

Electricity for All

Ten Ideas towards

Turning Rhetoric into Reality

प्रयास

असौर्य, ऊर्जा, शिक्षण आणि पाळकत्व
या विषयातील विशेष प्रयत्न

Discussion Paper by Prayas Energy Group

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About Prayas

Prayas (Initiatives in Health, Energy, Learning and Parenthood) is a non-governmental, non-profit organisation based in Pune, India. Members of Prayas are professionals working to protect and promote the public interest in general, and interests of the disadvantaged sections of the society, in particular.

The Prayas Energy Group works on theoretical, conceptual and policy issues in the energy and electricity sectors. Activities cover research and intervention in policy and regulatory areas, as well as training, awareness, and support to civil society groups. The past work of the Prayas Energy Group includes an analysis of the power purchase agreement between the Dabhol Power Company and the Maharashtra State Electricity Board, an analysis of the Sardar Sarovar Project, the development of a least-cost, integrated resource plan (IRP) for the state of Maharashtra, an analysis of

agricultural power consumption and subsidy, a critique of the activities of multilateral development banks in the energy sector in India, and the organisation of numerous capability building workshops. Since the last few years, the group has focused mainly on issues relating to power sector reforms, renewable energy, energy efficiency and climate change. Its work in the area of power sector reforms includes a study of the regulatory aspects of the Orissa model of power sector reforms, several policy and regulatory interventions at the Central and State levels, a survey based report on Electricity Regulatory Commissions, a report on the privatisation of distribution in Delhi, and a study of the Bhiwandi distribution franchisee model.

All publications, presentations and reports by the Prayas Energy Group are available at the Prayas website :

(www.prayas-pune.org/peg)

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Electricity for All : Ten Ideas towards Turning Rhetoric into Reality

Summary

Six decades after independence, and two decades since the arrival of 'reforms', the poor continue to miss the electricity bus. India has the dubious distinction of being home to the largest number of people without electricity anywhere in the world. Half of households in India do not have access to electricity, which constitute a third of the world's population without electricity. Though electricity generation has increased by 60% in the last decade, it has only led to about a 10% increase in access for households.

There is an overwhelming feeling, and rightly so, in civil society and independent researchers, that the basic needs of the poor have been neglected, while there is disproportionate interest in issues like captive power plants, open access, commercial viability and markets, which immediately benefit large consumers. It is imperative that we cut through the rhetoric claiming to provide electricity for all, and bring the actual situation to light. The crucial shift from the rhetoric to the reality of providing electricity for all demands that the current business as usual approach must make way for certain urgent, innovative steps. Some of these steps require major policy or structural changes and therefore

would take time, while others could be implemented in the existing framework.

This paper outlines ten such action ideas which do not require major legal or institutional changes. These ideas are techno-financially feasible, can be adopted within the existing framework, and implemented immediately. In fact, some of these ideas have already been adopted in some states, and need to be replicated by more states.

Briefly, the ten action ideas are:

1. 100 X 100 Connection Drives : Mountain to go to Mohammed

Bold proactive initiatives like 100 x 100 drives by DISCOMs to give connections to all within 100 meters of the line are essential to meet the target of universal access. This needs a change in the mindset, with the DISCOM approaching consumers and offering connections.

2. Rationalising tariff structure: A just and fair tariff for the poor

Special attention has to be paid to the BPL households and those who use very low amounts of electricity to ensure that their electricity bills are fair and not unreasonably high. This includes improving BPL tariff implementation,

and having all LT consumers under a single category with a graded tariff.

3. Transparency and equity in load shedding: Share the shortage

It is essential that there is transparency, fairness and predictability in load shedding, so that there is fairness in sharing the shortage. This can be achieved through public consultative processes initiated by Regulatory Commissions to design and monitor load shedding, as has been done in some states.

4. A UMPP for the east, a UMPP for the west, how about a UMPP for the poor?

Backward areas suffer from a vicious downward spiral: load shedding leads to low development, which further increases the load shedding. The only way to break out of this deadlock is to take bold steps like reserving an Ultra Mega Power Project (UMPP) to get rid of load shedding in the most backward districts, thus helping the poor get out of poverty.

5. Third party audits of DISCOM metering and billing: Set your house in order first

For most legally connected consumers, especially the poor, maximum problems with the DISCOMs are in the area of metering and billing. DISCOMs are

responsible for this function, and unless there is a third party audit by a credible agency, the situation cannot improve.

6. Make grievance redressal mechanisms effective: Reach out to people

Explicit quantification of quality of supply and service performance benchmarks, and setting up consumer grievance forums, are two pro-consumer initiatives. But very few small consumers and groups know about them. Used only by a few, they have not become effective pressure points for the DISCOMs to improve quality of supply and service. There is an urgent need to strengthen the grievance redressal process, and increase its attention towards poor consumers.

7. For whom the RGGVY tolls?

Organise public reviews

The RGGVY is India's biggest rural electrification programme, which is being implemented in 500 odd districts across the country. The programme is planned, financed and monitored largely by the Central Government, with limited roles for state level institutions. It is high time that SERCs organise a public review of the RGGVY, so that state actors and people can participate and thus provide midcourse corrections.

8. Listen to the poor: Bring their voice into regulatory forums

The regulatory processes have indeed helped to increase the participation of consumers in regulatory forums, including public hearings. But the representation of the poor in these forums has remained dismally low. Increasing their representation requires pro-active efforts by the SERCs.

9. Power power everywhere, where is the light for homes near the power house?

It is a sad commentary on our development paradigm, that houses even in the vicinity of big power plants do not have electricity. Providing sustainable electricity access to them should be an integral part of the project design.

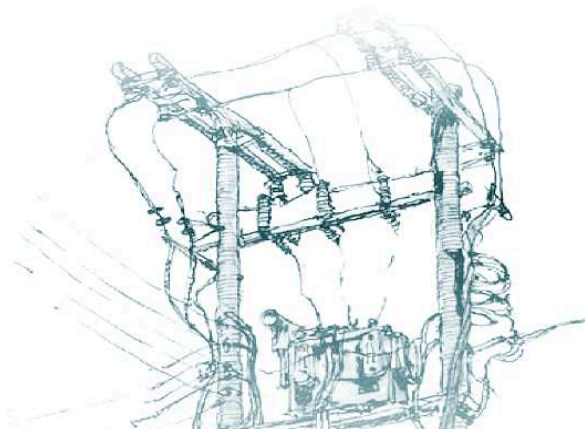
10. How can one fix what one does not know: Data collection and analysis for small consumers

There is a severe inadequacy in data collection and analysis of data for all aspects of small consumers: their actual numbers, consumption patterns, and hours of supply. It is imperative that existing reporting agencies like the CEA increase their coverage to regularly report these aspects of small consumers. This is essential to track the progress of the electricity service to the poor and solve their problems.

All these ideas are aimed towards providing sustained, affordable, adequate and quality electricity access to the poor. These ideas could be debated and modified to select and prioritise among them, based on the local context, and quickly taken up for implementation. While it is not claimed that these ideas will solve all problems of the poor, there is confidence that these ideas will definitely help the poor.

SERCs, DISCOMs, and State & Central power ministries must take the initiative to implement these ideas. The challenge is to work on these ideas, rather than being pre-occupied with market promotion aspects, or staying forever locked up in debates on structural or ownership issues. If it is felt that the ideas suggested are not appropriate, then there is a need to come up with suggestions to supplement or replace some or all of them, so as to result in a faster improvement of electricity service delivery to the poor. Needless to say, the efforts must not stop at implementing a few of these ideas. We must not lose sight of the more fundamental, long term issues like incentive mechanisms to serve the poor, accountability of DISCOMs and regulators, an equitable development paradigm, etc. These action ideas should be seen as the essential first step and a window of opportunity to protect the poor, till long-term measures are rolled out and proven effective

* * *



Electricity for All: Ten Ideas towards Turning Rhetoric into Reality

Discussion Paper by Prayas Energy Group

1. A Few Hard Truths Between Rhetoric and Reality¹

After six decades of independence, which saw significant growth in the economy and energy infrastructure, India faces the highest level of energy poverty anywhere in the world. The poorest households spend nearly 15% of their total income (50% more than the average Indian expenditure) and a high amount of human resources on energy, which is usually limited to meeting only the absolutely essential basic needs such as cooking, lighting and transport. Even today, nearly 60% of the population relies on traditional biomass for cooking and heating.

The scenario regarding modern energy sources like electricity is no different. India has the dubious distinction of being home to the largest number of people without electricity in the world. Half of households in India do not have access to electricity,

which constitute a third of the world's population without electricity. Though electricity generation has increased by 60% in the last decade, it has only led to about a 10% increase in access for households. The trends are similar for previous decades as well. It is clear that the poor have hardly benefited from the growth in supply. Recent expressions of political intent, policies and actual financial allocations are yet to deliver benefits to the poor.

