A Handbook of Legal Options for Universal Service Obligation for the Energy Services in Rural India

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ABOUT THE PROJECT

The Universal Service Obligation campaign aims at getting the Central and State electricity regulators to issue a legally binding order, in which the concerned state electricity utilities/governments will have to comply with "Universal Service Obligation", which is adequately defined, with time lines and milestones and incorporate already existing provisions under the Electricity Act 2003, the National Electricity Policy 2005 and the Rural Electrification Policy 2006.

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- Minimum Needs Program (MNP)
- Kutir Jyoti Scheme
- Pradhan Mantri Gramodaya Yojana
- Accelerated Rural Electrification Program (AREP)
- Accelerate Electrification of One Lakh villages and One Crore Households
1. **Background and Rationale**

India is one of the fastest growing economies in the world with the annual growth of 7-8% and has 70% of its population residing in rural areas. Yet only 60% of the rural population have access to electricity. The Government of India has launched and implemented several schemes and projects since Independence, yet a lot remains to be done in key sectors such as education, medical facilities, infrastructure and electricity to improve the standards of living of rural India.

For a key sector like power, the need to extend the benefits of electricity to peri-urban and rural areas was realised by the Government immediately after independence. Although the State Electricity Boards were established way back in 1948 through the Electricity Supply Act, the Five Year Plans focussed on electricity supply, the corporatisation of electrification for rural India happened way back in 1969 through the Rural Electrification Corporation and several schemes such as Kutir Yojana were introduced, the village level access and electrification in the true sense of the term is still distant for a majority of rural India.

The challenges of management, finance, sustainable maintenance of infrastructure stock and availability of reliable service, are immense and such schemes/programmes could not achieve their goal in entirety. As a result, while 94% of urban households are electrified in rural India only 60% of households are electrified leading to more than 43% still using kerosene to light their houses. So what is ailing the system and what are the legal obligations of the state that would ensure a minimum supply of electricity to the majority of rural India. Is it just a matter of scale or there is lethargy in providing

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1 According to India Human Development Survey report 2005, the overall household electrification in India is only 70%. With 94% of urban households having electricity and only 60% of rural households having access. http://www.eia.gov/countries/cab.cfm?fips=IN

2 See for example Rajkiran Bilolikar and Ravi Deshmukh; Rural Electrification in India – An overview; NPTI. http://mahadiscom.com/ermagazine/mar06/Rural%20Electrification.pdf

the basic minimum or there is outright violation of basic fundamental right. All these questions are relevant and needs a thorough examination from the legal perspective.

ELDF and Vasudha Foundation, both working in this sector from social and legal perspective for several years therefore decided to examine this question both from the field based experience as well as from the legal perspective focusing on the Universal Service Obligation which is now a legal mandate and supported by the court decisions. The paper would not only sets the context of rural energy access and obligation of the state but also examines the various legal options that now exist to ensure that rural energy access becomes not just a matter of state largesse but a statutory obligation leading to a basic right of every Indian living in rural India.

2. Understanding the concept Universal Service and Universal Service Obligation: International Scenario

Before we embark on understanding the legal obligation of rural energy access in India it would be prudent to understand the rationale, context and history of this term USO and where it originated and how it can be relevant in the Indian context.

2.1. Postal Service Reform in UK: the first seeds of USO

The concept of “universal service” was first found in Sir Rowland Hill’s Post Office Reform wherein postal rates were reduced to uniform rates throughout Britain and made affordable to most through postage stamp and a General Post Office monopoly on mail.4 Theodore Vail, the founder of the Bell System, first used the term “universal service” to refer to what we today would call “interconnection”, meaning at the relevant time that any telephone customer should be able to call any other telephone customer using only one telephone service. Later the regulators used ‘universal service” to mean that everyone was entitled to telephone service. Soon these reforms were adopted worldwide, in various public service sectors.

