

Evaluating Recent Proposals to Reform the Power Sector in India

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ABSTRACT

Reforms designed to address core issues and their sequencing and timing would be critical to ensure the eventual success of the latest initiatives in the power sector. Lessons from the experience of earlier sectoral reform programmes and recommendations regarding the general architecture of central interventions, would need to be taken on board. Through a simple scenario building exercise, this paper concludes that the parlous financial position of the distribution utilities after lockdown requires that “reforms” follow “recovery”. The concurrent roll out of stringent reform measures on several fronts during a period of severe financial stress could seriously impair the prospects of a viable power sector in the near future. This, in turn, will not only hamper our planned promotion of renewables-based electricity but act as a brake on the entire process of economic recovery.

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INTRODUCTION

According to the Governor of the Reserve Bank of India, the introduction of lockdown to forestall a Covid 19 pandemic in March, 2020 has pushed an already troubled economy towards a period of negative growth. (PTI, Economic Times, 2020) The policy response, in an attempt to shore up confidence and assist in kickstarting the economy post the lockdown, was a series of reform initiatives in various sectors. This paper examines the prospects of the reform proposals relating to the power sector, given the problems that have long bedeviled this pivotal segment of the economy.

The paper comprises 6 parts. Part 1 sets out the various reform initiatives. Part 2 summarises the experience of earlier reform attempts. Part 3 provides a picture of the more recent developments following the ambitious UDAY (Ujjwala Discom Assurance Yojana)⁴ linked reforms of 2015 and seeks to explain the co-existence and implications of low per capita electricity consumption, stagnant demand growth and a rapid transition towards renewable power before and after Covid. Part 4 examines the feasibility of the new reform proposals. Part 5 presents a possible picture of the impact of the latest reform proposals on Discom finances in the post Covid scenario. Part 6 develops the architecture of more nuanced interventions.

PART 1

- 1.1** Two sets of initiatives were announced exactly a month apart. The first is the draft Electricity (Amendment) Bill, 2020 released by the Ministry of Power for public comments on the 17th of April 2020 (PRS, PRS India). The second relates to the reform conditions attached to liquidity injection in response to the economic difficulties imposed by the to the pandemic. The special package announced by Gol on 13th May, 2020, includes loans of Rs 90,000 crore for power distribution utilities (Discoms), to clear overdues payable to central power generating public sector undertakings, renewable power producers and Independent Power Producers (IPP). Availing the loans, which are to be directly disbursed to the creditors without passing through the state utilities, requires that Discoms and state governments meet certain conditions to improve the functioning of the distribution sector (CMD, 2020). In addition, a letter of 17th May, 2020 from the Finance Ministry, Government of India to all States, permits them to raise additional debt to meet the financial strain arising from the Covid crisis (Department of Expenditure, 2020). Half this additional allowance is being tied to four areas of reform. One of these areas is the power sector.
- 1.2** The proposed amendments to the Electricity Act seek to ensure more rational tariffs, channel subsidies through direct benefit transfers, enhance regulatory autonomy, open up more space for the private players and encourage clean energy. The changes are based on a certain understanding of the ailments bedeviling the power sector and their treatment. This sector is universally perceived as hamstrung by the politics of subsidy. The domestic and agriculture constituencies are often not charged the actual cost of power nor provided with metered supply. This enables the utilities to hide their inefficiencies. Consequently, the

4. Discom-Distribution Company

state governments often end up tolerating or encouraging a highly inefficient electricity distribution sector. This results in a perennial paucity of resources with state owned Discoms or Distribution Companies, the resource generating end of the electricity business. In turn, this creates pressure on state finances, affects the viability of the upstream segments of the power sector and finally acts as a brake on the entire economy.

1.3 The answer to this problem has been attempted in a variety of ways over the years, depending on the nature of the immediate crisis. On each occasion the prime objective has been to defuse the crisis at hand and protect the central sector entities while restoring a semblance of health to the financials of the sector as a whole. Three major reform moments in the past have focused, in chronological order, on giving a boost to power generation, clearing a massive accumulation of overdues of central generating companies and sorting out the excessive bank exposure to the bankrupt power distribution sector. The current phase of the periodic power sector crisis is one that also poses a threat to the massive expansion of renewable energy being targeted by the government since 2015.

1.4 The solution to the present crisis is being visualised through amendments in the law to create a financially viable power distribution sector that would also be able to meet its obligations towards renewable energy. The envisaged scenario runs on the following lines: statutory changes will bind the state governments and the tariff setting authorities and shut the door on existing practices that imperil the health of power distribution utilities. At the same time, enhanced scope for private sector entry will force the state owned Discoms to either cede space in the more remunerative segments of consumption or become more competitive. If despite all this, they fail to meet centrally mandated renewable energy obligations, they would face both legal action for default on contracts as well as stiff financial penalties.

1.5 The special loans of Rs 90,000 crore, to be extended through Power Finance Corporation (PFC) and the Rural Electrification Corporation (REC) to directly clear the amounts overdue to generators, require Discoms to increase smart metering of consumers and systems to ensure regular subsidy payments by state governments. For release of the second tranche, an action plan to close the gap between Average Cost of Supply (ACS) and Average Revenue Realized (ARR) would be required. The focus of the Finance Ministry letter is to offer a carrot to immediately incentivise certain steps that are seen as critical to improving the health of the Discoms. These measures are a targeted reduction in Aggregate Technical and Commercial (AT&C) losses, a targeted reduction in the gap between the average cost of supply (ACS) and the average revenue realised (ARR) and Direct Benefit Transfer (DBT) to farmers in lieu of free electricity; all to be started in the financial year 2020-21 (even before the amendments to the Electricity Act are likely to take effect).

1.6 The proposed amendments have seen comments flow in from a number of quarters (CUTS) (CPR). Suggestions include the need for a rethink of many of the amendments on the grounds that they centralise excessively and curtail the autonomy of the States. There has been a cautious welcome of the attempt to enforce rational tariffs and improve Discom finances. There has also been some concern that while the idea of promoting clean energy is laudable, it may need nuancing to cater to the situation in different States. Even as the proposed reforms have received attention, there have been parallel attempts to examine the impact of Covid on the electricity sector in the immediate context and in the medium term (Spencer, 2020). However, there has been no systematic attempt to view both these together: how implementation of the proposed amendments would play out for the electricity distribution sector in the likely post Covid economic activity and electricity consumption scenario.