This paper presents an overview of the situation, and suggests ten concrete action ideas which could result in a quick improvement of the situation, to be implemented by regulators, distribution companies and the Government. Section 2 outlines how the poor are missing the electricity bus, section 3 elaborates the framework for the action ideas, and section 4 places these ideas on the table.

¹ Data from RGGVY website (household electrification), CEA (for yearly generation data), NSSO Round 63 -2006-7 (household expenses on energy) and IEA (paper on rural electrification, listed number 3 in Data Sources at the end of this paper)

2. The Poor are Missing the Electricity Bus

This discussion paper focuses primarily on the issues in the area of grid electricity supply to the poor². Most of the poor live in small villages or towns, and are domestic consumers or small commercial/industry consumers. The growth and grandeur in the electricity sector seem to bypass the poor, who are missing the electricity bus.

The correlation between consumption of electricity and improvement in the Human Development Index (HDI), especially at low levels of HDI, is well known³. This cause and effect relationship is two-way. Electricity consumption could lead to a higher HDI, or a rise in the HDI could lead to higher electricity consumption.



However, even a small quantity of electricity supply can make a marked difference in the quality of life of the poor. Electricity helps to meet their social needs (lighting, drinking water supply, etc.), avoid excessive cash expenditure for kerosene, increase productive working hours of the day, and promote small economic activities (shops, cottage industries, etc.).

² In these times of impending climate and fuel crisis, it is indeed necessary to ask the question whether the conventional fuel based centralised systems would address the electricity needs of the poor in a sustainable fashion. While energy efficiency and small stand-alone systems based on renewable sources are important, our submission is that conventional grid based electricity has a crucial role to play in reducing poverty.

³ For example, see: Global Energy Futures and Human Development: A Framework for Analysis, Alan D. Pasternak, US Department of Energy, 2000

In the past two decades, there have been many changes in the policy and institutional aspects of the Indian electricity sector. These 'reforms' were expected to improve the health of the sector, and thereby benefit all through better financial health of the companies and increased energy supply, thus leading to economic growth. This growth, in turn, was expected to lead to overall development through a trickle down effect.

However, after two decades of these 'reforms', there has been little progress in providing quality electricity access to the poor or villages⁴. In fact, the initial spate of electricity sector reforms paid no direct attention to the needs of the poor. But from mid-2000 onwards, following political slogans such as 'inclusive growth', 'focus on the aam aadmi' and 'reforms with a human face', some legal changes, new policies and programmes focused on the needs of the poor have been adopted. These programmes have also been given substantial financial allocations, and have a potential to meet the needs of affordable electricity provisions for the poor. A

commitment in the national Common Minimum Programme (2004) to electrify all households by 2009, provisions in national policies (National Electricity Policy, National Rural Electrification Policy), a programme for Decentralised Distributed Generation, and the flagship national programme for rural electrification, the Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY), as well as state programmes like Orissa's Biju Grama Jyoti Yojana, are some examples. Some provisions in the regulatory process such as public hearings, Standards of Performance (SoP) regulations and Grievance Forums also provide opportunities for improving services to the poor.

Despite all these policies and programmes, the condition of electricity service to the poor is still pathetic, which points to a big gap between pro-poor rhetoric and reality. If one were to go by the way recent initiatives are implemented, quality affordable electricity for the poor may remain a distant dream. Increasingly, and rightly so, there is an overwhelming feeling in civil society and independent researchers

4 Studies have indicated a slow-down of rural electrification and household electrification of the poor in many states after reforms (Kanungo Committee Report, Government of Orissa, 2001; Impact of power sector reform on the poor: Case studies of South and South East Asia, A.R. Sihag, Neha Misra, Vivek Sharma, Energy for Sustainable Development, Volume VIII No.4, December 2004). Recent field studies report 2-6 hours or at best 12 hours of poor quality electricity supply to electrified villages (Shifting Of Goal Posts: Rural Electrification in India - a Progress Report, Vasudha Foundation, 2010 and Still waiting – a Report on Energy Injustice, Greenpeace, 2009).

that the basic needs of the poor have been neglected, while there is disproportionate interest in captive power plants, open access, commercial viability and markets, which immediately benefit large consumers. For example, the Planning Commission and many other Government and regulatory institutions are constantly exploring ways to promote the electricity market through 'open access', 'power exchanges' or 'merchant power', while there is no matching interest or resource allocation to study issues of the poor. It is therefore imperative that we cut through the rhetoric claiming to provide electricity for all, and bring the actual situation to light. Borrowing from the old fairy tale, it is high time we break the spell of those shouting 'Oh how magnificent our emperor looks in his new clothes!' and ask aloud, where indeed are the emperor's clothes?

The crucial shift from the rhetoric to the reality of providing electricity for all demands that the current business as usual approach must make way for certain urgent, innovative steps much needed to break new ground. Some of these steps require major policy or structural changes and therefore would take time, while others could be implemented in the existing framework. Steps which would require major policy, legal or structural changes include:

- a) Introducing financial incentives/disincentives to distribution companies for providing quality service to the poor and rural areas.
- b) Exploring alternates to small rural franchisees, which are projected as the one solution to improve quality of supply, but are unlikely to be sustainable.
- c) Having a clear policy mandate that rural electrification requires capital and revenue subsidies for quite some time.
- d) Simultaneously implementing complimentary development measures to improve the economic status of the poor, to enable them to continue to pay for electricity use.

These steps are important and need to be taken in due course. But while they are discussed and debated, there are many concrete action ideas which could be immediately implemented in the current framework, and which could thus provide significant benefits to the poor. The objective of this paper is to elaborate on such possible measures to improve service delivery to the poor within the existing framework, while the structural, ownership and policy changes are debated and implemented.

3. A Framework for Action Ideas

How should action ideas that could be implemented immediately in the existing policy and institutional structure be identified and elaborated upon? The focus of this discussion paper is small rural consumers - residential as well as small business. With nearly half of rural households in the country not legally electrified, the first problem in electricity service is getting a legal electricity connection. However, this by itself is not enough. Retaining the legal connection is a

challenge due to many reasons – high tariff, errors in billing, or harassment by the staff. Rural households also have to contend with long hours of load shedding and poor quality of service, making the electricity connection a burden rather than a benefit at times, due to the 'minimum electricity bill'. The majority of consumers (and potential new consumers) are poor⁵, therefore these problems affect them even more.

As shown in Figure 1, the poor encounter several hurdles while attempting to obtain

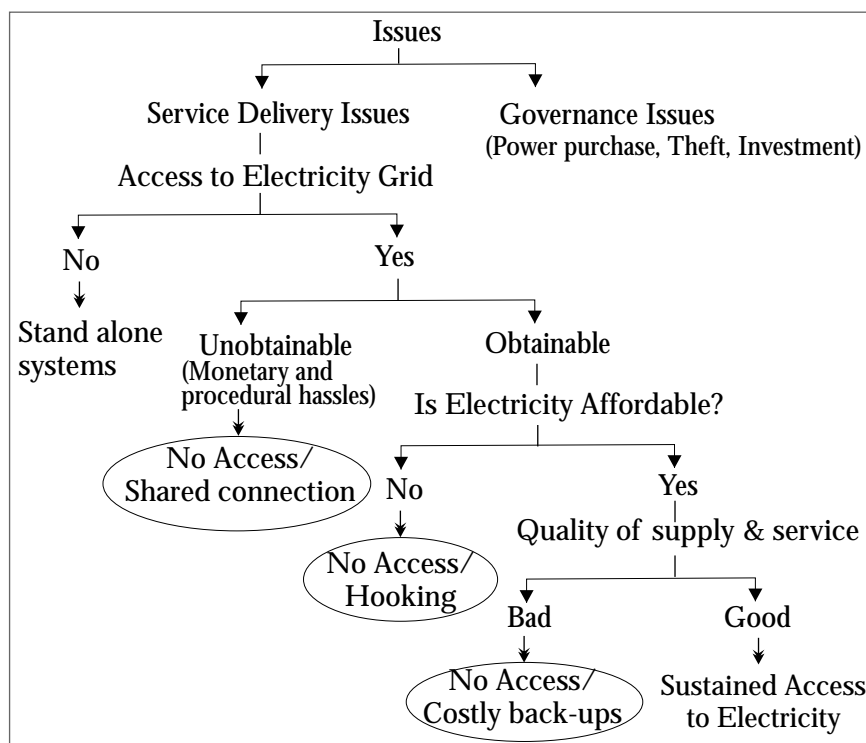


Figure 1:
Sustained, affordable,
adequate and good
quality electricity
access – a bumpy long
journey

⁵ As per a rough analysis by Prayas, only 25-30% of the households in the country pay a monthly electricity bill of Rs. 150/- or more.

sustained, affordable, adequate and good quality electricity access. Leaving aside governance issues relating to the financial health of the sector (like bad power purchase contracts, inappropriate investment, theft, etc.) which impact the poor more, they face many service delivery roadblocks on this journey.