2.2. Communications Sector as a harbinger of USO in USA

In the United States, the concept of universal service came to be established as a national policy by the Communications Act of 1934. The Preamble of the United States’ Communications Act of 1934, which for the first time incorporated the concept of universal service in the national policy, declared its purpose as “to make available, so far as possible, to all the people of the United States, a rapid, efficient, nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges”5.

The European Directive on telecommunications6 too defines “universal service” as “minimum set of services of specified quality to which all end-users have access, at an affordable price in the light of specific national conditions, without distorting competition”. In fact the Working Party’s paper on universal service obligation in EU states that the common view about the notion of universal service was that of guaranteeing affordable access to a minimum set

5 Section 151 of Communications Act 1934 http://www.dinf.ne.jp/doc/english/Us_Eu/ada_e/telecom_act/47/151.html
of pre-determined services for all that would help prevent social exclusion and maximise the economic benefits of existing telecommunication networks.

While the above sets the context of universal service in telecommunication arena, the general understanding is that it’s an economic, legal and business term used mostly in regulated industries, referring to the practice of providing a baseline level of services to every resident of a country. In the legal parlance the concept of “universality” which broadly means “equality of applicability” may be understood as an essence of universal service obligation.

The practical operationalisation of universal service by most countries is met through a dedicated fund called USO fund and has been named variously in different country context (see Box 1). The countries usually require the incumbent operator to be the designated USO provider or USP. Thus, the USO is funded by rates/tariffs, and also by scale and scope in different economies. Some countries have a Universal Service Fund and have all their telecommunications industries pay a part of their net earnings into it.

### BOX 1

<table>
<thead>
<tr>
<th>Country</th>
<th>Name of the USO dedicated fund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chile</td>
<td>Telecommunications Development Fund (FDT)</td>
</tr>
<tr>
<td>India</td>
<td>Universal Service Obligation Fund (USOF)</td>
</tr>
<tr>
<td>Pakistan</td>
<td>Universal Service Fund Company (USF Co.)</td>
</tr>
<tr>
<td>United States</td>
<td>Universal Service Fund</td>
</tr>
</tbody>
</table>

#### 3. USO in Indian Context: Telecom sector leads the way

Today USO as a legal mandate in India is seen only in telecommunication sector. The very first attempt of application of USO concept in India was made after liberalization where a National Telecom Policy was formulated in 1994. The main objectives of the policy were to provide better quality of telecom services and to achieve universal service covering all villages at the earliest through privatisation. The policy describes the expression “universal service” to mean access of certain basic telecom services at affordable and reasonable prices to all people.

Most of the projects under the National Telecom Policy of 1994 were not able to meet the objectives due to the fact that the actual revenues realised by these projects were far short of the projections and the operators were unable to arrange financing to complete their projects. The above and also the need for an effective regulatory framework, adequate safeguard to ensure fair competitions and protection of consumers interests, prompted the Government of India to form the Telecom Regulatory Authority of India (TRAI) in January 1997. Further, learning from its past policy the Government also formulated a new National Telecom Policy in 1999. The distinct objective of this Policy was universal availability of basic telecom services to all villages. The Policy specifically attached obligation with the service by requiring the incumbent operator to oblige with the USO and provide access to all people to the

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9 http://www.ictregulationtoolkit.org/en/PracticeNote.aspx?id=3142
10 http://www.usof.gov.in/usof-cms/home.jsp
11 http://www.usf.org.pk/
13 Aims and Objectives of National Telecom Policy 1994
14 Para 2 sub-clause b of National Telecom Policy 1994
15 Para 1.2 of National Telecom Policy 1999
18 Preface to the National Telecom Policy 1999.
basic telecom services at affordable and reasonable prices. A provision was made for these service providers to be reimbursed from the funds from the universal access levy for implementation of USO.19

**3.1. Definition and Implementation of Universal Service Obligation in telecommunication sector**

To give effect to the USO in the telecom sector a set of guidelines were issued by the Department of Telecommunications (DoT) where for implementation of USO, a fund had to be created by “Universal Service Levy” (USL) which is also interchangeably used with the term “Universal access levy”. USL or Universal access levy is a percentage of the revenue earned by all the operators under various licenses. The guidelines further provided that in case the obligation of universal service increases, the percentage of contribution to USL could also be raised.20 In accordance with the abovementioned DoT guidelines, the Indian Telegraph Act 1885, was also amended in 2003, (Indian Telegraph (Amendment) Act, 2003) (Telegraph Act), giving statutory status to USO and Universal Service Obligation Fund (USOF) in the telecommunication sector.