1.7 The slowdown in the economy, greatly accelerated by Covid, has seen a steep reduction in electricity demand. The demand reduction has been proportionately greater in the higher revenue earning industry and commercial segments and therefore exacerbated the financial impact on the already suffering Discoms. The reduction in demand adds to costs since fixed charges of longer term contracts have to be met even as the addition of renewable energy obligations (RPOs) have already been enhancing this pressure to ask conventional power to back down. Though not fully studied or understood, there does appear to be a certain degree of correlation already between the extent of renewables penetration in most States and the financial health of its utilities. In all States (other than Maharashtra, Gujarat and Karnataka) with installed RE capacity in excess of 2000 MW, the per unit shortfall between the average cost of supply (ACS) and the average revenue realisation (ARR) is more than twice the national average {MNRE (Energy, 2019-20) and PFC (PFC, 2019)}.

This paper focuses, in the main, on filling the gap pointed out above, in the backdrop of past efforts at reform. Among the question sought to be addressed are: What has been the experience of past reform efforts? Why have they failed to achieve sustained change? What lessons do they hold for the instant proposals? How does the post Covid scenario complicate matters? What may have a better chance of making headway?

PART 2

2.1 An unpublished paper by the authors written as part of a programme at the National Academy of Administration, Mussoorie in 2011 (Sanan, 2011), had traced the history of power sector woes, policy response and outcomes since the 1970s. The position brought out in the paper can be summarised as follows:

1. Recognizing the fact that state power utilities have seldom been in a position to make substantial investment in enhancing generation capacity, central policy has constantly searched for ways to increase investment in generation. In the 1970s this was done by enabling central entry into the power generation sector and incorporating PSUs like the National Thermal Power Corporation (NTPC) and the National Hydroelectric Power Corporation (NHPC). After liberalisation in 1991, 100% private sector investment was permitted in the sector. Still later came policies to allow private sector control over coal blocks and linkages for power generation as well as bidding out of ultra-mega power projects to the private sector.
2. Recognizing that the political economy constrains States from charging economic tariffs while tolerating inefficiency, central policy has, post liberalisation, sought to use statutory changes to tackle these problems. Thus in the late 1990s, legal changes brought in electricity regulatory commissions, to rationalise tariffs and enforce efficiency. States have also been goaded into unbundling their power utilities to enhance accountability and enable private sector entry in various segments of the unbundled sector. Direct interface between generators and large consumers, bypassing the Discoms, has been made possible by the open access granted by the Electricity Act of 2003.

3. Recognizing the drag on distribution revenues imposed by huge losses, centrally sponsored schemes in the power sector have, since the beginning of the 21st century, attempted to create incentives to increase metered supply, strengthen transmission and distribution systems and in general, reduce losses. Various schemes have offered funding for capital investment and made the terms of financing more attractive for States achieving targets of loss reduction. Among the more prominent of such schemes have been the Accelerated Power Development and Reform Program (APDRP), the Restructured-APDRP, Integrated Power Development Scheme (IPDS) and (after 2011) Ujwal Discom Assurance Yojana (UDAY).
4. iv) Whenever the losses in distribution (the cash generating segment of the power sector) have reached a stage where they pose a serious threat to the financial health of the power sector, the financial sector (and in turn the whole economy), the Centre has focused on ways to overcome the immediate problem.
5. Before 2011, the most significant example of this was the formula devised by the MS Ahluwalia Committee (MSA) appointed in 2001 to sort out the problem of overdue of state utilities to central power generation PSUs. MSA became necessary because the amounts due by State utilities to centrally owned generation PSUs had reached alarming levels. The MSA formula saw a securitisation of around Rs 38,000 crore of Discom overdues, in 2003. Interest/surcharge of about Rs 8,300 crore was waived. The net outstanding to the central generating companies was converted into 15 year tax-free bonds at 8.5% per annum, with an initial moratorium of 5 years (Krishnamoorthy, Discom loan package: A boon for power sector?, 2020). MSA recommendations cleaned up State utility balance sheets and made them creditworthy. During 2004-09, the power sector led

from the forefront. Generation companies prospered as Discoms backed by readily available bank credit, purchased even high cost power to meet burgeoning demand. But it was all a bubble since the distribution segment still failed to make ends meet. For a few years no one posed the hard questions as everyone seemed to be prospering. The flags began to be raised only when bank overdues began building up.

2.2 In effect, the history of central power policy till 2011 saw ineffectual attempts at solving the basic problem of the sector. The distribution end never really overcame the issue of inadequate revenue realisation and significant functional inefficiencies. Statutory changes to bring in tariff regulation were easily circumvented by States through a promise of subsidies from the state budget (often delayed or not disbursed). At the same time, efficiency improvements sought by the regulatory commissions only resulted in the creation of 'regulatory assets' (essentially promises of improvement in performance forced on Discoms, that mostly remain unfulfilled!). National policy papered over the really difficult issues even as it overcame an immediate crisis with a short term fix like the MSA formula. The various performance oriented centrally sponsored schemes often saw loss reduction targets being achieved and funds being disbursed, without actually showing any sustained improvement in the sector's financial health. States always seemed to find a way to game scheme conditions and central agencies showed more interest in disbursing budgeted allocations than carefully scrutinizing the claims made by States.

2.3 Between 2011 and the present, the failure to solve the long term power sector crisis has presented a fresh set of problems. Post the implementation of the MSA formulation, the gap between ACS and ARR per unit, has never been bridged. The table below brings out the situation in the decade between 2009-10 to 2018-19.

TABLE 1

Year	ACS-ARR gap per unit after receipt of subsidy (in Rs)
2009-10	0.61
2010-11	0.67
2011-12	0.76 (0.74)
2012-13	0.83 (0.85)
2013-14	0.73 (0.77, 0.78)
2014-15	0.6 (0.58)
2015-16	0.65
2016-17	0.37
2017-18	0.3 (0.58)
2018-19	0.72*

Source: annual reports of the Power Finance Corporation (PFC)

Note: Figures in () are variations noted in different annual reports of the Power Finance Corporation. * 0.90 according to our calculations based on the same data.

Table 1 above shows that the trend of a steady rise in the gap between ACS and ARR per unit is broken only in the immediate aftermath of central initiatives discussed hereafter. As Discom losses mounted, their reliance on debt increased inordinately. Between 2007-08 and 2013-14, Discom borrowing jumped from Rs 1,58,003 crore to Rs 5,45,922 crore, a compound annual growth rate of 23%! (PRS, 2018). Given the worsening financial health of the Discoms, banks were faced with the alarming prospect of runaway NPAs.