Where grid connectivity is possible, either the high cost of getting a connection or procedural problems often lead to shared connections or no connections at all. The Rajiv Gandhi Grameen Vidyutikaran Yojna (RGGVY), the biggest rural electrification drive with an explicit household focus, was expected to address this issue, especially for the very poor households. But it is now clear that there are many implementation problems in the RGGVY (slow progress, power supply shortage etc., as mentioned in section 4.7). Even after getting a legal connection, if the tariff is high, consumers cannot pay on time, leading to disconnection, followed sometimes by hooking. The poor quality of supply (low voltage, frequent interruptions), which is extremely common in rural areas, results in equipment damage, or forces the consumer to buy costly backups. Poor quality of service (wrong billing, harassment, etc.)

leads to disconnection and/or hooking. Rural franchisees, which are expected to improve services by taking over the management of rural distribution, have not taken off. Decentralised Distributed Generation initiatives, which were expected to address the power supply shortages in rural areas, are making very slow progress.

This is why the poor are missing the electricity bus. It is true that the issues of electricity service to the poor are many and complex. As mentioned before, addressing some of them require policy or structural changes. While these are debated, the situation can be improved if all sector actors take initiatives to implement some action ideas, which could be adopted in the existing policy and institutional structure without needing very high financial resources. These action ideas address the issues of access, affordability, and the quality of supply and service to the poor. They are to be taken up by policy makers, planners, distribution companies, regulators and civil society organisations. They can be quickly implemented, and can make a significant difference to lives of the poor. The next section outlines ten such action ideas and their motivation.

* * *

4. Action Ideas Towards Electricity For All



This section outlines ten action ideas that do not require major legal or institutional changes. The ideas which follow are technologically feasible, can be adopted within the existing framework, and taken up immediately. In fact, some of these ideas have already been adopted in some states, and need to be replicated by more states. We realise that there are some overlaps across these ideas. We do not claim that these ideas alone would solve all the electricity problems of the poor. But discussing these ideas would definitely help to prioritise the needs of the poor, and implementing them would be the important first step towards providing electricity access to all. These ideas could be debated to detail, select and prioritise among them, based on the local context, and quickly taken up for implementation. In order to have a significant impact, a simultaneous thrust on many action ideas is required. For example, a connection and regularisation drive will not result in sustained legal connections unless parallel efforts are made to

rationalise tariff and improve quality of supply and service.

These ideas primarily aim to address the service delivery issues of the poor, though some governance aspects are also discussed while elaborating them. The sequence of presentation of the ideas broadly follows the service delivery issues indicated in Figure 1. For example, the first idea of 100 x 100 drives addresses the issue of access, and the second idea of rationalising tariff structure addresses affordability. The next four ideas (transparency in load shedding, making poor districts load shedding free, audit of metering, and improving the grievance redressal process) address issues of quality of supply and service. The remaining four ideas (a public review of the RGGVY, improving participation of the poor in the regulatory process, providing electricity to homes near power houses, and improving databases of the poor) are aimed towards improving the existing programmes to provide better services to the poor.



4.1 100 x 100 Connection Drives: Mountain to go to Mohammed

It seems that the current approach to increase legal access will not succeed in meeting the target of universal access in near future. Bold proactive initiatives like 100 x 100 connection drives by DISCOMs to give connections to all within 100 meters of the line are needed. This needs a change in the mindset, with the DISCOM (mountain) approaching consumers (Mohammed) and offering connections. Universal legal access is a win – win – win option, with the DISCOM increasing revenue & rationalising infrastructure, the consumer getting safer, stable & cheaper electricity, and society reaping the benefits of universal access.

Background

The first and major obstacle for a large number of the poor is getting a legal electricity connection. The stated national objective in 2005 was to provide 'Electricity to All' in five years. Under the RGGVY, rural distribution infrastructure is being extended and strengthened to provide electricity connections to all. Free connections are provided to poor (Below Poverty Line – BPL) households, while others are expected to approach the Distribution Company (DISCOM) to take obtain connections.

In today's world, it is highly unlikely that households do not want electricity connections in places where electric lines have reached. But the progress of providing

legal household connections has been slow, which is said to be due to difficulties in payment (connection charges and/or bribes) and procedural problems. In case of programmes to provide free connections to BPL households, there are problems with BPL lists (delays in providing lists, mistakes, exclusion of many who are genuinely poor, etc.). Even with a BPL card, many find the required process to get a legal connection tedious due to complex procedures and low levels of enthusiasm of DISCOMs or RGGVY implementing agencies. Families who are not classified as BPL have the additional problem of high connection charges, especially in some states. Another hurdle is procedural and

documentation requirements. Getting a new, legal connection often requires filling up different forms (application, wiring report, etc.) and submitting many documents (identity proof, house ownership/occupation certificate, etc.). For a country with low levels of literacy and significant levels of corruption, even at the level of the lineman and local officials, only those who are rich or persistent would be able to get legal connections in a reasonable time.

It is also seen that in the case of many consumers who obtain a connection, the electricity gets disconnected due to a variety of reasons, and such consumers are then considered ineligible for reconnection/new legal connection. For example, a rapid field survey by Prayas in a few tribal taluks of Thane district showed that in the case of nearly half the households with legal connections, electricity was permanently disconnected due to non-payment, which in turn was mostly due to problems in

metering and billing. As a result, only one-fourth of the households had legal connections⁶. Thus, the reasons for permanent disconnection could be inability to pay the bill (for those who are just above BPL status), corruption at the local DISCOM level, or high bills due to wrong metering/billing.

All these reasons often lead to the spread of illegal connections. It is difficult to get correct estimates, but illegal connections could be of the order of 20-30%⁷. There are also many gaps in the consumer data available with DISCOMs, in terms of actual load, number of legal consumers, etc⁸. No amount of policing will be able to permanently remove all these illegal connections. High number of illegal connections leads to revenue losses for the DISCOM, and poor quality of supply to the consumer. This also makes it impossible to make a proper assessment of the load, leading to overloaded transformers, and further resulting in low voltages and

6 Awareness and Action for Better Electricity Service: An Agenda for the Community, Prayas Energy Group, 2008

7 The occasional regularisation drives end up regularising a very large number of consumers. For example, DISCOMs in AP reported (Tariff Order 2003-4) regularisation of 20 lakh consumers in 2002, and in Karnataka, the number reported in a one month regularisation drive in 2002 was 9 lakhs (Tariff Order 2003). These are very large numbers, considering the consumer base of about 100 –150 lakhs in each of these states. Reports from other places like Delhi and Bhivandi also point to a similar picture.

8 For example, the Ahmednagar rural division of Maharashtra reports 47,143 residential consumers and 59,499 agriculture consumers! Nearly equal numbers!! (Source: MSEDCL, www.mahadiscom.in)

frequent supply failures. An illegal connection is also not a stable option for consumers, considering the safety risks and bribes they must keep paying to retain the connection.

Since universal access is in any case the target, there is a strong case for changing the mindset about providing legal connections. The present approach of providing connections to certain sections (BPL, tribals, the displaced, etc.), and expecting others to apply for connections, will not do. With this approach, the progress of electrification will be so slow that it may not even catch up with the population growth rate! World over, universal access has been achieved by concerted drives by service providers supported by Governments⁹.

Action ideas

There is a need to change the mindset and approach, with the DISCOM (Mountain) approaching consumers (Mohammed), if the target to electrify all is to be achieved in reality. Distribution companies should be mandated to ensure 100% electrification, rather than passively wait for so called

Above Poverty Line households (or those who are unable to get BPL cards) to approach them with a form, payment and all the required documentation for seeking a connection. There has to be a pro-active connection drive to provide legal connections to all. Required support to the DISCOM should be provided by the State. SERCs should facilitate transparent monitoring of the progress, and thus hold the DISCOMs accountable.

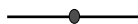
One such initiative could be in the form of a 100 x 100 drive, that is, a connection drive to provide electricity to all by giving connections to 100% households within 100 meters of an electricity line. A 100 x 100 drive should be taken up by all DISCOMs. DISCOMs should provide connections and meters at the doorstep of each household, without demanding any documents or payment. The cost of providing such connections could be recovered by the DISCOM through the Annual Revenue Requirements or through State support¹⁰. Moreover, in the medium term, the investment would be easily recovered from increased sales and reduced Aggregate

9 This includes China (99% household access in 2009), Brazil (98% in 2009) and South Africa (75% in 2009).

10 For a state like Maharashtra with 90% village electrification and about 55 lakh un-electrified rural households, the cost of providing connections may be around Rs. 1200 crores (using RGGVY norm of Rs. 2200/connection), a relatively small amount compared to the capital expenditure plans to the tune of Rs. 40,000 crores for transmission and distribution alone in the next 3 years.

