Should the power sector be federalized ?

The title of this topic should really be whether power should be centralized since it is already a topic that is shared by both the centre and the states in our federal Constitution.

Electricity before the Constitution of 1951 :
Before India's independence, electricity was decentralized. It was generated and supplied locally by private entrepreneurs, enterprising municipalities and provincial governments. The hydroelectric project of the Tata's in Khandala supplied power to Bombay, as did the Mettur Dam on the Cauvery River, which supplied power to the Madras Presidency. But the emphasis was on supply to large urban concentrations, and there was little coordination or cooperation between the different suppliers. The first legislation was passed in 1877, which provided for the protection of persons and property, from injury and risks, attendant to the supply and use of electricity for lighting and other purposes. This Act was repealed and replaced by the Indian Electricity Act, 1903. "It was clearly recognized to be a somewhat tentative measure", that would be amended with experience. The new Indian Electricity Act, 1910, "to amend the law pertaining to the supply and use of electrical energy left the granting of all licenses in the hands of the local government, laying down some rules regarding safety". It was a comprehensive piece of legislation to "regulate the generation, supply and use of electricity and dealt with licensing, regulation and safety", giving considerable authority to the provincial governments.
In 1948, the Electricity (Supply) Act, 1948, on the broad lines of the Electricity (Supply) Act, 1926, in force in the United Kingdom, was passed "to facilitate the establishment of regional coordination in the development of electricity transcending the geographical limits of local bodies".
It provided "for the rationalization of the production and supply of electricity and generally for taking measures conducive to the electrical development of the Provinces of India". It enabled the creation of state electricity boards for promoting the coordinated development of generation, supply and distribution in the Provinces and in other areas of the country. Subsequent amendments introduced significant additions and changes. The Central Electricity Authority ("CEA") was created to develop a national power policy and coordinate electricity planning over the country. The Industrial Policy Resolution of 1956 reserved generation and distribution of electricity almost exclusively for the States, letting existing private licensees, however, to continue. This led to the gradual domination of the electricity sector by government enterprises. Initially the state governments were apparently reluctant to create SEB's because they would conflict with existing departments of government. However, by the late 1950's all state governments had established SEB's. Amendments in 1976 enabled generation companies to be set up by central and state governments, resulting in the establishment of NTPC, NHPC, NEEPCO, Mysore (now Karnataka) Power Corporation, and the consulting firm WAPCOS. By an Office Order in 1964 (inserted into the Act in 1991 by an amendment), Regional Electricity Boards (REBs) consisting of part-time members were constituted in 1964 to promote regional coordination and operation of power supply. These REB's had as Members, the Chairmen of the SEB's, while Members of SEB's ran the technical committees. The administrative head of the REB was an officer on deputation from the CEA and was therefore also subservient to it. Joint sector projects between states and also the central government were also made possible, as with DVC (Damodar Valley Corporation), NLC (Neiveli Lignite Corporation), etc

The Constitution was enacted in 1951 and placed electricity on the concurrent list, namely List 3. PART XI on RLATIONS BETWEEN THE UNION AND THE STATES

CHAPTER I.—LEGISLATIVE RELATIONS has a section on Distribution of Legislative Powers:

245. Extent of laws made by Parliament and by the Legislatures of States.—

1. Subject to the provisions of this Constitution, Parliament may make laws for the whole or any part of the territory of India, and the Legislature of a State may make laws for the whole or any part of the State.
2. No law made by Parliament shall be deemed to be invalid on the ground that it would have extra-territorial operation.