2.4 During 2009-14, the problem became sufficiently severe to result in the appointment of the Chaturvedi Committee (BKC) in order to save the entire financial system from collapse. BKC recommendations saw the initiation of the Financial Restructuring Programme (FRP), a process of signing MoUs with states to deal with the accumulated debt and initiate reform steps. The FRP envisaged the issue of Discom bonds guaranteed by State governments. Till 2014, 7 States had issued these bonds (RBI, 2019). With the change of government at the Centre, the FRP morphed into the UDAY

(Ujjwala Discom Assurance Yojana) scheme. This scheme saw States assume 75% of Discom debts, 50% in 2015-16 and 25% in 2016-17. States issued bonds to take over the debt and transferred the proceeds to the Discoms as grant, loan or equity. The bonds were similar to the MSA formula in terms of moratorium and maturity but were non SLR bonds unlike the earlier issue. The balance 25% of debt was securitised as state-backed Discom bonds. Overall, between State bonds, Discom bonds (both FRP related and fresh) and One Time Settlement with banks, the balance sheets of the Discoms were wiped clean once again (Ministry of Power). Up to 50% of future utility losses till 2019-20 were also to be met by the state governments.

2.5 UDAY saved the banking system but could not inject viability into the business of distributing power. Tariff increases and reduced interest burdens momentarily cut down Discom losses for a couple of years, before they began climbing again by 2018-19 (Table 1 above). In recent years, there has been little money with Discoms to buy more power than they traditionally stand committed to. They are not generating sufficient revenues on their own and banks are chary of extending loans to them. It is a case of once bitten twice shy as far as the banks are concerned. The state governments too, have been falling behind in their commitment to pick up utility losses. Against the 50% of the losses they were expected to cover, they have fallen short in both 2018-19 and 2019-20. In 2018-19, they contributed Rs 1299 crore against the Rs 1602 crore due as 50% and in 2019-20, they have paid even less at Rs 1311 crore against the required amount of 2726 crore (RBI).

PART 3

3.1 Consequently, we have a situation where adequate power can be generated to meet potential demand but the Discoms are not in a financial position to intermediate this process. As a result, the country has started reporting a

power surplus, highlighted by the Minister for Power (Express). Table 2 below brings out the significant power shortage that existed in 2009-10 which has since then been dropping lower, year by year.

TABLE 2

The power supply position in the country during 2009-10 to 2020-21 :

Year	Energy				Peak			
	Requirement	Availability	Surplus (+)/ Deficits(-)		Peak Demand	Peak Met	Surplus(+) / Deficits(-)	
	(MU)	(MU)	(MU)	(%)	(MW)	(MW)	(MW)	(%)
2009-10	8,30,594	7,46,644	-83,950	-10.1	1,19,166	1,04,009	-15,157	-12.7
2010-11	8,61,591	7,88,355	-73,236	-8.5	1,22,287	1,10,256	-12,031	-9.8
2011-12	9,37,199	8,57,886	-79,313	-8.5	1,30,006	1,16,191	-13,815	-10.6
2012-13	9,95,557	9,08,652	-86,905	-8.7	1,35,453	1,23,294	-12,159	-9.0
2013-14	10,02,257	9,59,829	-42,428	-4.2	1,35,918	1,29,815	-6,103	-4.5
2014-15	10,68,923	10,30,785	-38,138	-3.6	1,48,166	1,41,160	-7,006	-4.7
2015-16	11,14,408	10,90,850	-23,558	-2.1	1,53,366	1,48,463	-4,903	-3.2
2016-17	11,42,929	11,35,334	-7,595	-0.7	1,59,542	1,56,934	-2,608	-1.6
2017-18	12,13,326	12,04,697	-8,629	-0.7	1,64,066	1,60,752	-3,314	-2.0
2018-19	12,74,595	12,67,526	-7,070	-0.6	1,77,022	1,75,528	-1,494	-0.8
2019-20	12,90,247	12,83,690	-6,557	-0.5	1,83,804	1,82,533	-1,271	-0.7
2020-21*	85,608	85,164	-445	-0.5	1,33,315	1,32,779	-536	-0.4

* Up to April 2020 (Provisional), Source : CEA

While generating capacity does show an increase in these years, it is Discoms' inability to fund power purchase that really closes the gap! Surplus power in a country with per capita electricity consumption at less than a third of the global average as the latest data according to the International Energy Agency (pertaining to 2017 or 2018 for different countries) exhibited in Table 3 below brings out, continues to be an obvious anomaly.

TABLE 3

Country/Region	Per capita electricity consumption kwhr
USA	12900
Russia	6800
China	4600
EU	6100
Japan	7800
UK	4900
Brazil	2500
South Africa	4000
India	1000 (1100 according to latest data)
World average	3200

International Energy Agency (IEA)

3.2 Given the low level of per capita electricity consumption in India and the positive relationship between electricity consumption and the growth of the economy, surplus power in the system should have been a cause for immense concern. Instead of looking at ways to secure a sustainable resolution of the problem at the distribution end, central policy focussed yet again on increasing generation capacity in another, completely new direction, renewables. The Jawaharlal Nehru National Solar Mission (launched in 2010 under the National Action Plan for Climate Change) saw its targets revised from 20,000 MW to 100,000 MW in 2022 in the budget announcements of 2015 (Ministry of Environment).

3.3 Post-Paris, India substantially stepped up its RE programme, projecting an expansion from the then extant 20 GW to a level of 175 GW by 2022. In capacity terms this would mean reaching close to 36% of the total, with renewables' contribution to actual generation growing from 7-8% to about 20-22%. The current level of achievement is a substantial step up at 87 GW but capacity addition has really slowed down in the last couple of years (Somit, 2020). The renewables take off has been stymied by a number of factors related both to cost and the nature of renewable power. The actual costs of RE at the retail level could be quite high. A CEA study (Central Electricity Authority, 2017) pegs integration costs at Rs 1.11 per unit of renewable power. While the CEA study goes on to conclude that even with this enhancement in the LCOE (Levelised Cost of Energy), RE will be cheaper than coal, the fact is that LCOE has long been regarded as an incomplete measure of the actual cost of renewable power (Joskow, 2011). There are other costs as well, as various studies reveal. The actual costs include standby power costs- designed to offset RE intermittency, additional transmission costs and costs of stranded assets. A recent study shows that these

costs have together added up to 17% to retail power tariffs between 2010 and 2017 in States implementing renewable power obligations (RPOs) in the US (Ishan Nath).