Technical & Commercial (AT&C) losses, leading to higher revenue. Local section/divisional engineers should be made responsible and accountable for achieving this target of a 100 x 100 drive. Local engineers achieving significant results (household electrification of say above 95%) under this drive could be provided with handsome incentives and career opportunities.

Along with this, there should be regularisation drives to make illegal connections legal, with a one time amnesty to waive reasonable arrears, and to allow so called permanently disconnected consumers (with limited arrears and who are not booked for theft) to get legal connections.



4.2 Rationalising tariff structure: A just and fair tariff for the poor



Special attention must be paid to BPL households and those who use very low amounts of electricity, to ensure that their electricity bills are fair and not unreasonably high. This includes improving BPL tariff implementation, and having all LT consumers under a single category with a graded tariff.

Background

Once a legal connection is obtained, the next challenge for the poor is to be able to pay the bill on time so that they stay connected. A little more attention to households who are BPL or marginally better would ensure this. The National Electricity Policy and the National Tariff

Policy suggest a low tariff slab to the very poor, who consume very small amounts of electricity¹¹. Many states do have a separate category for small, residential consumers (based on low consumption, typically 30 units/month) with a tariff equal to 30-50% of the cost of supply. But there are many

¹¹ A minimum level of support may be required to make the electricity affordable for consumers of very poor category. Consumers below poverty line who consume below a specified level, say 30 units per month, may receive special support in terms of tariff, which are cross-subsidised. - National Electricity Policy (5.5.2), National Tariff Policy (8.3.1)

issues in the implementation of this measure, which result in the poor having to pay incorrect and unaffordable bills.

First of all, the number of such 'electrically poor' consumers appears much less than the official figures of BPL households. For example, Maharashtra has 60 lakh BPL households, but only 2.4 lakh consumers with a BPL tariff¹². Even if one discounts households without electricity, this means that many of the poor are not able to avail of the benefit of the BPL electricity tariff. The second issue is the limit on consumption. A household with 2 bulbs and a fan would typically consume 30 units/month, which is quite low. There is an increasing penetration of TVs and other electrical equipment, bringing the monthly consumption closer to 50 units/month, especially in urban areas. The third issue is related to category fixing based on monthly consumption. Occasional high consumption occurs during some months due to a family function or festival, or due to errors in metering/billing. If such high consumption occurs for one month, the category of the connection itself is changed, and it is very difficult to get back to the BPL

category. Maharashtra (2008) and Chhattisgarh (2009) have introduced a limit on annual consumption (360 units/year) for a consumer to remain in the BPL category, an improvement over the current monthly limit norm. The fourth issue is related to metering practices. For small consumers, often an average consumption figure is entered in the records, and the meter reading is taken only a few times a year. Meter or wiring problems result in a sudden high meter reading and consequently high bill, leading to non-payment and disconnection. Regular meter readings, introduction of photo-metering (Maharashtra 2008), introduction of load limiters, etc. would reduce this problem. The National Tariff Policy has suggested the use of load limiters for small consumers¹³. The fifth issue is related to the fixed charges and minimum charges to be paid by BPL consumers. Fixed charges include customer charges (like the customer charge of Rs. 15/month in AP) and the minimum charge, which is usually based on the connected load. If the connected load is not assessed properly, the minimum charge becomes high¹⁴. Because of these

12 Planning Commission for number of BPL families and MERC Tariff order for connections with BPL electricity tariff.

13 Use of self closing load limiters may be encouraged as a cost effective option for metering in cases of "limited use consumers" who are eligible for subsidised electricity - National Tariff Policy (8.3.5).

14 In AP, minimum charge is Rs. 25/month if the load is less than 250 W, and Rs. 50/month if it is more.

fixed charges, a small household with a low monthly consumption could end up paying a very high tariff.

A low tariff for small consumers is also essential from the perspective of fairness and justice. A significant part of the average cost of supply or average tariff charged by DISCOMs is the result of a number of their own inefficiencies. These include high distribution losses, low recovery and high costs of power purchase (resulting from inadequate planning or governance failures in power procurement processes). Small, poor customers are also discriminated against in terms of quality of service and reliability of supply. This is reflected in different standards of performance specified by several SERCs for urban and rural consumers. It would be unjust to expect small and poor consumers to shoulder the burden of such inefficiencies and neglect.

Action ideas

For BPL consumers, low tariff, with no fixed charges and categorisation based on annual consumption, would remove many of the problems mentioned in this section. There is still a significant scope and need for further streamlining of tariff for other small consumers to ensure a sustained and affordable tariff, which can be achieved by implementing the following ideas.

The first idea is to introduce the BPL category in all states. Check if the number of consumers in this category is reasonable with respect to the number of BPL families. Revise the monthly consumption norm to 50 units/month, at least for urban consumers. Move a consumer out of this category only if the annual consumption exceeds the limit, not the monthly consumption. Streamline the procedure for re-entry into this category. Ensure that there are no fixed charges or other charges for the BPL category. If the minimum charge is based on connected load, ensure that the connected load is assessed properly. Improve metering and billing by regular meter readings, removing average billing, introducing photo metering and exploring load limiters etc.

The second idea is to do away with the many Low Tension (LT) consumer categories. Since those who use low amounts of electricity (for domestic or commercial use) are likely to be poor, it is a good idea to do away with too many consumer categories for LT consumers. Such categorisation is often a cause for harassment and corruption. Tariff for this consumer category (say LT General – which would include residential, commercial and industrial consumers) could be low for the first say 50 units, and could increase gradually in line with total consumption, to ensure total desired revenue recovery from

the category as a whole. Such an approach would avoid dangers such as BPL consumers perpetually remaining outside the ambit of the BPL tariff (due to wrong billing once in a while, etc.), or BPL consumers facing huge tariff shocks if their consumption increases marginally and they shift out of the BPL tariff. Under this category, the BPL domestic slab, with an annual limit of 600 units, should have no fixed charges, and the tariff should be about 50p/unit. All other slabs will have fixed charges and telescopically increasing tariffs. For example, slabs (units/month) and tariff (paise/unit) could be: 0-50 (75 p/unit), 51-100 (150p/unit), 101-300 (250p/unit) and > 301 (500 p/unit). The tariff could be decided based on the average of cost of

supply (say 0–50 units/month slab consumers paying 25% of the cost of supply, 101-300 slab consumers paying 100%, and > 301 slab consumers paying 200%). The consideration is that high slab consumers should cross subsidise the low slab consumers.

The third idea is regarding rural tariffs. Until the rural electricity supply and service improve, provide low tariff for rural consumers compared to urban consumers, as done in states like UP, MP, Bihar and Jharkhand. The UP rural small domestic consumer tariff is nearly one-fifth that of the urban. It goes without saying that this should not be used to perpetuate load shedding or low quality service in rural areas.

4.3 Transparency and equity in load shedding: Share the shortage

Load shedding is likely to continue for some time to come. It is essential that there is transparency, fairness and predictability in load shedding, so that there is fairness in sharing the shortage. This can be achieved through public consultative processes initiated by Regulatory Commissions to design and monitor load shedding, as has been done in some states.

Background

Load shedding is likely to continue for some years to come, even though promises of removing power shortages have been made many times. For example, the National Electricity Policy expects the demand to be



fully met by 2012¹⁵. Going by the current efforts in capacity addition and end use efficiency, this is quite unlikely. While efforts to reduce the gap between supply and demand are in progress, it is essential that there is fairness, transparency and predictability in load shedding. As long as there are shortages, it is only fair that all should participate in deciding how they should be shared. The current practice of DISCOMs preparing load shedding schedules based on broad policy directions of the State Government has many shortcomings. Public consultations are not held to understand the views of different categories of consumers. Many sudden changes are made in announced schedules. There is no proper monitoring to check whether the actual load shedding is carried out as per the announced schedules. There are no incentives/disincentives to consumers based on end use practices (theft, use of energy efficient devices, timely bill payment, etc.). These issues create problems for all consumers. But typically, the rural and the poor, who are never consulted, are the worst affected.

Action ideas

SERCs should prepare a discussion paper on load shedding, based on inputs from DISCOMs and the State Government. State-wide consultations involving all consumers including organisations representing the poor could be organised to collect feedback on this discussion paper. A public hearing should be held and the SERC should issue an order on the load shedding protocol. Rural areas with low agricultural consumption or with mechanisms to control agricultural consumption (such as feeder separation or single phasing) should be treated on par with urban areas in the load shedding protocol. Some examples of public consultations on load shedding follow.

