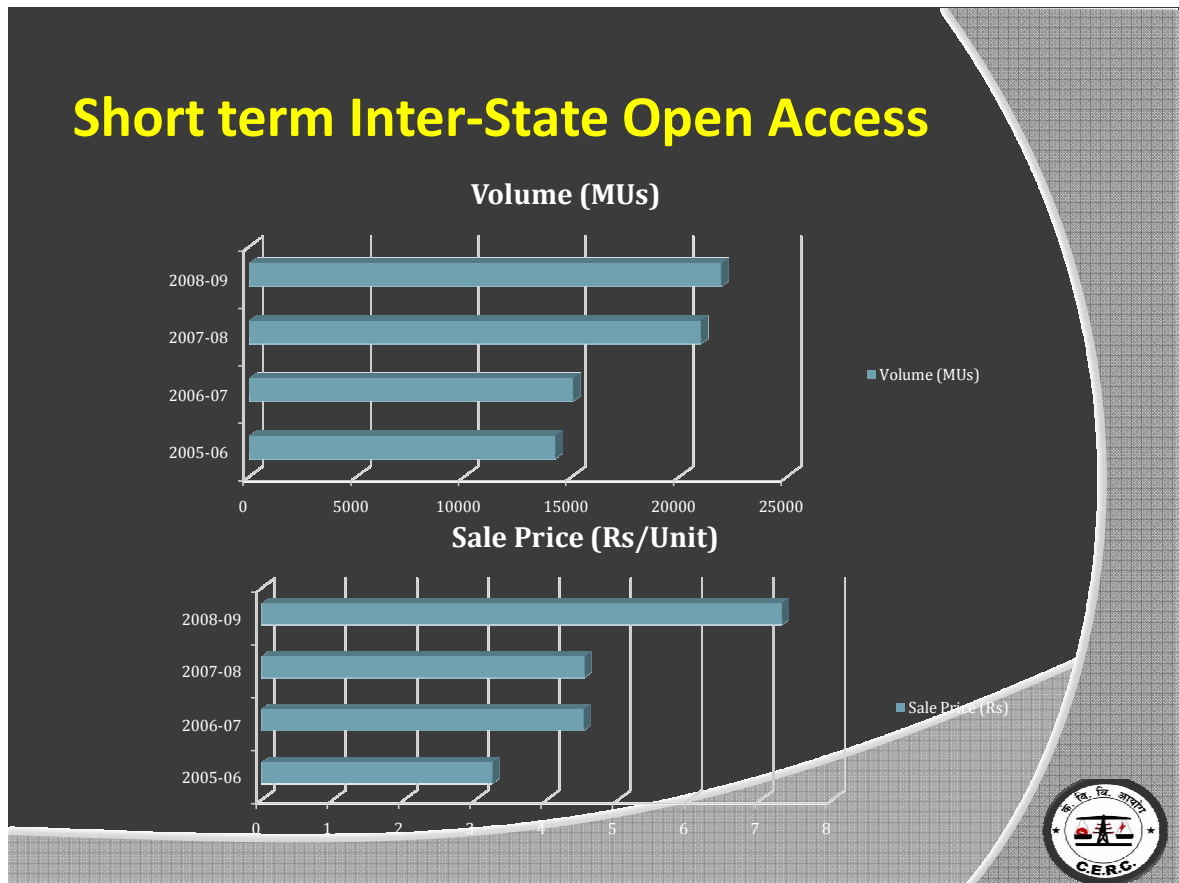
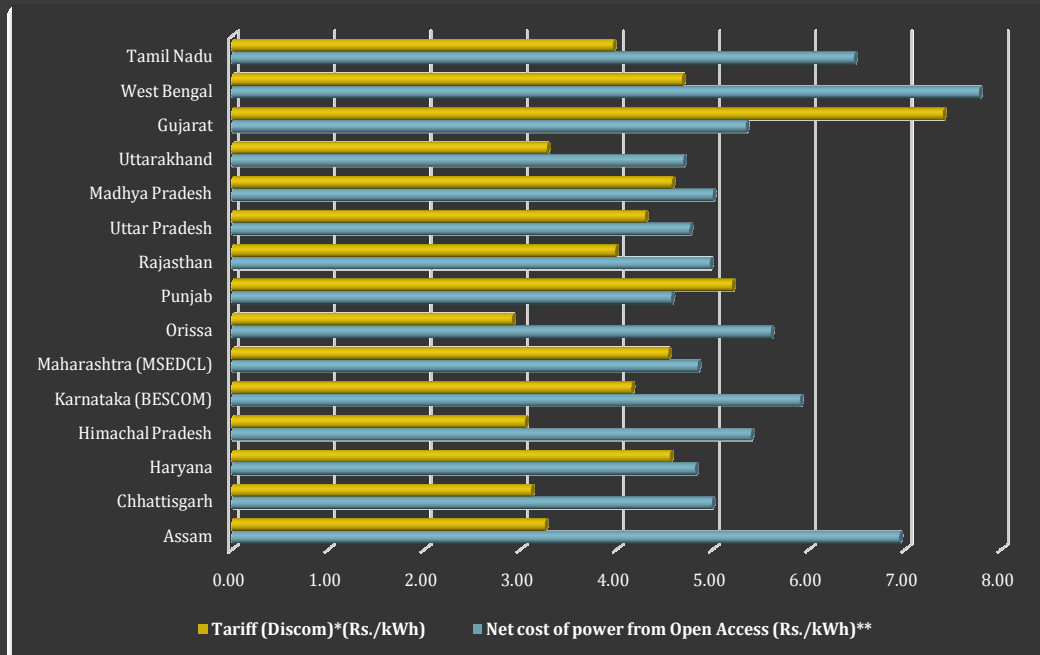