3.4 Stranding of coal assets due to climate change interventions is a live problem globally. Stranding happens when an asset ceases to generate revenues while remaining on the books of the utility. Kefford and others (Kefford, 2018) peg the extent of worldwide stranding at \$541 bn through to 2060 (mainly in the US, China, EU and India), if the 2° C target is to be met. Coal capacity commissioned after 2010 is expected to operate for only 50% of the operational period of the projects. There is agreement that the extent of stranded coal assets is expected to be quite substantial in India, although the problem is yet to receive in depth attention. The impact has been estimated at \$169 bn and 7.5% of GDP in one case (Kefford). This works out to about Rs 12 lakh cr over the next 40 years or 30000 cr per year with immediate effect. Based on current data, Thomas (TERI) and NREL POSOCO (Greening the Grid) estimate the capacity already likely to be stranded between 54-65 GW. At INR 7 cr/MW, and assuming that 50% costs have already been recovered, it could mean annual recoveries in excess of 20000 cr over the next decade. The two estimates are quite close.

3.5 Faced with the prospect of paying more for power being made available at a time when demand is low and having to bear the burden imposed by the existing two-part tariff that allows fixed cost recovery based on plant availability for thermal power, Discoms have increasingly become loath to honour the RE contracts that have been foisted on them. As Table 4 shows, overdues to RE have increased by almost 9 times in less than three years even as overdues to other generating companies increased a little over 5 times.

TABLE 4
(power sector overdues Rs cr) (Prap)*

Year	Discom	Genco	RE	Total
July 2017	9867	22615	1108.44	33590.44
July 2018	15000	39442	2236.88	56678.88
July 2019	19465	76327	7366.61	122803.61
May 2020 (latest)	13002	113581	9728.5	136311.5

(*Overdues figures vary. The PFC (PFC) puts the total payables for power at the Discom level at Rs 227018 cr on March 31 2019, up from Rs 172046 cr in March, 2018.)

3.6 It is in this scenario, where the chronic financial weakness of Discoms had already slowed growth of grid based power consumption, that the Covid pandemic has unleashed a further assault. As Table 5 below shows, power

consumption has fallen dramatically since the March end lockdown (and the drop has impacted most the surplus revenue generating segments of commerce and industry).

TABLE 5
Deceleration in power demand due to Lockdown in 2020

Peak MW	2019	2020	%
March	163922	157480	-16.39
April	172093	129200	-24.92
May	176381	153089	-13.2
June	175610	162796	-7.29

POSOCO energy MU

POSOCO energy MU	2019	2020	%
March	110326	100202	-9.17
April	111974	85067	-24
May	121556	102930	-15.3
June	118939	106499	-10.4

Source: CEA Annual Reports and POSOCO data

3.7 The central government has responded with offers of loans through REC and the PFC as mentioned above. However, as Table 4 shows, the amount of Rs 90,000 crore will not be sufficient to cover even the accumulated overdues in the sector. The bigger issue will now be the debt accumulation by the Discoms. {According to some sources, by end 2020-21, it is expected to rise to Rs 4.5 lakh crore, 30% more than that at the end of the last financial year. The interest burden of this debt will only exacerbate Discom financial difficulties. Even today only one in five Discoms is able to service debt from their own cash flows including budgeted subsidies. ({Money Life 2020, 2020}). Our calculations however, show a grimmer picture. Including the fresh 90000cr debt infusion during FY 21, the debt stock, which was already at 478452 cr on March 31, 2019 as shown in the PFC report, is likely to grow to Rs 668458 cr by end FY 21 and then further to 73173 cr by end FY 22 by normal accretion}.

3.8 It is not just the immediate drop in consumption and its pattern which is a major cause for concern. There is a longer term impact of the Covid related slowdown

on economic growth and electricity off take. Various estimates of the possible fall in power demand post Covid lockdown in India have become available. The TERI forecast mentioned earlier raises concerns about a possible long-term, irreversible downturn in power demand. The study suggests a fresh look at the national demand scenarios based on data from the 19th EPS prepared by the CEA for the National Electricity Plan, 2017 and puts the contraction in power demand in the range 7-17%, depending on the movement of India's GDP (TERI 2020). Another exercise, by India Equity Research, also throws up assessments that are fairly close to the TERI forecast (India Equity Research, 2020). According to this report, the demand contraction in the first quarter of FY 21 could be of the order of 18% and the demand contraction for the whole year would be 8% largely due to the sharp projected fall (up to 25%) in commercial and industrial demand and associated revenue realisation; the ACS-ARR gap is projected to rise, from 52p/unit to 95/ unit during FY 21 and Discom under recoveries are estimated to go up to Rs 1,12,700 crore during FY 21. Our calculations in Part 5 present a more dismal picture.

PART 4

4.1 Are the proposals contained in the draft amendments to the Electricity Act and the conditions attached to the letters offering fresh loans and additions to the borrowing limits set for States, sufficiently different from what has been tried before? Will they really address the problems that have always afflicted the sector? Can the reform proposals enable the distribution sector to meet the severe stress in the offing or will they worsen the situation?

4.2 The proposed amendments are based on an understanding that has two complementary strands. One is the belief that left to themselves the States are unlikely to ever make the changes that will bring about a financially viable distribution sector. This thought is not new and formed the backdrop to the 1998 legislation for regulatory commissions to set remunerative tariffs and later the introduction of the provision for open access for bulk consumers, that was the hallmark of the Electricity Act of 2003.

The second strand is that these proposed amendments will successfully plug all the loopholes used by States to evade the intent behind earlier statutory changes. Thus States will no longer have complete autonomy to choose their regulators. The regulators will be bound by central policy on tariff setting so that on the one hand cross subsidy between categories of consumers and on the other hand surcharges and wheeling charges for open access, will be contained within rational limits and eventually phased out. For States wishing to subsidise consumers beyond the tariff set by the regulator, the subsidy will have to be passed on directly to the consumer (DBT- Direct Benefit Transfer) and not become a promise to pay the Discom. At the same time a new centrally constituted Electricity Contracts Enforcement Authority (ECEA) will be able to discipline Discoms failing to adhere to contract

conditions (this will primarily benefit power producers of all hues and possibly transmission entities). Discoms not able to perform under these conditions will be forced to reduce the ambit of their responsibility. The amendments cater for this eventuality by providing for sub licensees (in all likelihood from the private sector) to take over this function. The objective of safeguarding, in particular, the interests of those investing in setting up renewable energy generation projects, will be specifically addressed. Renewables Purchase Obligations (RPO), to be decided under central directions, will become mandatory for the Discoms, and failure to adhere will result in stiff financial penalties under the Act and enforcement of contracts through the new ECEA.