In Maharashtra, the load shedding protocol was debated in public hearings held by the Maharashtra State Electricity Regulatory Commission (MERC) since 2005. After detailed public deliberations, the MERC has stipulated 'Principles and Protocols for Load Shedding'¹⁶. As per this protocol, about 120 divisions of the DISCOM have been classified into six groups (A to F) depending on the distribution Aggregate Technical & Commercial (AT&C) losses in the respective division. Load shedding

15 Availability of Power - Demand to be fully met by 2012. Energy and peaking shortages to be overcome and adequate spinning reserve to be available - National Electricity Policy (2.0).

16 MERC orders dated 2/8/05, 10/1/06.

hours for a particular division are decided based on the level of AT&C losses, with fewer hours for A divisions and more hours for F divisions. This protocol also stipulates load shedding hours for different scenarios in the demand–supply gap, and covers scenarios for shortages from 2500 MW to 5600 MW. The DISCOM is required to adopt the appropriate scenario based on the demand- supply gap at a given time. The load shedding protocol and feeder wise load shedding hours are given wide publicity through newspapers. This has ensured complete transparency in sharing of shortages, and the DISCOM has been made accountable for adhering to the MERC approved load shedding protocol. Several consumer groups, agricultural groups and local activists have made effective use of this transparent approach to load shedding, to ensure that rural and other areas are not discriminated against during load shedding. The DISCOM had even appealed against the MERC approach of stipulating the load shedding protocol, by claiming that it interfered with its day-to-day functioning. After hearing MERC and Consumer Representatives, the Appellate Tribunal for Electricity (ATE) has held (ATE Judgement dated 31/7/2009 on appeal 173 of 2008) the following:

“17 ... section 23 of the Act quoted (Electricity Act - 2003) gives adequate powers to the State Commission to pass necessary orders for securing

equitable distribution of electricity....

18. Further, section 79 (1) (i) reproduced below, specifically requires the State Commission to specify and enforce standards with respect to quality, continuity and reliability of service by the licensees.

19. Directions by the State Commission to adhere to the load shedding protocol can also be treated as in the nature of standard with respect to continuity and reliability of service by the appellant.

20....we do not find any substance of the argument of the appellant that the State Commission has exceeded its jurisdiction by issue load shedding Protocol. ...”

Thus, the need and mandate of the MERC to ensure equitable distribution of electricity and to issue a load shedding protocol or guidelines for this purpose have been upheld by the ATE as well.

To ensure further accountability in terms of the load shedding protocol, the MERC required the DISCOM to publish on its website the hourly supply and load profile for all 11 kV distribution feeders. MahaVitaran, Maharashtra DISCOM, is the first and only DISCOM in the country to actually upload the hourly load profile data of all 11 kV feeders on its website every month.

In Orissa, the OERC conducted a public consultation process with a consultation paper, collected feedback, and held a public hearing on 'Power Regulation Protocol' in 2009-10. The order of the OERC (dated

14/1/10) following this public process has many suggestions to rationalise the regulation of load. It noted that the Commission is mandated to take action under Section 23 of the Electricity Act '03, which states the following: *“If the appropriate Commission is of the opinion that it is necessary to expedient so as to do for maintaining the efficient supply, securing the equitable distribution of electricity and promoting competition, it may, by order, provide for regulating supply, distribution, consumption or use thereof”*.

In Uttarakhand, the UERC had initiated a discussion on power cuts through concept papers in 2007 and 2009. Recently, the UERC requested the DISCOM to submit a proposal on load shedding, and after

analysing the proposal, passed an order (dated 18/1/10) with details of load shedding.

Mechanisms to oversee the implementation of the SERC order on load shedding should be put in place. This could be done by the State Advisory Committee of the SERC, or a representative committee set up for this purpose. DISCOMs should make the hourly load data on 11 kV feeders public, so that regular public scrutiny of load shedding implementation is possible. Such measures to ensure transparency and accountability in load shedding go a long way in protecting interests of small, poor consumers, and do not require any major policy or institutional changes, or financial resources.

4.4

A UMPP for the east, a UMPP for the west,
how about a UMPP for the poor?



Background

Quality, affordable electricity supply can catalyse income-generating activities, enhance community services and thus

Shortage of power is cited as the major reason for load shedding. Backward areas suffer from a vicious downward spiral: load shedding leads to low development, which further increases the load shedding. The only way to break out of this deadlock is by taking bold steps like reserving an Ultra Mega Power Project (UMPP) to get rid of load shedding in the most backward districts, thus helping the poor get out of poverty.

promote development. The National Electricity Policy begins by emphasising the following: “*Electricity is an essential requirement for all facets of our life. It has been recognized as a basic human need. It is a critical infrastructure on which the socio-economic development of the country depends. Supply of electricity at a reasonable rate to rural India is essential for its overall development.*”
- National Electricity Policy (1.2).

Poor quality of electricity supply is one of the reasons for low development. Crucial livelihood activities like small shops, cold storage or industry become impossible or unviable without electricity supply. Health facilities and drinking water supply suffer. The rich are able to invest in costly power backup equipment (which in itself creates major inefficiencies), but the poor have no such option. Thus they get caught in a vicious downward spiral: load shedding, which leads to low development, which further results in poor attention from the DISCOM (regarding quality of supply and service, investment, etc.), further leading to higher load shedding

Action ideas

To kick-start change, a few districts with low Human Development Index (HDI) figures could be identified, and a plan drawn up to make them free from load shedding for LT consumers. Around 100-120 districts of the 600 odd districts could be chosen based on HDI or other composite indices.¹⁷

The supply issue could be addressed at a national level by reserving some portion of power. This could be a combination of unallocated power from central generating stations, the state share of free power, or a dedicated Ultra Mega Power Project (UMPP)¹⁸. Indicative calculations, assuming that each backward district will need an additional 100 MUs/year in sales to remove load shedding for LT consumers, and 50% transmission & distribution loss (a rather high figure), show that an additional generation of 20,000 MUs would be needed for 100 districts. This is well within the expected generation from one UMPP only. With a generation cost of less than Rs. 2/unit, such a UMPP could provide affordable power for poor consumers. There will not be much adverse impact on

17 For example, the Planning Commission in 1997 had suggested a composite index combining poverty, education, health, water supply, transport and communication, and industrialisation.

18 This idea is similar to that suggested by TL Sankar in 2002 (Towards a people's plan for power sector reforms, EPW, 5/10/2002) and what was done in the USA, where under the New Deal in the 1930s, cheap power was reserved for rural electrification.

the finances of the utility if such low cost power is available to supply to low tariff consumers. This step of allocating common resources to break the deadlock of poverty is in line with the principles of inclusive growth.

Quality of supply and service could be improved through better infrastructure (created through the RGGVY or the R-APDRP) and greater management attention. Poorer states (Bihar, Jharkhand, MP, Chhattisgarh, Rajasthan, Uttar Pradesh, Orissa) may have many backward districts and will need maximum support. The other states have much fewer districts with a low HDI.

To ensure that states actually use this UMPP

allocation and capital investment for removing load shedding in poorer districts, strict accountability measures could be used. For example, installation of automatic meters on all 11 kV feeders in selected districts, with a facility to upload supply availability data on a publicly accessible website, would aid easy monitoring of the supply scenario. Similarly, low cost voltage recording devices capable of data transfer through mobile networks could be fixed at say 1000 end use locations (houses, shops, etc.) to ensure real time data collection of supply availability. The financial requirement to create such accountability systems would be a very small fraction of resources being spent on grid extension through the RGGVY.



4.5

Third party audits of DISCOM metering and billing: Set your house in order first

For most legally connected consumers, especially the poor, maximum problems with the DISCOMs are in the area of metering and billing. Mistakes and errors in this area are often cause for harassment and disconnection. DISCOMs are responsible for this function, and unless there is a third party audit by a credible agency, the situation cannot improve

Background

After load shedding, the major problem for consumers is in the area of metering and billing. Nearly 80-90% of complaints to Grievance Forums

are related to metering and billing¹⁹. Problems include malfunctioning meters, irregular billing, issues arising out of average billing, delays in correction of wrong bills, etc. Wrong metering and billing is often one of the reasons for the harassment of the poor, and the permanent disconnection of their electricity connections²⁰. There are also instances of under-reporting of consumption by high-end consumers, as well as over projection of consumption by small consumers (often not metered). In addition, there are also instances of DISCOMs not following legal provisions while dealing with wrong metering complaints²¹. In these times of growing computerisation, abnormal bills and large numbers of disconnections are an indication of mistakes and neglect of the metering and billing systems.