The Telegraph Act defines USO to mean “the obligation to provide access to basic telegraph services”.21 It further provides for establishment of a fund to meet the USO objective by providing access to telegraph services to people in the rural and remote areas at affordable and reasonable prices. It further, defines “Fund” to mean “the Universal Service Obligation Fund established under Section 9A (1)” of the Telegraph Act.22

This fund would be financed through the sum paid by the prospective licensee for the grant of a license that would include certain sum attributable to the USO fund. The attributed sum would be determined by the Central Government after consultation with Telecom Regulatory Authority.23

For the implementing the USO activities the DoT entered into Agreements with M/s BSNL and Private Operators. Through the agreement the telecom operators carried out various initiatives such as installed, operation & maintenance of Village Public Telephones, Rural community phone and Rural Household Direct Exchange Lines installation, broadband connectivity to villages in a phased manner, creation of general infrastructure and induction of new technological development in rural and remote areas for development of telecommunication facilities.24

So, what is clear from the above is that the concept of USO and rural access to such essential service sector is not new and has been successfully implemented and there is no reason why other essential service sectors like electricity should not follow suit.

**4. Ushering USO concept in rural electrification**

Before examining the relevance and the challenges in implementing USO in the sector of rural energy it is imperative to understand in brief the legal framework within which the electricity sector operates especially in rural India.

**4.1. Understanding electricity sector and legislation**

The structure of electricity sector derives its character and composition from our Constitution. Electricity is a concurrent subject, implying that both the Parliament and the State Legislature have the authority to enact law on it.26 The Ministry of Power (MoP), Government of India, is responsible for administration of Electricity Laws.

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19 Para 6 of the National Telecom Policy 1999.
20 http://ccamaharashtra.gov.in/HTMLDOCS/Letters/usos2.htm
21 Section 3 (1A) of Indian Telegraph (Amendment) Act 2003
22 Section 3 (1) of Indian Telegraph (Amendment) Act 2003.
23 Explanation to sub section (1) of Section 4 of Indian Telegraph (Amendment) Act 2003. Part IIA of the Telegraph Act deals with USO in detail.
24 http://usof.gov.in/usof-cms/usof_Implementation_status.htm
25 Entry 38, List III (Concurrent List) of the Seventh Schedule to the Constitution.
It is also notifies National Electricity Policy and the National Tariff Policy under the Electricity Act.26

The Electricity Act 1887, was the first legislation regulating the generation, supply and use of electricity in India. That was repealed and replaced by the Indian Electricity Act 1903, which later got replaced by the Indian Electricity Act 1910, (1910 Act). The 1910 Act comprehensively laid down the basic legal framework for the electricity sector whose main concept was the “supply of energy”. The 1910 Act, laid the foundation of subsequent Electricity Supply laws in India.

After independence, it became apparent that if the benefits of electricity are to be extended to peri-urban and rural areas, regional coordination was necessary. In order to achieve that and to address the electricity sector comprehensively, the Electricity (Supply) Act, 1948 was enacted27 where the States were vested with the power to create State Electricity Boards (SEBs).28 The SEBs were to supply electricity in the State as a whole by establishment of the “Grid System”. The SEBs were bundled utilities dealing with generation of electricity, developing the transmission and distribution network as well as engaged in distribution and retail sale of electricity or servicing the retail consumers. The SEBs undertook growth and expansion of electricity supply by utilising funds allocated in successive Five Year Plans.29 The SEBs also has the power to frame their own charges / schedule of tariff to be recovered from the consumers at large. SEBs were thus constituted to generate, supply, transmit and distribute electricity in the most efficient and economical way in the State with specific focus on those areas which are not supplied or not adequately supplied with electricity.30 Most significantly the Central Electricity Authority31 was also created to provide assistance and to advice SEB on technical issues.