4.3 On the face of it, the amendments seem a comprehensive attempt to ensure that the distribution segment of the power sector can finally be brought on track to attain financial viability. Some States may cavil at the loss of autonomy imposed on them but in this view, they have no one to blame but themselves. They have been given sufficient opportunity to bring in the reform themselves. It is their failure which has led to this curtailment of their freedom. On closer examination though, the results may not be as cut and dried as they might appear to those who just wish to rein in recalcitrant States. It is far from certain that these amendments can be brought to pass. But even if faithfully implemented, these provisions may result in such an adverse fallout, as to make a sustainable outcome retreat beyond a foreseeable future.

4.4 The scenario will possibly adhere to the following script, in almost every State in the country, if the amendments are carried as proposed:

- Proportionately higher tariffs for all categories of consumers.
- Possible adverse tariff impacts brought about by the need to meet obligations of higher offtake of renewable energy, absent a major transformation in the burden sharing mechanism, particularly in the non-RE states.
- Significantly higher tariffs for previously subsidised categories of consumers (mainly small domestic and agriculture) as a result of reduction in cross subsidy.
- States find it difficult to make prompt direct transfer of subsidy amounts to the accounts of consumers in these categories. (State finances have already been under stress as a result of the pre Covid deceleration which has seen a fall in their revenue receipts. This stress will be exacerbated considerably in the post Covid slowdown). This exerts a downward pressure in electricity offtake by these consumers (assuming the political repercussions are managed safely!).
- Discoms are forced to honour contracts for meeting fixed charges in relation to long term contracts. The impact is most acute on their sister gencos, given their positions in the proposed national merit order for power dispatch. They are unable to gain from cheaper power available on the spot market or even within the state. This exerts further pressure on their strained finances and forces them to seek even higher tariffs or subsidies.
- Use of open access by bulk consumers in commerce and industry is facilitated by lower surcharge and wheeling charges. They increasingly enter into direct purchase contracts with power generators to avoid the higher tariff they would have to pay if they continue to buy power from the Discoms.
- The loss of bulk high revenue consumers compounds the financial problems of Discoms. Their costs continue to be sticky and have to be

recovered from a reducing amount of power being supplied to a more extensively spread out, lower value pool of consumers.

4.5 There could be an optimistic view that at worst all this will mean that state owned distribution entities will be pruned in size and learn to live with competition or wither away. In that latter case, private sector entities will take over and perform more efficiently. The State governments will have to learn to make transparent allocations for subsidies to agriculture and remote rural customers. At most there will be a temporary blip in power offtake in the economy. This will be a painful interlude that must be borne with fortitude in the interest of longer term gain.

4.6 There is every reason to be critical of such positive assumptions even in normal times. The increase in Discom power costs and the decrease in their ability to supply electricity would certainly have an adverse impact on the economy as a whole and the impact on those at the margins would only be more so. In a situation in which pre-existing demand side problems have been greatly accentuated by the pandemic and power demand has been further depressed by Covid, the increase in the cost of electricity and further contraction in its demand could be the proverbial straw that breaks the camel's back. Instead of helping in a recovery, these measures could end up taking the economy in the opposite direction by throwing the whole power sector into total disarray. A report from early 2019 (Economic Times, 2019), mentioned that investments worth Rs 1.8 lakh crore in 34 generating companies were already on way to the NCLT. Power NPAs form a significant part of the total NPAs of 10.35 lakh crore in the system (Paul, 2018). Any problems in the power sector will, therefore, have serious repercussions on the entire economy.



PART 5

5.1 In this section, we have constructed a possible post Covid scenario of Discom finances (post reform) by forecasting figures for electricity sold (by consumer segment) with possible tariffs, projection of debt and overall possible / probable deficit. Our calculations are based on data from the PFC report entitled Performance Report of State Power Utilities 2020 (PFC) which incorporates data up to 2018-19 .

5.2 The process for developing the post-Covid scenario can be summarised as follows,;

1. We take the published 2018-19 figures as the base and extrapolate to 2019-20, using the CEA's demand growth rate for 2019-20 (0.26%) as the sales growth rate. The growth had flattened out before Covid,
2. Using 2019-20 as the base, we generate various scenarios for 2020-21 and 2021-22,
3. While doing so, we do not change the basic cost and revenue parameters, like manpower

costs, power purchase unit costs, tariff subsidy paid and per unit revenue realisations,

4. We change the consumption figures across various consumer categories based on the possible (8%) fall in demand post-Covid during 2020-21 and build in a partial (5%) recovery in the following year,
5. Based on the above, we generate the per unit revenue gap for the distribution sector for 2020-21 and 2021-22,
6. Thereafter, we successively build in the impact of the reform measures, including the impact of the additional loan under the post Covid package, cross-subsidy rationalisation and the continued recovery of fixed charges by the central utilities.

We have deliberately taken very conservative values for the probable demand fall. Most existing estimates are much higher (TERI). We have also taken equally conservative figures for the demand recovery.

Table 6A presents the relevant data for 2018-19. Our subsequent projections are based on the 2018-19 base.

TABLE 6A

2018-19	Sales	MU	Rev/unit		Revenue	Rev %
Domestic	28.01%	268198	4.38	Domestic	117471	19.66%
Comml	9.07%	86846	9.17	Comml	79638	13.33%
Agri	22.44%	214865	0.76	Agri	16330	2.73%
Industry	29.00%	277678	7.76	Industry	215478	36.07%
Others	11.48%	109922	5.29	Others	58149	9.73%

Input MU	1187830
Sales MU	957509
SOP	487065
Subsidy	98653
Other Rev cr	51595
Total Rev cr	637404
Cost of Power	562026
Interest	47632
Other costs	113443
Total Costs	723101
Gap Rs cr	-85803
Gap/unit sold Rs	-77**