The responsibility for metering and billing lies with the DISCOMs, and it is high time

that they set their own house in order. Rigorous third party monitoring and independent audits can ensure that there is a sustained improvement in the situation. The National Electricity Policy recognises this and notes the following: “*The SERCs should also put in place independent third-party meter testing arrangements.*” National Electricity Policy (5.4.9). This approach of third party testing needs to be extended to audit of metering and billing systems also. It is worth noting that many other service providers, like telephone companies, are subject to independent audits of metering as well as quality of service.

Action ideas

SERCs should initiate third party audits of metering and billing systems, as reported from states like Uttarakhand and Delhi.²² Billing audits could include checking the efficiency of billing software, checking for

19 Protection of Consumer Interest, Report by the Forum of Regulators, 2008

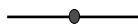
20 A rapid field survey by Prayas in few tribal taluks of Thane district showed that nearly half the number of households with legal connections were permanently disconnected due to non-payment, which in turn was mostly due to problems in metering & billing. Thus, only one-fourth of the households had legal connections.

21 For example, the provision in the Electricity Act (Section 56), that service is not to be disconnected if the consumer pays the six month average charges, is often not followed.

22 In Uttarakhand, IIT Rourkee was doing this on a sample basis before UERC started analysing billing data of the DISCOM from 2007, and reporting anomalies. UERC has also commissioned third party agencies for this purpose. DERC conducted public hearings on metering & billing issues (2004) and organised third party testing of meters (2005) in the face of the public perception about the fast running of meters.

abnormal bills (compared to monthly figures of similar consumers) and analysing disconnections. A sample of meter readings and meters should be periodically counter-checked through a third party. In case of un-metered consumers (agriculture, small domestic, etc.), DISCOMs should be mandated to set up metering for counting the total consumption (say metering at the

Distribution Transformers or group supply points). These should also be subject to periodic audits. Reducing metering and billing errors would be one of the most important aspects after electrification drives in improving services to the poor, and preventing de-electrification or recurrence of hooking and illegal connections.



4.6 Make grievance redressal mechanisms effective: Reach out to people



Background

Consumers approach the DISCOM when they have complaints. The general level of satisfaction with the DISCOM response is low. To improve the consumer interface, all SERCs have made regulations on the DISCOM Standards of Performance (SoP), Consumer Grievance Redressal Forum (CGRF) and Electricity Ombudsman. SoP regulations give performance benchmarks, with a provision for compensation to consumers if these are not met by the DISCOMs. CGRFs are expected to provide time-bound resolutions of complaints. Thus, these

Explicit quantification of quality of supply and service performance benchmarks, and setting up consumer grievance forums, are two pro-consumer initiatives. But very few small consumers and groups know about them. Used by only a few, they have not become effective pressure points for the DISCOMs to improve quality of supply and service. If at all they are used, it is usually by big consumers. There is an urgent need to strengthen the grievance redressal process, and increase its attention towards poor consumers. The grievance redressal mechanism has to reach out to the poor, rather than wait for the poor to approach the concerned officials.

measures are expected to mount pressure on DISCOMs to improve the quality of supply and service. The Electricity Act - 2003 has placed a high emphasis on standards of performance (sections 57-60), grievance forum (section 42-5) and ombudsman (section 42-6,7).

Even though five (or more) years have passed after issuing these regulations, implementation of these provisions has not been very effective, especially with respect to addressing issues of small consumers. Grievance Forums were set up by DISCOMs after long delays, even though the Electricity Act mandated setting them up within 6 months. Awareness among the general public about these systems is very low, the number of complaints received by the forums continue to be low, and the amount of compensation paid by DISCOMs is rarely recorded and has also been low where it is monitored. The typical reaction of the rural small consumer, when told about these provisions, is surprise followed by questions indicating a complete lack of awareness of these systems. Even though the Electricity Act (section 59) mandates the SERC to publish a report on the standards of performance of DISCOMs every year, this has not been done. The ineffectiveness of CGRF mechanisms in certain cases, is evident from

the fact that even in urban areas like Pune, consisting of 15 lakh consumers, only 98 complaints were filed before CGRF in five years since its establishment. The irony is that over Rs. 85 lakh were spent on CGRF (salary, vehicle and telephone expenses) during these five years – all paid by consumers through Annual Revenue Requirement²³. Apart from low levels of awareness amongst consumer, lack of pro-activeness on part of CGRFs or at times even discouraging consumers to file complaints, are some of the reasons for such low usage of CGRFs.

DISCOMs, SERCs and civil society organisations should take steps to improve the situation. Here, the focus should be on making the grievance redressal mechanism more effective, so that it reaches out to the poor, rather than waiting for the poor to approach the concerned officials.

Action ideas

DISCOM is the first interface with the consumers. Many steps should be taken to make this interface poor-friendly. Regular meetings at a substation level with participation of all categories of consumers should be the first step. The Consumer Grievance Forum (CGRF), set up by the DISCOMs, should have a full quorum of

²³ Information obtained by Sajag Nagrik Manch, Pune through Right to Information Act.

members including the consumer representative suggested by the SERC. The consumer member should be treated at par with other members of the CGRF in terms of voting rights and allowances. The chairman of the CGRF should not be serving employees of the company. Wide publicity should be given to the provisions of the Supply Code, Standards of Performance and CGRF through notice boards, newspapers, television, radio and electricity bills (as done by some companies). The CGRFs can take many pro-active steps, like holding awareness meetings, organising complaint camps at different locations (done in a few states), and even taking up consumer issues on a suo-moto basis. Provision should also be made for automatic filing of complaints through websites or post.

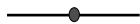
Many SERCs are not even monitoring the DISCOM's compliance with Standards of Performance, and the effectiveness of the grievance redressal mechanism. SERCs should improve monitoring of the SoP reports by the DISCOMs through improved formats (category and geography

segregated reporting, modifying benchmarks based on performance, etc.), third party checking, and setting up local level institutions like SoP monitoring committees, as suggested in Section 166(5) of Electricity Act. Compensation to the consumer for violation of SoP should be made automatic (for most violations), and it should be recovered from utility profits. SERCs could suggest to the DISCOM that it should charge part of the compensation amount to the employee (following a process to look into the cause of the lapse, as was done in AP). The Ombudsman is an institution set up by the SERC. This institution needs to be strengthened by the SERC appointing an independent Ombudsman (and not asking SERC staff to manage the responsibility), and providing adequate resources. The Forum of Regulators has released the 'Model standard of performance regulations for distribution licensees' in November 2009, which suggests some good practices²⁴. SERCs could discuss and adopt some of these.

Civil society organisations should build awareness about the SoP regulations and

²⁴ Performance benchmarks are differentiated across cities/towns/villages (e.g. 3/4/8 hours to restore supply after a fuse off call) with further options to differentiate based on weather conditions, etc. The SERC or a third party can audit the DISCOM reports; audit guidelines are provided. DISCOMs are to prepare complaint manuals (in local languages also) and set up call centres in cities, towns and rural areas with a toll free number. Functioning of the call centre (like first response, registering complaints) is also a performance parameter.

grievance procedures. They could set up independent complaint collection centres, consolidate complaints and make representations to the CGRF/Ombudsman on behalf of consumers. They should also participate in DISCOM/SERC initiatives towards awareness building, audits of SoP and functioning of GRFs.



4.7 For whom the RGGVY tolls? Organise public reviews

The RGGVY is India's biggest rural electrification programme, which is being implemented in 500 odd districts across the country. The targets are ambitious, but it is now clear that they will not be met. The programme is planned, financed and monitored largely by the Central Government, with limited roles for state level institutions. It is high time that State Electricity Regulatory Commissions (SERCs) organise a public review of the RGGVY, so that state actors and people can participate and thus provide midcourse corrections. If this is not done, there is a danger that large amounts of public money spent on setting up substations, distribution transformers and lines will not benefit the poor.



Background

The RGGVY, launched in 2005, is the biggest rural electrification programme in the country, with an aim of electrifying 1.25 lakh villages, and providing free connections to 2.34 crore BPL households, by 2012. It is expected to cost Rs. 42,000 crores. Implementation is in progress in nearly all districts spread across all states. The Government of India is contributing around Rs. 6000 crores per year to this programme. The State is expected to contribute the remaining portion, and the

DISCOMs are expected to manage the systems built under the RGGVY.