246. Subject-matter of laws made by Parliament and by the Legislatures of States.—

1. Notwithstanding anything in clauses (2) and (3), Parliament has exclusive power to make laws with respect to any of the matters enumerated in List I in the Seventh Schedule (in this Constitution referred to as the "Union List").
2. Notwithstanding anything in clause (3), Parliament, and, subject to clause (1), the Legislature of any State also, have power to make laws with respect to any of the matters enumerated in List III in the Seventh Schedule (in this Constitution referred to as the "Concurrent List").
3. Subject to clauses (1) and (2), the Legislature of any State has exclusive power to make laws for such State or any part thereof with respect to any of the matters enumerated in List II in the Seventh Schedule (in this Constitution referred to as the "State List"').
4. Parliament has power to make laws with respect to any matter for any part of the territory of India not included 2[in a State] notwithstanding that such matter is a matter enumerated in the State List.

247. Power of Parliament to provide for the establishment of certain additional courts.—Notwithstanding anything in this Chapter, Parliament may by law provide for the establishment of any additional courts for the better administration of laws made by Parliament or of any existing laws with respect to a matter enumerated in the Union List.

248. Residuary powers of legislation.—

1. Parliament has exclusive power to make any law with respect to any matter not enumerated in the Concurrent List or State List.
2. Such power shall include the power of making any law imposing a tax not mentioned in either of those Lists.

249. Power of Parliament to legislate with respect to a matter in the State List in the national interest.—(1) Notwithstanding anything in the foregoing provisions of this Chapter, if the Council of States has declared by resolution supported by not less than two-thirds of the members present and voting that it is necessary or expedient in the national interest that Parliament should make laws with respect to any matter enumerated in the State List specified in the resolution, it shall be lawful for Parliament to make laws for the whole or any part of the territory of India with respect to that matter while the resolution remains in force".

It would appear that the centre can also legislate on items in List 3 and it shall override any state legislation on the subject, except as directed by the Supreme Court, where the state legislation preceded that of the Centre and had received presidential assent.

Further, it is possible that electricity would have been in List 1, i.e., the central list, if the technology for long distance transmission of electricity had reached India by then. However, it is unlikely that there will be two thirds of all states that will agree as required for amending the Constitution, to move electricity to List 1 from List 3.

What if electricity had been a central subject?
The State governments, SEB's and their successors, have politicized power tariffs within the States to such an extent, that power is priced well below costs of service to farmers and domestic consumers in all states. Industry, commercial establishments and railways are overcharged to make up for the losses on these accounts. The drive to supply electricity to all rural locations has led to overloading of LT lines, zero or poor metering, misuse by farmers of free electricity given for energizing one pump set, and poor billing and collections. Thefts in collusion with SEB employees are rampant, especially in urban centres, and by the well off as well as slum dwellers, and by large as well as small industrial units. Overstaffing is rampant, as are the absence of a commercial outlook, of professional management and a sense of accountability among individual employees. Substantial cost reductions are possible if there was improved management. While political parties understand the problems, none are willing to cooperate for their resolution when they are in opposition and not in power.

If directly exposed to the same pressures from the electorate, the centre may also have caved in. The difference would have been that the center's decisions would have affected the whole country and not confined to a state as it is today.

Measures taken by the Centre to overcome limitations of electricity as a concurrent subject.
In 1991 the central government opened electricity generation to private and foreign investment. Despite strenuous efforts by officials, only Cogentrix and Enron were interested. The first was a small company with limited resources that was soon mired in environmental litigation. Neither central nor state governments were able to speed the process. Despite a favourable judgment from the Supreme Court after over three years, the developer withdrew.

Enron was more persistent and well-organized. It also knew how to operate in a government system that was very amenable to influence at the state level, and at the central level the government officials were very keen to get the first major private investment and hence willing to bend rules a little for the purpose. The result was a project that had such high capital costs that the resultant tariffs fell off the MERC's list for merit order despatch.

The central government was unable to develop policies and procedures to speed up foreign investment in a transparent fashion. The state government was more interested in special favors rather than new power generation capacity.

At this time the international funding institutions like the World Bank pressed for a strong independent regulatory system for determining tariffs and other matters. In the Indian federal system this meant that electricity regulatory commissions had to be established both at the Centre and in each state. While the Centre was reasonably clear on what was required, the states merely went along with central desires, but had no intention of permitting the SERC's from interfering in decisions that had political or financial implications for them.