Subsequently, the Government incorporated the Rural Electrification Corporation Limited (REC) in the year 1969, to provide for loan assistance to SEBs, State Government Departments and Rural Electric Cooperatives for rural electrification projects.32 The 5th Five Year Plan identified rural electrification as basic need of the people and launched the Minimum Needs Programme.33 In 1974, the Minimum Needs Programme was launched aimed at enhancing access of electricity services to rural areas. All programmes since the Minimum Needs Programme have had the objective of achieving universal access. Kutir Jyoti Scheme (1988-89) was one of early schemes of government for rural electrification.

Starting from 1995, various States also took up un-bundling of the SEBs and introducing privatisation and competition in the electricity sector. Around the same time, the right to electricity was also interpreted as a fundamental right under Article 21 of the Constitution.34

However, since the functioning of the SEBs was extremely poor and involved high political interference, the Electricity Regulatory Commissions Act, 1998 was enacted to set up independent Regulatory Commissions to deal with regulation of electricity tariff and related issues. Under the Electricity Regulatory Commissions Act, 1998 the Central Government also created the Central Electricity Regulatory Commission (CERC)35 and similarly the
State Government was empowered to constitute the State Electricity Regulatory Commission (SERC). It also gave power to the SERCs to create State Advisory Committee to advice them on various issues such as policy, licenses, protection of consumer rights, quality and supply.

The Regulatory Commissions were conferred with a wide and independent statutory jurisdiction. Post 2000, the Pradhan Mantri Gramodaya Yojana (2000-01) was launched by the Union Government.

However as far as legal development is concerned in 2001, the Electricity Bill amongst other things, proposed stand alone systems for generation and distribution for rural; remote areas and decentralised management of distribution through panchayats, user’s associations, co-operatives or franchisees for rural areas and establishment of Appellate Tribunal for disposal of appeals against the decision of CERC and SERC. The Electricity Bill of 2001 was passed by both the Houses of the Parliament and received the assent of President of India in 2003. Thus, the Electricity Act of 2003 (“Act of 2003”) was enacted. With the enactment Act of 2003, the three earlier Acts, Act of 1910, Act of 1948 and Act of 1998 stood repealed. The above provisions on “stand alone systems for generation and distribution for rural; remote areas and decentralised management of distribution through panchayats, user’s associations, co-operatives or franchisees for rural areas” were retained in the Act. The Act further strengthens the case for rural electricity access by making it incumbent on the State and the Centre Governments to jointly endeavour for providing electricity to villages and hamlets.

Subsequently, the Electricity (Amendment) Act 2003 was enacted providing amendments to some of the provisions of the Act of 2003. Thereafter, some provisions of the Act of 2003 were amended in 2007 through Electricity (Amendment) Act 2007. The Act of 2003, as amended from time to time is the present legislation governing the electricity sector in India.

The Electricity Act 2003, among other things, was also enacted with the goal of electrifying all the villages by 2007 and all the households by 2012. Under the mandate of the Electricity Act 2003, the Central Government notified the Rural Electrification Policy in 2006. The State Governments were required to prepare and notify a Rural Electrification Plan to achieve the goal of electricity access to all households. The said electrification plan has still not been enacted by any of the States. The Rural Electrification Policy also required every State Government to notify “rural areas” in their respective States within 2 months of its notification. However, only 16 states till date have notified what constitutes “rural areas” in their respective states.