Figure 2: Source S. K Chatterjee CERC 7th July 2009

The volume of energy on the short term open access increased to 20000 mu in 2008-09 from 14000 mu in 2005-06, but the prices shot up in one year from Rs. 4.25 in 2007-08 to Rs. 7.00 in 2008-09 . 2008-09 was a drought year and it clearly explains as to how the profiteering drove the price up though there was not any increase in coal based cost of generation.

Again it is significant to note that the state owned distribution companies vied with one another to tie up the power at the cost of their very survival as the average tariff realisation lagged behind the average cost of procurement of power via open access route.

Comparison of cost of power through Intra-State Open Access and Distribution Utility - Illustrative Cases



*Tariff for an embedded consumer of 5MW at 11 KV (33 KV in some cases).

**Effective Open Access Charges for consumer of 5MW at 11 KV (33 KV in some cases) in addition with a assumption of power purchase cost of 4Rs./kWh.



Figure 3: Source S. K Chatterjee CERC 7th July 2009

Except two State- owned Distribution companies, all others made loss by selling this high cost power which was procured through open access. The highest difference between the cost and realisation was in Assam, where the realisation of tariff was less than half of the cost of the procurement.

The high cost of procurement in adverse environmental conditions of drought forced many states in India to invoke the section 11 of The Electricity Act 2003, which provides for the state intervention in adverse and emergency conditions to force the generators to sell the

power to the state within which it is located, at the state determined price. This has been seen by the generators as putting the clock back and nullifying the provisions of open access. So much so that the two provisions of the act, one for the open access and other for the emergency provisions are seen as the dialectics.

Of course, without taking a holistic view of the sector and without considering all the factors which impact on the creation of market and competition and the relation among them, it would be erroneous to conclude that the open access alone is the reason for the stunted development of the energy market. However it is evident that as one of the most important instrumentalities for bringing the sellers and buyers on a non discriminatory platform to promote market, it has not been able to address the concerns of the players who constitute the market.