Again a central government policy was poor in implementation because the legislation did not provide for any coordination between Centre and states, and there was no attempt at educating state governments on the need for independent regulation.

The Electricity Regulatory Commissions Act, 1998, provided for the creation of state electricity regulatory commissions. The only state that had prior legislation on the subject was Orissa and the Central Act did not apply to Orissa but did to all other states. Even for states who passed their own legislation, the Central Act would prevail in case of contradictions. The Electricity Act 2003 combined and revised all the 3 prior central legislations. It mandated open access, captive generation, recognized trading, markets and power exchanges, and by implication also the setting up of merchant power plants. It overcame the limitations on the sector's growth and profitability imposed by the veto power of the states on new generators and their ability to sell to others than the state government's distribution monopoly. Open access was the means to achieve this and so was a vital element in the Act.

The Accelerated Power Reform and Development Programme of the central government has provided substantial incentives to states that pursue the objectives of power reform as laid down by the central government in its energy policy. The ultra mega power projects programme has enabled an accelerated investment by private investors for whom the coal nationalization has been given the go by to allow them adequate captive coal mines. By allowing them to use surplus coal for merchant power plant purposes, the policy has enabled them to recoup their returns. These measures have largely neutralized the interferences of the state governments. However it demands that the ERCs exercise their full authority under the law in a fair and objective manner, which they have not always done in the past.

Do Centre and state governments and regulatory commissions have adequate powers to change the electricity situation?
Can we say that the Centre has inadequate powers to get the electricity system on a sound footing even though it is a concurrent subject under our federal Constitution?

The Centre has many times not exercised the powers available to it. At times it has permitted violation of the policies enshrined in its legislation by its own enterprises.

1. In 1998 transmission was opened to private investment subject to the approval of the Central Transmission Utility ("CTU") with a license to be issued by the CERC. The CTU (which would be a public sector undertaking to be designated by the central government) would operate the regional load dispatch centers and state transmission utilities would operate the state load dispatch centers. Until 2007 the Centre succumbed to the lobbying of the central government owned interstate transmission monopoly, Power Grid Corporation Ltd, to prevent private entry into transmission, except for TATA in the Tala Project from Bhutan, which was permitted as a joint venture with power Grid.
2. The Electricity Regulatory Commissions Act, 1998, enabled the creation of electricity regulatory commissions at the Centre and the States. However, each state passed its own legislation. In some, powers were not delegated under the rules. In all of them the regulators that were selected were almost always retired officers from government and government undertakings. In most cases they worked closely with the state government electricity departments.
3. Government of India had in 1994 allowed a return on equity to central government owned generating companies, of 12 %; raised in 1994 to 14 and in 1996 to 16%. These returns raised power costs for state governments but they had little say.
4. The primary functions of the commissions were in the case of the CERC, to regulate the tariffs of central public sector undertakings generating electricity, tariffs of power generated and supplied inter-state, inter-state tariffs for transmission services, regulation of inter-state transmission as such and issue of licenses to private investors in interstate transmission. The SERCs were to determine tariffs to be charged to customers, the tariffs and functioning of intrastate transmission including the operation of the SLDC.

The states have interfered to a larger extent. Thus:

1. States have no baseline data on the extent of losses in transmission and distribution in supplying different types of customers. This data would enable better pursuit of thefts and improving the collections.
2. State governments have frequently interfered to stay tariff increases.
3. Most recently, some state governments have directed their SERC not to allow open access so that the generator could not sell the electricity to a customer in another state.
4. In some cases the state government also directed a tariff that was less than would have been available if the electricity were sold to a customer in another state.

Nor have the electricity regulatory commissions exercised the powers available to them as fully as they could have, and also not followed the principles behind the Electricity Act 2003 which was to open markets, introduce competition, encourage trading and markets.