Further, in 2004 and 2005 the Government launched the Accelerated Rural Electrification (2004) of one lakh villages and one Crore households and Rajiv Gandhi Gramin Vidyutikaran Yojana (2005) with the objective of 100% electrification of villages and electricity access to all households. However, even the said policy did not meet its objective. Perhaps from the perspective of this study the most significant aspect is that the Electricity Act, 2003 also contains the concept the USO which has been discussed in detail hereunder.
5. Rural Electrification: An important tool for socio-economic development of rural areas

Before the concept of the USO in the rural context is explored further the Rural Electrification sector and its significance needs to be understood in a little detail. Foremost is the need to understand as to what constitutes a village to be electrified. The term electrification as such has not been defined in any of the statutes. However, the Ministry of Power in 2004-2005 defined electrified village as under:

“A village would be declared as electrified if

i. Basic infrastructure such as Distribution Transformer and Distribution lines are provided in the inhabited locality as well as the Dalit Basti/ hamlet where it exists. (For electrification through Non-Conventional Energy Sources a Distribution transformer may not be necessary).

ii. Electricity is provided to public places like Schools, Panchayat Office, Health Centres, Dispensaries, Community centers etc. and

iii. The number of households electrified should be at least 10% of the total number of households in the village.”

Further, Rural Electrification involves supply of energy for two types of programmes:

i. Production oriented activities such as minor irrigation, rural industries etc.;

ii. Electrification of villages.

5.1. Genesis of rural electrification

It must be emphasised that Rural Electrification (RE) has been in the focus of policy makers for the past several decades. As stated earlier, with the aim to finance and promote rural electrification the Government incorporated the Rural Electrification Corporation Limited (“REC”) in 1969. The Ministry of Power, through Power Finance Corporation Limited (“PFC”), sponsored the “Delivery Through Decentralised Management” scheme with the objective of setting forth a participatory model of excellence in distribution, especially in rural areas, taking into consideration the rural needs and requirements. As indicated earlier, in 1974, the Minimum Needs Programme was launched aimed at enhancing access of electricity services to rural areas. All programmes since the Minimum Needs Programme have had the objective of achieving universal access. The Kutir Jyoti Programme launched in 1988-89 aimed at improving the quality of life of the poorest of the poor and covered the extension of a single point connection to “Below Poverty Line” households in the rural India. The Pradhan Mantri Gramodaya Yojana launched in 2000-01, added rural electrification component in 2001-02. In 2003-04, the Accelerated Rural electrification programme was launched. Soon in 2004, the said programme and Kutir Jyoti programme were merged in 2004 to form Accelerated Electrification of One lakh Villages and one Crore Households. In 2005, all the then ongoing schemes on rural electrification were merged into Rajiv Gandhi Grameen Vidyuti Karan Yojana (RGGVY). Through RGGVY, the Government’s intent was to do away with the piece meal approach and target the lowest possible denominator, the rural household. For a detailed review of the past Rural Electrification Program [See Annex 1.]

51 http://powermin.nic.in/rural_electrification/definition_village_electrification.htm
52 http://www.powermin.nic.in/rural_electrification/main.htm
53 http://recindia.nic.in/index.html

The RGGVY is a comprehensive scheme that primarily attempts to give effect to the National Electricity Policy, 2005. The “Rajiv Gandhi Grameen Vidyutikaran Yojana” has a requirement of Rs 160 billion of which Rs 50 billion has been provided for Tenth Plan to cover 50,000 villages. The scheme was implemented through the REC. This scheme merges the MNP for rural electrification, and scheme of Accelerated Electrification of One lakh villages and one Crore households55.

The Rural Electrification Policy too recognises it as a flagship program for rural electrification. It categorically states that the under the Scheme for Rural Electricity Infrastructure & Household Electrification i.e. RGGVY, the Central Government has reviewed the existing schemes of rural Electrification recently and has launched a comprehensive programme RGGVY. Under the scheme, projects could be financed with 90% capital subsidy for provision of several significant measures such as Rural Electricity Distribution Backbone (REDB), provision of 33/11 KV (or 66/11 KV) sub-stations of adequate capacity and lines in blocks where these do not exist. It Further mandates the creation of Village Electrification Infrastructure (VEI). It further focuses on electrification of un-electrified villages as well as electrification of un-electrified habitations. Then there are provisions of distribution transformers of appropriate capacity in electrified villages/ habitation(s). Further it also focuses on Decentralised Distributed Generation (DDG) and Supply as well as decentralised generation cum-distribution from conventional sources for villages where grid connectivity is either not feasible or not cost effective provided it is not covered under the programme of Ministry of New and Renewable Energy (MNRE) formerly known as Ministry of Non-conventional Energy Sources under their Remote Village Electrification Programme (RVEP). It emphasises that the REDB, VEI and DDG would also cater to the requirement of agriculture and other activities including irrigation pump sets, small and medium industries khadi and village industries, cold chains, healthcare, education and IT.