REASONS FOR THE SUB OPTIMAL RESULT:

Let us look into the reasons for such lacklustre performance. Very often the blame is put on the distribution companies along with the state owned utilities for blocking the permission on one ground or the other, thus throttling the spirit of the open access. What may be the concerns of a distribution utility and why it may be a reluctant partner in implementing the OA regulations as they exist? The misconception that the distribution utilities fear the loss of high paying customers who cross subsidise the other customers to the OA has to be removed. The Act itself provides for surcharge arising out of such cross subsidy besides the surcharge for providing the network, hence this may not be the reason for any objection to OA regulations.

1. LACK OF DISPUTE RESOLUTION MECHANISM:

The lack of time bound effective dispute resolution mechanism is the core reason of mistrust between the state owned distribution companies and the generators which manifests in invocation of section 11 of The Electricity Act.

The OA regulations work best under the surplus power scenario, where more than one supplier is willing to supply to customer, bringing in competition and reduction in the prices of power. In the deficit scenario and the one which is going to prevail in our country for quite some time the market is loaded in favour of the generators, the rates which are prevailing are exploitative. In these conditions the private suppliers are constantly looking into profits by reneging their existing contracts with distribution companies and are applying for OA to supply to different distribution company at a higher rate. The present regulations have been very inadequate in preventing this situation. Since the transmission utilities/state load despatch centres are not supposed to look into the disputes raised by the distribution company the unscrupulous supplier gets the OA permission when the rates in the market are very high due to the stress period and the distribution company is left to fend for itself by raising dispute before regulators or courts. By the time the dispute is resolved the stress period gets over and the distribution utility is already bled. The deficit scenario demands a much tighter control mechanism to prevent the misuse of the regulations.

2.MARKET INTERVENTION BY THE REGULATORS:

The regulators have not interrupted the trading in energy in the exchange when the rates are either too high or too low with respect to the cost of supply. This gives no solace either to the supplier during lack of demand or to the procurer during the deficit. Prudent designs of the band of prices for the energy transaction in the energy exchange, within which the transaction should be allowed, is missing hence there are

no interrupters in the market. Also linked to the same is the issue of the band for the procurement of power for short term in a bilateral agreement. Both the exchange and bilateral agreement pricing has to be designed in tandem and simultaneously. Even when the Central Electricity Regulatory Authority has issued direction for upper slab of the price, the transactions above that price, have happened without any hindrance. There had been no consensus on the prices across various states and their State Regulatory Authorities, hence no enforcement for power which is traded across states under open access.

3.OBLIGATION OF THE DISTRIBUTION LICENSEE TOWARDS OA CONSUMER:

Yet another problem lies in the customer trying to optimise its supply by opting for open access and using the distribution licensee as a backup. Which means the customer can sign an agreement with other than the distribution licensee in which area it is located under OA and if the said provider fails to supply, the customer will continue to draw the power from the network of the distribution licensee and will pay to licensee the unscheduled interchange(UI) linked rate. This is untenable, the responsibility of the network provider in case of the OA customer is just of a carrier and if the power is not supplied by the supplier of the customer the power flow should stop. It is understandable that there may be some shutdowns in generation and there are efficiency limits prescribed for the same by the regulators to the generators who supply to the distribution licensees, but no such performance standards are prescribed for IPPs as they supply under bilateral agreements. With the result the OA customer from IPP(Independent Power Producer) can take power at a low plant load factor and still get the supply from the licensee at UI linked rates. This goes against the power supply planning of the distribution companies and is also discriminatory as the

licensee is not charging the UI linked rates to other customers who have not gone to open access. There should not be any obligation of the distribution licensee to provide power to the OA customer if its supplier stops providing power except for the predetermined standards of performance which may stipulate an agreed PLF(plant load factor).Needless to say that it is ludicrous to allow OA on the basis of generation, the PLF of which is very low.