The CERC

1. Has until recently not vigorously gone after states that destabilized the Grid by overdrawing power.
2. Only in the last month has the CERC imposed heavy penalties on a state (Tamil Nadu) for destabilizing the Grid.
3. Has allowed some states to starve customers in the state to be short of electricity to take advantage of the high unscheduled interchange charge that could be had by coming to the rescue of the Grid. This was "gaming" since the state was under forecasting its demand and its supply on its day-ahead forecast. .
4. It has made no efforts to separate the state load despatch centers from the state transmission companies, to the detriment of trading, markets and transparency.
5. By imposing low trade margins and now suggesting that it could cap prices for interstate sales of power, it will prevent merchant power plants from developing.
6. At the outset the CERC devised a formula for calculating the surcharge levied for open access (to make up for part of the cross-subsidy costs) that was flexible enough to allow SERC's to impose very high charges, defeating the objective of achieving open access. This has now changed.

The SERC's also have not functioned in the manner they were expected to under the Act.

1. For example in their fear of raising tariffs to meet costs, they have taken legitimate expenditures in ARRs and placed them as regulatory assets to be reimbursed at a later date.
2. Some regulators have deferred recovery of fuel supply charges legitimately incurred and which should have been an immediate pass through in tariffs. SERCs have deferred to state government desire to not raise tariffs, at the cost of the viability of the distributing company.
3. The availability based tariffs were introduced in 2001 but SERCs made little effort to introduce it for intra-state operations which would have greatly improved quality.

Open Access

Over 95% of the electricity sector in 1999 was (not very different in 2009) owned and managed by central and state governments, with the states accounting for about two thirds. Distribution was almost entirely in the control of the state governments. The Centre monopolized interstate transmission and had created generation capacities that were allocated to the states. For the electricity supplied to states, tariffs were unilaterally decided by the Centre. The states decided tariffs to consumers.

State governments bore the growing losses of their electricity undertakings from government budgets, thus cutting funds for roads, health, education, etc. Losses were caused by industrial and household customers stealing electricity, with the collusion of electricity employees; cheap or free electricity supplies without limits to farmers and other special interests; gross inefficiencies in operations; poor quality and bad maintenance; lack of commercial approach among the engineers of the state electricity undertakings and the bureaucrats who were the top management; little trading in electricity from surplus to deficit states; and practically no private investments except in captive generation plants set up by industries to assure stable supplies for their businesses.

Investment in the sector was vital if it was to meet the needs and aspirations of a growing economy. Electricity investments must be of all types, public and private, for captive use, for trading in spot and futures markets, for long term contracts to distribution companies and to large consumers.

If supply constraints prevented tariff determination by forces of supply and demand in markets, tariffs must be determined rationally after allowing the enterprises to make adequate returns. Independent Regulatory Commissions were created at the centre and in each state for this purpose.

Subsidies were to be rationalized and become entirely a charge on the governments. Optimizing the use of available power required an integrated system of information, adequate transmission, trading between states and efficient operations. It was necessary to stimulate private investment in generation, for captive use, and for selling to whoever required it and was willing to pay the price for it. Trading in electricity would be at prices determined by market forces. It would improve availability even if supplies were short, by matching short-term surpluses in one part of India with deficits in another. Most demand would be under long-term contracts with tariffs determined by regulation.

Electricity cannot be stored and must be consumed as it is generated. This demands that there is an independent mechanism to keep minute to minute track of how much electricity is entering the system, from where, and who

has consumed it. This must be within estimates of supply made by each generator and of demand by users or distributors.

Careful and correct accounts of all these transactions and preventing overload of the system required an independent and neutral entity, not connected to any of the users of the system, to manage the load and dispatches in the system.

Transmission networks are a natural monopoly. Their cost of construction entails a high fixed cost, but once constructed it has a low and constant marginal cost. It therefore made little sense to have duplicate transmission networks over the same routes. Since electricity requires transmission facilities that have to be specially built to move the electricity from the generator to the distributor or user, it was necessary that the transmission network was easily available to anyone who wanted to use it and willing to pay a fair and non-discriminatory price for doing so. **This facility** of open access to the transmission network which in India has been a government monopoly of the Centre in interstate, and of states in intra state transmission, was a key element in the new Electricity Act 2003.