As reported by the Ministry of Power, the progress of the RGGVY has been much slower than expected. There have been problems in planning as well as implementation. Many states have not prepared detailed rural electrification plans, which were to be notified within 6 months

from the beginning of the RGGVY²⁵. As of March 2010, 66% of the targeted villages have been electrified, but franchisees are reportedly set up in about 15% of the villages. Only about 40% of the BPL households have been given connections. The total amount released by the Central Government is about Rs. 20,000 crores, which is about half the projected cost. It is clear that the stated targets will not be met by 2012. To quote from the Parliamentary Committee on RGGVY (2009): *“At this backdrop, the Committee are deeply concerned to note that the Ministry (of Power) have lost sight of their target of 100 per cent rural electrification due to unrealistic planning and poor programme implementation capacity. The Committee, while deploring the poor implementation of the RGGVY, expect the Ministry to review all aspects of implementation of RGGVY, to make realistic planning in future and to speed up the pace of implementation of the programme.”*

The mechanisms envisaged under the RGGVY to monitor quality have many limitations. The 3-tier quality monitoring mechanism (involving the implementation agency, Rural Electrification Corporation

and the Ministry of Power) is too far removed from the field of action. It is also non transparent and not very responsive. The website of the RGGVY, inaugurated in May 2008 (3 years after the programme started!), provides a detailed status report (up to the village level), and thus does indeed increase transparency. But there are differences in the reported data and field situations. As per the RGGVY continuation order (MoP, 2008), states are to give a guarantee of a minimum daily power supply of 6-8 hours on the RGGVY network, and franchisees are to be set up. General feedback from the field is that hours of supply are low and franchisees are not fully operational. The public forum at the RGGVY website for providing feedback is a good facility, but the fact that only 70 entries are there in the last 2 years (last accessed in February 2010) speaks for its effectiveness! Some responses are given within 1-2 months, but are often not very satisfactory. District committees are not functioning well to monitor the progress.²⁶ There are no regular meetings or public processes to monitor progress. State level

25 As of December 2008, only 5 states (Gujarat, Tamil Nadu, West Bengal, Mizoram, & Nagaland) have notified plans and another five (Chhattisgarh, Haryana, Himachal Pradesh, Maharashtra & Punjab) have finalised plans.

26 For example, the parliamentary committee on RGGVY notes the following: Though, all the 27 States participating under the RGGVY have reported that notifications have been issued for setting up District level Committees, the meetings need to be more regular.

reviews by the Planning Commission have been cursory in nature. Details of the progress of the RGGVY being provided in recent tariff submissions is limited only to Orissa. It is also not clear how the Rs. 160 Crores that was earmarked in 2005 for enabling activities like technology development is being utilised.

Action ideas

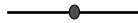
Transparent review with public participation at all levels – local, state and national - is the requisite urgent first step.

The SERCs should take up a public review of the RGGVY in respective states, since the implementation is happening in states, and the DISCOMs regulated by them have

to manage the system. SERCs have the overall responsibility of regulating the sector, and they should rise up to the mandate of ensuring universal access stated in the National Rural Electrification Policy.²⁷

Civil society organisations could take up social audits of ongoing RGGVY works in their area. They could use the existing feedback mechanisms and raise issues regarding the RGGVY in regulatory public hearings, district committees, or in the assembly.

Inputs from state level reviews by SERCs and local audits by civil society organisations should be consolidated at the national level by the Ministry of Power to prepare midcourse corrections.



²⁷ Under proviso to Section 43 of the Electricity Act - 2003, the Appropriate Commission while giving additional time, if any, for discharge of the universal service obligations would ensure that the national goal of providing access to households by year 2009 is complied with - Rural Electrification Policy (Section 3.4).



4.8 Listen to the poor: Bring their voice into regulatory forums

The regulatory processes have indeed helped to increase the participation of consumers in regulatory forums, including public hearings. But the representation of the poor in these forums has remained dismally low. This is expected since the poor and organisations representing the poor do not have the resources to use such participatory provisions. Increasing their representation requires pro-active efforts by the SERCs.

Background

Regulatory Commissions as well as institutions like the Consumer Grievance Redressal Forum and the Ombudsman are good avenues for the poor to raise their voice. But the participation of groups representing the poor in these forums continues to be low. The number of objectors in regulatory tariff hearings (the most important and publicised events of the SERCs) is low, ranging from 10-15 (consisting of retired officers, lawyers representing big consumers, industry or commerce organisations) in most states to a few hundreds in some states (Maharashtra, AP, MP), and a few thousands in Karnataka. Of course, a larger number of objectors is not an indicator of the quality of representation of the interests of the poor, but a low number definitely indicates non-representation. Participation of pro-poor groups in other hearings, in providing

feedback to discussion papers, or in representations in Advisory Committees, has also remained low. There are also cases of the poor not being heard in such forums, due to a denial of opportunity for representation, or the insensitive nature of the regulator. The electricity service delivery to the poor will remain neglected as long as their voice is not heard in regulatory forums.

There are many examples of ongoing efforts in different states to promote consumer awareness and enhance participation. Initiatives from the regulatory commissions include: Karnataka Electricity Consumer Network (from 2000, many Kannada publications, awareness events, consumer survey), Assam Consumer Advocacy Cell (from 2005, 11 empanelled groups, consumer grid quarterly newsletter), Maharashtra (appointment of consumer representatives

under Section 94.3 of Electricity Act), MP consumer awareness work (120 registered NGOs, 8 lakh pamphlets on SoP, workshops for NGOs), UP Bijli Dost (consumer helpline, publications), publication of awareness material (print and audio-visual) in local languages (Orissa, MP, Jharkhand, Uttarakhand), and Orissa consumer counsel (expected to analyse DISCOM submissions from a consumer perspective). Civil society initiatives include organisations like Consumer Unity and Trust Society (Rajasthan), and Consumer Education and Research Centre (Gujarat), which work on consumer awareness, and People's Monitoring Group on Electricity Regulation (AP), a group consisting of farmer associations, unions and NGOs, successfully representing public interest issues since 1999.

These are welcome initiatives, but many of them do not have a pro-poor emphasis. Specific, consistent efforts are required to increase the participation of the poor.

Action ideas

SERCs should take up consumer awareness building and training programmes, improving the ongoing initiatives with additional focus on small consumers, dissemination of material in local languages and use of audio-visuals. This will be in tune with the suggestion in the National Electricity Policy²⁸ and the report of the Forum of Regulators – 'Protection of Consumer Interest' (2008).²⁹

SERCs should also plan public hearings on important issues (like Tariff and Load shedding) at multiple locations. They could also reserve a day for consumer groups representing small consumers. There should be adequate SERCs staff to interface with consumer issues, and they should be sensitised to the issues of the poor. SERCs can appoint an officer with the sole responsibility of assisting and guiding the small consumer (or organisations working with them), in matters such as understanding various rules and regulations, service standards specified for DISCOMs,

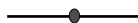
28 The Central Government, the State Governments and Electricity Regulatory Commissions should facilitate capacity building of consumer groups and their effective representation before the Regulatory Commissions. This will enhance the efficacy of regulatory process - National Electricity Policy (5.13.4).

29 SERCs should organise regular orientation courses for capacity building of consumer advocates. Such orientation courses could also be organized by FOR in order to give the consumer advocates wider awareness and opportunity for sharing of experience in other states (FOR Report, 2008).

the procedure and documents required for filing petitions before the commission, etc.

To give a fillip to pro-poor voices in the regulatory process, SERCs should conduct separate public hearings devoted only to the issue of service delivery to the poor. SERCs should cultivate pro-poor groups or researchers (working on issues like water, housing, public health, human rights, food security, and livelihood issues of the poor, if not electricity) to take up and represent issues of small electricity consumers. Groups spread over the state could be enlisted to represent different categories of consumers, and could be financially

supported for a few years. They could undertake surveys of service delivery to the poor, monitor programmes like the RGGVY, audit standards of performance, monitor compliance with various pro-poor directives/regulations, etc., and represent the poor in public hearings and grievance forums. Reports or papers of such independent assessments could form the basis for dedicated public hearings on issues concerning the poor. This will also enable the SERC to identify and cultivate different groups working on issues concerning the poor, which can bring such issues before the regulatory process.



4.9 Power power everywhere, where is the light for homes near the power house?

It is a sad commentary on our development paradigm, that houses even in the vicinity of big power plants do not have electricity access. Providing sustainable electricity access to them should be an integral part of the project design.

Background

It is a sad commentary on our development paradigm, that homes in the vicinity of big power plants, where power lines crisscross the sky, do not have electricity access. Worse yet, usually this population would have lost land and livelihood when the project was set up. A large share of power plants do not meet environmental standards, and the population living near the plant suffers from the pollution of air, water and soil. The

history of rehabilitation and resettlement of project-affected families has generally been poor.

The National Hydro Policy (2008) has some provisions to address relief and rehabilitation issues in the case of big projects. This includes setting aside 2% of the generation for local area development, providing 100 units/month for project affected families for 10 years, and providing 10% financial support for the RGGVY within 2-10 km of the power house. These provisions are good, but there have been many gaps in implementing them. These include questions on the proper utilisation of the local area development fund (perhaps it is better to route it through gram sabhas), and delays in support to the RGGVY.