This confusion has arisen because of the provision of OA on one hand (sec42(2) of The Electricity Act 2003) and duty of the licensee (sec 43(1) of The Electricity Act). This situation has to be set right by clearly stating that the duty of distribution licensee gets over as soon as the customer opts for OA, unless this is done this would remain a contentious issue liable for different interpretation by different regulators. In the guise of universal obligation to the consumer of its area the distribution company will suffer as it has to make provision for the power which may be required by the consumer in its area which has already gone to the open access and continue to serve at UI rates.

4.PRICING OF POWER FOR THE OA CONSUMER BY THE DISTRIBUTION

LICENSEE:

Another problem arising out of the above section is when the consumer opts for the part of the load from a generator and another part from the distribution licensee of the area in which it is located. The section 49 of The Electricity Act provides for the OA customer to go for bilateral agreement with respect to pricing. This agreement the consumer can do without reference to the regulator, which means if a customer in Bangalore is getting power from Delhi Distribution Company, then the consumer will negotiate the rate with Delhi Company without referring to any regulator. Once a customer is on OA and wants to take power from the distribution licensee of the area

also, then he may have to settle for a negotiated rate as it does not make sense to allow him to negotiate with Delhi Company and Bangalore Company has to supply power as per Commission determined tariff. Also for round the clock backup, the negotiated rates should prevail. Once the customer comes back to the distribution licensee of the area, all the duties of the licensee are restored.

SUGGESTIONS:

1. TIME BOUND DISPUTE RESOLUTION MECHANISM:

The regulators should be obliged to pass an order on the dispute arising, when the generator goes for open access and other party claims a violation of the existing agreement, in a time bound manner. Since there is no time lines the dispute resolution becomes inconsequential and one of the parties always feels aggrieved. The appeals should be minimal and at each stage the appellate authority should be obliged to pass order in a fixed time frame.

2. CENTRAL AUTHORITY FOR REGULATING PRICES:

There should be close co-ordination between the centre and state regulators to decide the upper and lower slab rates for exchange transactions as well as for short term procurement. The Central Regulator should be authorised to enable the interruptions in the market when the rates are going beyond the price bands. The upper and lower rates of short term procurements should make the transaction invalid. This will stop the exploitation of the state owned utilities by the unscrupulous energy traders and power producers.

3. LIMITED OBLIGATION OF THE DISTRIBUTION LICENSEE TOWARDS THE OPEN ACCESS CUSTOMER:

The distribution licensee is not obliged to supply the open access consumer in its area and the only obligation is to carry the power to the consumer against certain charges. The distribution licensee cannot be providing a backup or can't be asked to meet the partial demand of such consumer at the commission determined tariff.

4. NON INTERFERENCE OF THE REGULATORS IN NEGOTIATIONS BETWEEN THE DISTRIBUTION LICENSEE AND THE OPEN ACCESS CONSUMER OF ITS AREA:

Once the principle in the suggestion above is understood, the distribution licensee will have to be treated on par with the other supplier who is supplying to the consumer in the area of the distribution licensee. The consumer has only one choice either to remain with distribution licensee and remain within the commissioned (regulator) determined tariff regime or go with open access and tie up power at negotiated rate with the suppliers including the distribution licensee of the area. The ambiguity in this regard has to be set right by properly amending the act.

The use of section 11 of The Act will automatically come down if the suggestions above are incorporated. However there is a need for controlling the state's power to invoke the same as it has a tendency to substitute improper planning with state authority. The Act itself can define the extraordinary circumstances of emergency under which this power can be invoked to cut discretion. Repealing the section will be like throwing the baby with the bath tub.

CONCLUSIONS:

There is no denying the fact that Open Access Regulations are must for the proper development of the power sector in India. The concerns of distribution companies, generators, transmitters and the individual customer are not overwhelming but if ignored,

may lead to an environment of distrust which would take more time and effort to resolve and that definitely is not good for reforms.

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