Without open access there could be little electricity trading, no optimization of use of the limited available electricity, no wider use of the surplus power from captive plants, and no new generation capacities built for supplying consumers willing to pay extra. Open access was at the heart of the new electricity system envisaged by the Electricity Act 2003.

In 2009, six years after the Act was passed, open access is yet to make much progress. Reluctance of electricity regulatory commissions, state governments and state electricity undertakings have not enabled it. Electricity Regulatory Commissions are almost entirely composed of retired government servants either from the central services or electricity undertakings. Their mindset is to protect the financial position of state electricity undertakings, not the consumer interest in availability of more electricity.State governments also want to protect their electricity undertakings that might lose profitable business and show larger deficits if open access was allowed and good paying customers migrated to other suppliers.

Regulators think similarly. The Act requires a surcharge for open access, to meet some part of the costs of cross-subsidizing special interests. State regulators determined this surcharge at such high levels that sending electricity on open access made it unaffordable. It is only recently that CERC has intervened to force more reasonable surcharges and to push open access, with little effect so far.

Transmission capacity has been constrained and even if open access was feasible on costs, capacity to move electricity was inadequate. In 1998, government amended the Act to allow private entry into transmission. But the central government monopoly undertaking in interstate transmission, Power Grid Corporation, was able to prevent private investment and protect its monopoly. Private investment in transmission was prevented for over six years and the continuing transmission capacity constraints also prevent open access from taking off.State governments like Karnataka have disallowed open access and taken dubious shelter under the Electricity Act 2003 for doing so. They have also prevented open access for selling electricity in another state.

The Load Despatch Centres were under the state electricity Boards or state owned transmission corporations. State governments have so far prevented their becoming independent bodies. They remain tied to the principal players in the electricity system. Without an independent load despatch centre in each state, open access is hampered, with the doubtful independence of the load despatch function.

The CERC has also restricted the scope for electricity trading and the wider use of open access, by putting a cap on trading margins, and more recently, proposing a cap on the price of traded electricity. This removed the incentive for private investment in generation capacity for trading purposes.

Little capacity specifically for trading purposes has been created. CERC thus restricted the need for open access.

Thus, until today, open access, a crucial element in the Electricity Act 2003 has been subverted by all governments and quasi-government authorities in the electricity sector. This lack of accountability and discipline in electricity is clearly a failure of Indian governance.

Unfortunately, neither the public nor the media have understood how the country's progress is held back by misconceived policies to protect state electricity monopolies.

Provisions in Indian Electricity Act 2003 that give special powers to government
The following sections in the Act give powers to the state governments to issue directions to the entities in the power system in the state.

Section 11. (1) The Appropriate Government may specify that a generating company shall, in extraordinary circumstances, operate and maintain any generating station in accordance with the directions of that Government.

Explanation. - For the purposes of this section, the expression “extraordinary circumstances” means circumstances arising out of threat to security of the State, public order or a natural calamity or such other circumstances arising in the public interest.

The Appropriate Commission may offset the adverse financial impact of the directions referred to in sub-section (1) on any generating company in such manner as it considers appropriate.

37. The Appropriate Government may issue directions to the Regional Load Despatch Centres or State Load Despatch Centres, as the case may be, to take such measures as may be necessary for maintaining smooth and stable transmission and supply of electricity to any region or State.

Section 62

1. The Appropriate Commission shall determine the tariff in accordance with provisions of this Act for:
    - supply of electricity by a generating company to a distribution licensee: Provided that the Appropriate Commission may, in case of shortage of supply of electricity, fix the minimum and maximum ceiling of tariff for sale or purchase of electricity in pursuance of an agreement, entered into between a generating company and a licensee or between licensees, for a period not exceeding one year to ensure reasonable prices of electricity
    - transmission of electricity;
    - wheeling of electricity;
    - retail sale of electricity.