TABLE 6B

	2019-20				2020-21				2021-22			
	MU	% MU	Revenue	% Revenue	MU	% MU	Revenue	% Revenue	MU	% MU	Revenue	
Domestic	268896	28.01%	117776	19.67%	268896	30.45%	117776	21.75%\$\$	268896	29.0%	117776	
Commercial	87072	9.07%	79845	13.34%	73014	8.27%	66954	12.36%	81097	8.74%	49469	
Agriculture	215424	22.44%	16372	2.73%	215424	24.39%	16372	3.02%	215424	23.2%	54718	
Industry	278400	29.00%	216038	36.08%	233451	26.43%	181158	33.45%	259297	28.0%	15817	
Others, traction, , utilities etc	110208	11.48%	58300	9.74%	92414	10.46%	48887	9.03%	102646	11.1%	54300	
Subsidy Booked cr			110391		110391		110391				110391	
MU Sold	959999		598722		883199		541538		927359		544825	
Input MU	1190918				1095645				1150427			
SOP cr			488331				431147				434434	
Subsidy Received cr			98653				98653				98653	
Other Rev cr			51595				51595				51595	
Total Rev cr			638579				581395				584682	
Cost of Power cr			563487				518408				544329	
Interest cr			52374				66548				73173	
Other costs cr			113443				113443				113443	
FC Recovery cr			0				13688				13688	
Total Costs cr			729304				712087				744632	
Revenue Gap cr			-90725				-130691				-159951	
Gap / unit sold with cross subsidy rationalisation, debt and fixed cost recovery			-0.95				1.48				-1.72	
Gap -no subsidy rationalisation							-1.48				-1.41	
No rationalisation and no addl debt							-1.38				-1.30	
No rationalisation, no addl debt, no Fixed cost recovery							-1.22				-1.15	

5.3 In Table 6A above, the 2018-19 data reflects the actual position. In the year 2018-19, a gap of Rs 85803 cr translates into a ACS-ARR deficit per unit sold of Re 0.896. Here, we were unable to reconcile with the gap of 0.77 shown in annexure 1.3 (a) of the PFC report. Our estimate, also based on the basic data-total revenue Rs 637404 cr, total cost-Rs 723101 cr and units sold 957509 MU, comes to 0.895.

In 2019-20, the ACS-ARR gap goes up to Rs 0.95 per unit sold. Sales grow at 0.26%. On the revenue side, tariffs do not change nor does the consumer base. The subsidy received remains constant as do all other revenue grants, wheeling charges etc. . The expense side assumptions are, power purchase at rates at the same level as in 2018-19, an increase in interest costs to reflect the normal accretion in stock and no inflation related increases in any other costs or revenues and grants. The net result is only a slight widening of the deficit gap.

The consumer mix does not change till 2020-21, when, we build in a rather conservative overall sales drop of 8%, or 76800 MU. This fall is shared pro-rata between the subsidising segments, industry, commercial and others while sales to the subsidised segments are held constant. Total sales and the mix are set to improve in 2021-22 when a partial recovery sets in. The former rising by 5% over 2020-21. In MU terms this comes to 44160. This is divided between the subsidising segments pro rata, meaning industry, commercial and other sales increase. Sale volumes in agriculture and domestic remain constant. There is overall improvement, but the numbers still fall short of the 2019-20 position.

5.4 The financial position changes dramatically for the worse in 2020-21. With the consumption mix as mentioned in the preceding paragraph and assuming a constant tariff, the revenues drop quite sharply, from 638579 cr to 581395 cr. Expenses go up to reflect the cost of servicing the additional borrowing (including the Rs 90,000 cr infusion already discussed). Total cost of power purchase falls with the fall in demand while other costs and revenue items are held constant. The revenue gap widens substantially to 130691 cr and the per unit deficit rises to Rs 1.48. In the year 2021-22, while the consumption pattern is assumed to change to reflect a better economic performance as mentioned above, rationalisation of cross subsidy comes into effect. Cross subsidy rationalisation looks at keeping tariffs within a 20% band on either side of the average and agriculture tariffs are to be kept at 50% of the average. This results in a significant drop in the tariffs for these revenue earning segments which cannot be compensated by the increase in domestic and agricultural tariff. On the other hand, interest costs go up significantly and a higher level of fixed charges come into play due to the fixed charge obligations, for power not scheduled. The result is a deficit of the order of Rs 159951 cr overall and Rs 1.72 per unit sold.

In making expense projections in Table 6B, we have specifically addressed debt servicing requirements. The level of debt being assumed needs to factor in the additional loan that the utilities will have to take on to meet their burgeoning deficits, including the Covid-related dispensations by the Finance Ministry and the PFC/REC. The projections of debt stock of Discoms and associated interest burden, is shown in table 7 below.

TABLE 7
Debt position of Discoms

Year	Debt stock end FY	Interest
2018-19	478452 (Actual)	47632 (Actual)
2019-20	526084	52374
2020-21	668458	66548
2021-22	735006	73173

Note: Interest Rate held constant at 9.95% as derived from the PFC report for 2018-19 and interest computed on year end debt stock. For the year 2020-21, debt includes the Rs 90,000 crore infusion by PFC/REC.

5.5 The alarming figures for 2020-21 are not farfetched even if they are significantly more than the deficit of Rs 1,12,700 cr for this year mentioned earlier as a projection by the India Equity Research. There are several reasons for the difference. The latter uses energy demand as the basis for revenue calculations. We have preferred to work on the basis of energy sold, since revenues are realized on electricity sold after accounting for system losses. We have used the PFC data on utility performance all through, except for the demand growth rate between 2018-19 and 2019-20, which is sourced from the CEA. There is little likelihood of any sort of tariff increase during 2020-21. In fact, there are reports of public agitations against the payment of current power bills. (CESC power tariff, Mysuru, 2020) (Bhattacharya, 2020), before and after Covid.

5.6 The real change comes through load diversion away from commercial and industry during the lockdown induced overall drop in the quantum of energy sold. Changes in the consumption box have the most significant impact on Discom finances. In fact, the projections above may in fact be optimistic given that the overall drop in consumption is being kept at 8% in 20-21. Spread across the industry, commercial and “other’s” segments, the 8% overall drop works out to a 16% fall across each category compared to the 25% fall forecast by the India Equity Research. Additional liabilities on account of fixed charge obligations for power not drawn owed to the generating and the transmission companies are another area we may have not fully factored into our calculations. The Ministry of Power has recognized the need to ameliorate this impact, in directing the deferment of fixed cost recoveries and a 20-25% rebate by the central generating and transmission companies (Ref). It is reported that the total amount of relief is likely to be of the order of Rs 3000 cr for the 40 days of total lockdown. We have only assumed a one time burden that can be spread over two years in our projections.