Unfortunately, there are no similar provisions for other big projects based on coal, gas, nuclear, wind or solar sources. The “Scheme for Provision of Supply of Electricity in 5 km area around Central Power Plants”, announced by the Ministry of Power in April 2010 is welcome, but has a limited scope of covering only central plants and providing electricity for lighting homes. Some project developers undertake electrifying project villages as corporate social responsibility, but what is needed

instead is a social mandate. There should also be measures to make landowners stakeholders in the project by measures like considering the acquired land on long lease. While such measures are being discussed, the following immediate actions could be undertaken by project developers and regulators.

Action ideas

Long term rehabilitation and resettlement would take time since it involves many issues and actors, some outside the electricity sector. The immediate action item should be to ensure that all homes within a few kilometres of the power house (say 5 km), should be given electricity connections and quality power supply on a priority basis. Electricity supply should support lighting, community use and economic activities. The area should be made load shedding free, irrespective of the state-wide power situation. All big generation projects (say more than 100 MW; whether they are hydro, coal, or renewable; in public or private sector) should adopt this measure as a social mandate and not as an optional corporate social responsibility initiative. Project developers should ensure that this is done with the required support from regulatory commissions and distribution companies.

4.10

How can one fix what one does not know: Data collection and analysis for small consumers



Background

Awareness about issues of the poor amongst policy makers, regulators and DISCOMs is rather low. There is a widespread neglect of data collection, reporting and analysis of data concerning small consumers. It is nearly impossible to get credible data about the consumption levels of small consumers, their end use patterns, or the number of hours for which electricity is supplied to them. Many small consumers are not metered (at the individual or even at the group level), and therefore there is no good estimate of their consumption.

There are very few studies of the impact of electrification on the poor, either covering positive impacts of electrification, or negative impacts due to absence of quality and affordable access to electricity. There are also very few instances of consumer surveys being undertaken with a focus on small consumers. There have been some efforts by the NSSO, international agencies

There is a severe inadequacy in data collection and analysis of data for all aspects of small consumers: their actual numbers, consumption patterns, and hours of supply. The majority of consumers are small consumers, and their number will increase with programmes like the RGGVY. It is imperative that the existing reporting agencies like the CEA increase their coverage to regularly report about the aspects of small consumers mentioned above. This is essential to track the progress of the electricity service to the poor and solve their problems.

(like the World Bank), and a few researchers or voluntary organisations, but these are clearly inadequate or unsystematic. Reports by organisations like the Central Electricity Authority, Power Finance Corporation, Rural Electrification Corporation, Electricity Regulatory Commissions or DISCOMs remain focussed on generation, transmission, distribution, macro level end

use and financial data. They have very little information about consumers, and hardly anything about small consumers.

Action ideas

Mechanisms need to be set up to collect and analyse information related to consumers on a regular basis, with a special focus on small consumers. This is essential to track the progress of the electricity service to the poor, and solve their problems.

The CEA or the Forum Of Regulators should take up the task of regularly preparing reports having consumer data, with special focus on the poor. The national data collection efforts – census, NSSO surveys, etc. – should include a framework to capture this data. Data could include consumption patterns, end use patterns, electricity access and impact of electrification, quality of service and quality of supply, compliance with the supply code and standards of performance, functioning

of grievance redressal mechanisms, etc. The details of this data collection could be evolved in consultation with various experts, civil society groups, organisations working with poor, etc. This would facilitate the monitoring of progress in improving electricity service to the poor.

Surveys should be commissioned by the SERCs to study the issues of the poor. These should bring out hours of power supply in different areas, incidences of theft, costs incurred by the poor due to poor quality of supply and service, etc.

The SERCs should mandate the DISCOM to undertake measures to improve their accountability. This includes initiatives like the Electricity Supply Monitoring Initiative (ESMI), to record the consumer level voltage and interruptions for a selected sample, and at least bulk metering of un-metered consumers, to prevent DISCOMs from arriving at an excessive estimate of the consumption.

* * *

5. Many Ideas, One Challenge

This discussion paper has outlined the issues of electricity service to the poor that are served by the grid. It has outlined ten action ideas which could be implemented in the existing framework. These techno-financially feasible ideas would provide immediate relief to the poor. Some of these ideas are being implemented in a few states, but need to be replicated in the remaining states.

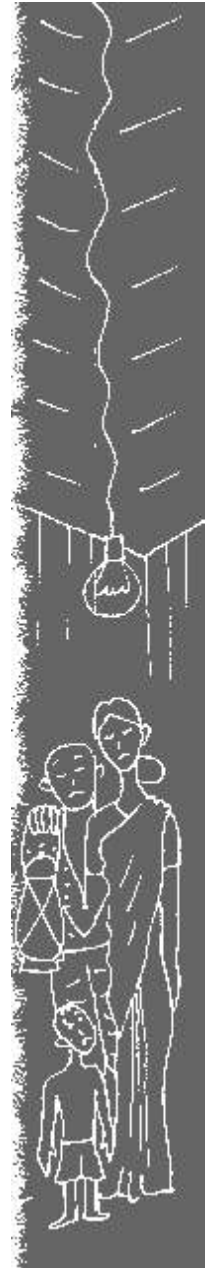
It can be seen that some of these ideas call for new steps involving many actors (e.g. 100 x 100 drive, or making districts load shedding free), whereas some involve improving existing processes (e.g. making the grievance process effective, or increasing the representation of the poor). All these ideas are aimed towards providing sustained, affordable, adequate and good quality electricity access to the poor in near future. There are overlapping areas across the ideas suggested in this paper, but the appropriate ones could be selected and fine-tuned based on the local context. For sustained impact, the relevant ideas have to be simultaneously implemented. While it is not claimed that these ideas will solve all the problems of the poor, there is confidence that they will definitely help the poor.

SERCs, DISCOMs, and State & Central power ministries must take the initiative to implement these ideas. The challenge is to work on these ideas, rather than being pre-occupied with market promotion aspects, or staying forever locked up in debates about structural or ownership issues. If it is felt that the ideas suggested are not appropriate, then there is a need to come up with suggestions to supplement or replace some or all of them, so as to result in a faster improvement of electricity service delivery to the poor. Needless to say, the efforts must not stop with implementing a few of these ideas. We must not lose sight of the more fundamental, long term issues like incentive mechanisms to serve the poor, accountability of



DISCOMs and regulators, and an equitable development paradigm. These action ideas should be seen as the essential first step and a window of opportunity to protect the poor, till long-term measures are rolled out and proven effective.

It is high time that the actors in the electricity sector internalise the belief that quality access to the poor, considered unviable from the short-term financial perspective, is viable and also essential from a long-term socio-economic perspective. It is also pertinent to note that the existing legal framework and instruments have sufficient scope to take up pro-poor measures and signalling their priority ordering. We hope that the sector actors will take up some or all these ideas for implementation. For guidance, they only need to recall Gandhiji's talisman: “ *Whenever you are in doubt, or when the self becomes too much with you, apply the following test. Recall the face of the poorest and the weakest man whom you may have seen, and ask yourself if the step you contemplate is going to be of any use to him. Will he gain anything by it? Will it restore him to a control over his own life and destiny? In other words, will it lead to swaraj for the hungry and spiritually starving millions? Then you will find your doubts and your self melting away.*”



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These and all other publications of Prayas Energy Group are available at www.prayas-pune.org/peg

Apart from publications and many workshops, Prayas has been participating in the Power sector activities through several committees. This includes:

- Member - CERC Advisory Committee (from 1998), MERC State Advisory Committee (from 1999), APERC State Advisory Committee (from 2007)
- Supreme Court Committee on Municipal Solid Waste, 2006
- Member, National Working Group on Power set up to prepare the XI Five year plan (2007)
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- Member, The National Mission on Enhancing Energy Efficiency (NMEEE), 2008
- Member, Planning Commission Expert Group on Strategy for a Low Carbon Economy, 2010

* * *

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* * *

Electricity for All Ten Ideas towards Turning Rhetoric into Reality



Even after six decades after independence, and two decades since the arrival of 'reforms', the poor continue to miss the electricity bus. The first decade of reforms had no explicit focus on poor. The few recent initiatives like the Rajiv Gandhi household electrification program or quantification of standards of performance for distribution companies are yet to yield results. There is an overwhelming feeling in civil society that the basic needs of the poor have been neglected, while there is disproportionate interest in market related issues, which immediately benefit large consumers. It is no surprise that the electricity generation has increased by 60% in the last decade, but there has been only about a 10% increase in access for households. This paper argues that the crucial shift from the rhetoric to the reality of providing electricity for all demands that the current business as usual approach must make way for certain urgent, innovative steps to be implemented by regulators, distribution companies and the Government. Some of these steps require major policy or structural changes and therefore would take time, while others could be implemented in the existing framework. This paper outlines ten such techno-financially feasible action ideas, which would result in quick improvement in electricity service delivery to the poor. In fact, some of these ideas have already been adopted in some states, and need to be replicated by more states.

प्रयास

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