    Provided that in case of distribution of electricity in the same area by two or more distribution licensees, the Appropriate Commission may, for promoting competition among distribution licensees, fix only maximum ceiling of tariff for retail sale of electricity.

2. The Appropriate Commission may require a licensee or a generating company to furnish separate details, as may be specified in respect of generation, transmission and distribution for determination of tariff.
3. The Appropriate Commission shall not, while determining the tariff under this Act, show undue preference to any consumer of electricity but may differentiate according to the consumer's load factor, power factor, voltage, total consumption of electricity during any specified period or the time at which the supply is required or the geographical position of any area, the nature of supply and the purpose for which the supply is required.
4. No tariff or part of any tariff may ordinarily be amended more frequently than once in any financial year, except in respect of any changes expressly permitted under the terms of any fuel surcharge formula as may be specified.
5. The Commission may require a licensee or a generating company to comply with such procedures as may be specified for calculating the expected revenues from the tariff and charges which he or it is permitted to recover.
6. If any licensee or a generating company recovers a price or charge exceeding the tariff determined under this section, the excess amount shall be recoverable by the person who has paid such price or charge along with interest equivalent to the bank rate without prejudice to any other liability incurred by the licensee...

Section 107.

1. In the discharge of its functions, the Central Commission shall be guided by such directions in matters of policy involving public interest as the Central Government may give to it in writing.
2. If any question arises as to whether any such direction relates to a matter of policy involving public interest, the decision of the Central Government thereon shall be final.

Section 108.

1. In the discharge of its functions, the State Commission shall be guided by such directions in matters of policy involving public interest as the State Government may give to it in writing.
2. If any question arises as to whether any such direction relates to a matter of policy involving public interest, the decision of the State Government thereon shall be final.

These sections make it clear that the “extraordinary circumstances” under Section 11 relate to matters of security, public order or natural calamity. Any other circumstance should not relate to these. The CERCs order

confirms this view. Similarly, any direction by the state government to RLDCs or SLDCs must be for “maintaining smooth and stable transmission and supply of electricity to any region or State.” It in fact makes it incumbent on the state to ensure smooth and stable transmission not merely intra but also inter state. However, Section 62 permits the state to impose caps for upto a year on purchase and sale of electricity in times of shortage. The Supreme Court sill need to take a view on the applicability of this Section when open access has to take place from one state to another.

Court rulings on Open Access

In recent rulings on open access on appeals against restrictions imposed by state governments, the CERC has ruled that denial of open access under Section 11 of the Electricity Act 2003 is not valid since a state level shortage of electricity does not connote an ‘emergency’. This matter is now before the Supreme Court. Section 62 does confer powers to place caps for a year on electricity prices for purchase or sale, in times of shortage. However the Court must take a view on the position.

Role of the Courts

The Courts have been extremely objective and neutral in their rulings on electricity since the coming into being of the ERCs. They upheld the ABT Order of CERC. They have asked for the opening of transmission to the private sector. They have come down heavily on arbitrary tariff decisions that adversely affect some entities. Recently they have said that “Rules framed by the government must be free of uncertainty and arbitrariness, and the two clauses in question fail the constitutional test…and directed CERC to consider the case afresh as though these two clauses had never been there”. Thus the Courts have invariably intervened to restore the powers of the regulators and ensured fair and objective decisions.

In conclusion

Electricity is a concurrent subject under our federal structure. We have a CERC and SERCs in each state, as well as an appellate authority. The High Courts and particularly the Supreme Court have been very supportive of regulatory orders and have set aside interferences by the state governments. The problem is that even the CERC, and particularly many of the SERCs have been subservient to the governments of the state they are in. Open access is the latest case in point. However in recent months the CERC has changed its stance and is actively pursuing SERCs to allow open access. A pending case before the Supreme Court will settle the issue. The judicial process with the Supreme Court will lay down the law in a manner that meets the legislative intent.