5.7 Enforcement of RPOs, without fundamental changes in the pattern of burden sharing, across states rich and poor in RE and between the centre and the states, can further worsen the situation. Even now, RE-rich states, (except Gujarat, Maharashtra and Karnataka) show per unit gaps well above the national average. With higher RE generation, there appears to be an increasing need for a different tariff determination formula that does not exclusively reward additional generation, but also incentivises flexibility and ramping. Without these changes, the Discoms will face a mounting problem of fixed cost recovery on account of backing down of thermal plants. Studies show that even without the demand drop due to Covid, thermal plants, particularly those in the state sector, would operate at 40-50% loads for most of the year. (CEA, 2019). The Greening the Grid study puts the figure at 43%.

5.8 We can summarise as follows:

The demand contraction and the shift away from remunerative consumer categories will significantly worsen the profitability gap observed in 2019-20, The 90000 cr fresh loan to the Discoms aimed at clearing the overdues of the CPSUs and the RE producers will add to the interest costs and further drag down the gap. Fixed cost recovery, which has merely been deferred, will become due and impact the profitability gap even more. Cross subsidy rationalisation would also raise the gap. With several opposing factors, the stipulated reduction in the ACS-ARR gap would be very difficult to achieve in practice.

Realistically, events are more likely to unfold on the following lines:

1. The power sector reforms sought by the Finance Ministry will be shown as implemented and meet the same fate as the many previous attempts in similar vein. The reduction in losses as well as reduction

in the revenue gap are after all only to be demonstrated through self-declaration by States. A scheme for DBT to farmers is to be formulated and piloted in one district. It should be easy enough to show that this has been started. Quite likely though, that going by past experience in such matters, there will be limited questioning of the manner and extent of implementation!⁵

2. The proposed amendments to the Electricity Act, are likely to be vehemently opposed by most States. They may end up being watered down to permit States a greater say in issues like cross subsidy, wheeling charges and surcharge, direct benefit transfer, RPOs and appointment of regulators. In that case business as usual may continue. Even assuming that the amendments do go through, States will continue to find ways to thwart their intent. Discoms are state government owned entities and their tariff petitions to the regulator can be directed to adhere to appropriate parameters. In the final analysis, State governments can decide the tariffs and charges that will apply in the State and even end up failing to honour contracts and guarantees extended by them. Precedents point to few occasions when state guarantees are actually enforced (Krishnamoorthy, Discom loan package: A boon for power sector?, n.d.).
3. The proposed power sector reforms are unlikely to see adoption or implementation. The essential problems of the distribution sector will remain unresolved. Power offtake in the economy will, in all likelihood, worsen post Covid. These reforms are not the answer but in the absence of some action, the situation will only fester and prove a drag on the economy instead of being an engine of growth. Expansion of capacity through renewable sources is unlikely to meet the targets set and the viability of operating even the existing capacity is open to question.

PART 6

- 6.1 So is there a way out? The discussion in the preceding sections has shown that statute change as the route to reform of the power sector has neither worked in the past nor is it likely to make a difference now. In the immediate post Covid situation, there is no way out of ploughing in more money to keep the distribution sector afloat.
- 6.2 In the immediate future, the sequence and timing of the reforms could be vital. We could do well to heed Lord Keynes in seeking “recovery” before “reforms”. (Edwards, 2018). In an open letter to President Roosevelt in 1933 after the Depression, Lord Keynes had emphasised that reforms should follow recovery and hasty reforms could be injurious. Edwards cites an impressive volume of similar work on reforms world-wide that have emphasised the political economy aspects of reform and the importance of proper sequencing and timing.
- 6.3 As the projections in Part 5 show, post-Covid utility finances will be precarious and need more government support. Given the strain on State finances, there is little likelihood of that happening. Higher and legally mandated renewables obligations, cross subsidy rationalisation and enhanced debt service commitments, will then only have to be funded through higher consumer tariffs. As we have pointed out earlier, the ground situation is not propitious for tariff increases of any kind. We would be looking at higher defaults and NPAs as utilities struggle to find the cash to provide essential services. Hence recovery has to be the immediate objective.

For a longer term solution, it may be time to really pay heed to the idea of cooperative federalism and try and create a consensus

5. Numerous studies on CSSs, CAG reports

through dialogue with the states on further action. The focus should be to place distribution reform at the core of an agenda for securing a growth oriented, efficient power sector. It should catalyse a serious and regular consultation between the Centre and the States on the issues related to improving distribution as the key driver for the sector. For this, it is imperative that an appropriate consultation mechanism is put in place.

Additional debt will clear the immediate overhang of outstanding dues of certain categories of generators. Plans to improve finances of Discoms will be formulated and announced. However, given the actual financial conditions, there is unlikely to be any real change on the ground unless the Centre shifts gears to a new approach. There is a need to engage in a fundamental rethink on the design of schemes to transfer funds to the States for power sector improvement. This is an opportune moment to do so, when there is already some debate on performance incentives for states initiated by the Terms of Reference given to the Fifteenth Finance Commission (Ministry, n.d.).

6.4 In rethinking the design of conditional transfers to States, it is useful to recapitulate some lessons in the literature on the subject (Sanan D. S., 2003). In general, any scheme of transfers should be seen as fair and transparent, conform to the requirement of a hard budget constraint and minimise creation of any moral hazard. Conditional or specific purpose grants should not attempt to tackle a large number of areas. “A proliferation of conditional and performance linked special purpose grants is likely to generate confusion and pro forma fulfilment of the needed criteria (Ehtisham Ahmad, 1997) “Allocation criteria should be transparent and not amenable to manipulation. Dilution of these requirements in formulation or implementation can render them ineffectual in securing performance or reduce them to vehicles for dispensing patronage. Formula

driven transfers are most likely to meet the requirements of transparency and a hard budget constraint. However, where objectives require that appropriate proposals for funding should be received in a competitive mould, it is essential that both criteria as well as systems of evaluating proposals meet the conditions of transparency and fairness. The design of conditional grants should keep in view capacity to monitor and manage at the central level. Objectives should be clearly spelt out, be capable of being monitored and non-performance should invite the possibility of sanctions. In the absence of these features in the design, even conditional transfers based on transparent formula can become rights, which sub national units feel entitled to regardless of attached conditions rendering issues of performance secondary and linking drawals to expenditure alone. Ideally specific purpose grants should contain sunset clauses to create effective incentives for performance. In their absence, there is a clear incentive to under perform in order to obtain a larger amount over time.” (Sanan D. S., 2003)

6.5 A CAG Report in 1999 on the implementation of a few Centrally Sponsored Schemes (CSSs) brought out the extent to which India’s schemes of conditional transfer are the antithesis of these principles! It pointed out an emphasis on reviewing expenditure at the central level, the overstatement of both financial and physical achievement by states and the lack of accountability for outcomes at both the central and state levels⁶. Over time, concern about inability to secure performance, appears to be driving even greater attention to more complex process oriented guidelines. There is an overriding sense of the objectives being a central responsibility that prevents securing state ownership and concern about qualitative achievement. On the whole, the design parameters of all these schemes would appear to generate the kind of perverse incentives that a principal agent relationship is prone to in the absence of an ability to change agents or

6. Planning Commission (2001) pp.2

deliver a credible message of penalty for poor performance” (Sanan D. S., 2003). Not much has changed in the last two decades.

6.6 Two recent studies commissioned by the Fifteenth Finance Commission to inform on possible ways to approach its ToRs, complement the findings and recommendations encapsulated above. A report by the Vidhi Centre for Legal Policy (Arghya Sengupta, legal basis for conditional transfers, 2018) recommends greater collaboration between the Centre and States in designing conditional transfer schemes; a focus on performance incentives instead of an input linkage; credible measurement of performance; and appropriate institutional arrangements involving both the Centre and States to address issues relating to monitoring and evaluation, non compliance with transfer conditions and resolution of disputes that may arise.

The second study by NCAER (NCAER, 2019) focused on ‘what to measure’ and ‘how to measure’ in relation to performance incentives from the Centre to the States. The conclusions were that simple indicators with reliable data bases work best for credible performance measurement. E.g. a fiscal performance indicator that measures own tax revenue collection effort by a state over a period of time (to iron out or moderate any one time elements) works well. The choice must be “outcome related indicators and not output / input / process indicators.” (NCAER, 2019)

6.7 Credible Data Bases, of proposed indicators, need to be,

1. Objective (data source is impartial and not generated by implementing agencies / departments of the state governments or by agencies under the control of or susceptible to influence of those likely to benefit from the data reported),
2. Be accepted as objective and reliable (the agency generating / collecting the data has achieved a reputation for trustworthiness),

3. Universal (the data base has the breadth to both cover all the units being reported upon and to limit the margin of error in making comparisons) and
4. Consistent (the data base exists over a reasonable time period with similar parameters in order to moderate the possibility of one time events in particular time periods) (NCAER, 2019).

Incentives need to

1. Be of sufficient size to be noticed and be worth striving for as also for them to be left untied,
2. Based on data related to performance in past years rather than prospective performance,
3. Reward a combination of both achievement in absolute terms as well as a recent percentage change, in order to balance long term efforts of achieving states and possible short term efforts of laggard states.
4. Be able to factor in the impact of a state's efforts at the national level and must not be completely disproportionate to size (NCAER, 2019).

6.8 In this backdrop of design principles for conditional transfers and the Indian context outlined above, what kind of scheme will be appropriate for an improved power sector? In the first place, the focus needs to be clear. The economy's need is greater electricity consumption to power growth. A sustained increase in electricity consumption in the country, must therefore, become the core performance towards which the States should be expected to contribute. This is what should be recognized for disbursing incentives. It ought to be the one simple indicator that should be measured. Loss reduction which can occur by reducing expensive power purchase or by cutting off power to areas that are more difficult and expensive to service, is not an

objective that needs to be encouraged. With this single indicator, the States should be left free to take any action they choose to improve offtake of power (Sanan 2011). They may defray subsidies if they so wish but in the final analysis they will need to ensure a viable distribution segment that is able to procure more power from power producers.

The problem currently lies in finding credible data bases that will yield objective, reliable, consistent and universal information to measure increase in electricity consumption in all States on a regular basis. The two most extensive data bases on electricity related indicators currently available in India are those maintained by the CEA and the PFC. The data used is as reported by the Discoms themselves and therefore, its objectivity, reliability and consistency can also be called into question. The PFC data is not universal. It is only available at utility level for 22 States. It is also far more susceptible to gaming since achievement reported to PFC is linked to incentives under central programmes relating to loss reduction (NCAER, 2019 pp 26).

It may be necessary then to develop a new data base on this indicator which will check all the criteria for credibility outlined earlier. In our unpublished paper referred to earlier, we have suggested the criterion of an externally audited figure of increase in metered energy sale for which revenue has actually been collected, as the annual figure to credibly measure increase in consumption. Supply of energy that is not metered or supplied free would be excluded. Demand side subsidy for metered supply would automatically be included but supply side subsidy transfers from state governments would stand excluded. The requirement for metered supply alone being considered as the indicator, arises from the difficulty that non metered supply poses for accurate measurement and the possibility of including figures that do not actually represent increased energy off take but merely a juggling of T&D losses. The condition that only units that yield actual revenue will be included in this criterion

is to ensure that the distribution business focuses on its core business of selling energy and sees receipts from the sale of energy as their main source of revenue. This automatically creates an incentive for reducing both AT&C losses and supply side subsidies for free supply (Sanan 2011, pp 22). The incentive under this component needs to factor in both high achievement in percentage terms as well as an increase in absolute number of units in order to cater to both consistent higher performance as well as improvement by laggard states.

6.9 What will it take to adopt the fresh approach to distribution reform being advocated in this paper? Primarily, it requires a complete overhaul of long established norms of behaviour and understanding at the level of both the Centre and the States. The relationship between the Centre and States has always been seen as hierarchical in a principal : agent mode. Discretion with the principal, to dispense patronage, as well as mistrust and lack of confidence in the capacity of the agent, are all pervasive. Breaking this mould, requires viewing States as autonomous entities, operating with a sense responsibility to their constituents. States need to be involved as partners in the national endeavour and not to be dictated to, as agents. Consultative fora can deliver trust when mutually agreed rules are adhered to. At the same time, incentives, based on credible progress, transparently monitored by all units together, can become a mechanism for rewarding performance. This creates a competitive environment that favours actual achievement and not gaming the system. The Centre needs to take the initiative to bring about this change in relationship with the States. It needs to show that cooperation is not about the Centre versus the States but rather in building a consensus around a shared national objective. At the same time, it needs to demonstrate a resolve to focus on long term, sustainable change.

**This is a working paper.
Comments are most welcome.**

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