This would facilitate overall rural development, employment generation and poverty alleviation. A special emphasis has been given in this program for Rural Household Electrification of Below Poverty Line Households: It states that electrification of un-electrified Below Poverty Line (BPL) households would be financed with 100% capital subsidy as per norms of Kutir Jyoti Programme in all rural habitations. Households above poverty line would be paying for their connections at prescribed connection charges and no subsidy would be available for this purpose56.

7. Challenges of the so far implemented rural electrification schemes

While the Policy prescriptions prior to the launch of RGGVY in 2005 may have been in the right direction, the field realities and their assessments seem to suggest a rather dismal picture. Thus for example according to study undertaken by Ernst & Young for the Forum of Indian Regulators, the shortcomings in the proper implementation of the past rural electrification schemes was the major factor in them not able to achieve their aim in entirety. According to the study, the following were the primary reasons for the limited impact of the earlier Rural Electrification schemes:

- The village electrification was left to the State Electricity Boards, which were in bad financial health and not in a position to provide sufficient funds.
- The task of maintenance of rural electricity infrastructure was with the State Utilities which did not have the necessary manpower in the rural areas; as a result substantial infrastructure became useless. Neglect of revenue sustainability of the additional electrification infrastructure for the rural areas made the SEBs reluctant to take up rural electrification as it led to more losses. The programmes were not implemented on a top priority basis.
- The funds were released by centre to the states and in turn to the implementing agencies and in many cases the funds would not reach in time

56 See para 4 of REP
Thus, there was a need of a more comprehensive scheme that would address all the issues viz. development of rural electrification infrastructure in rural areas, increase the viability of rural electricity infrastructure by covering all BPL families, set up a uniform village infrastructure at block level to cater to non domestic demand of power etc. Hence, as stated earlier, all the schemes were merged to establish the current RGGVY.

Further, the SEB model itself was not very successful in the country. The Statement of Objects and Reasons to the Electricity Act, 2003 recognises this is the following words -

"Over a period of time, however, the performance of SEBs has deteriorated substantially on account of various factors. For instance, though power to fix tariffs vests with the State Electricity Boards, they have generally been unable to take decisions on tariffs in a professional and independent manner and tariff determination in practice has been done by the State Governments. Cross subsidies have reached unsustainable levels. To address this issue and to provide for distancing of government from determination of tariffs, the Electricity Regulatory Commissions Act was enacted in 1998. It created the Central Electricity Regulatory Commission and has an enabling provision through which the State Governments can create a State Electricity Regulatory Commission. 16 States have so far notified/created State Electricity Regulatory Commissions either under the Central Act or under their own Reform Acts."

Since the charges / tariffs for electricity could not be competitively fixed and were not cost reflective, even though the SEB would take up the capital expenditure programmes other than those funded by grants, it would be impossible to recover the charges for the same from the consumers.

### 8. Policy Initiatives to Promote Universal Access to Electricity in Rural Electrification

From the past rural electrification schemes it is clear that there is not only a need of a more comprehensive scheme that would address all the issues viz. development of rural electrification infrastructure in rural areas, increase the viability of rural electricity infrastructure by covering all BPL families, set up a uniform village infrastructure at block level to cater to non domestic demand of power etc, but make it a statutory obligation to do the same. Such an obligation finds strength in the Electricity Act, 2003 (Act of 2003) which provides for universal access to electricity and casts an obligation for the appropriate Government to supply electricity.

With the goal of electrifying all the villages by 2007 and all the households by 2012, the Act of 2003 accorded renewed priority to rural electrification and provision of electricity services. It gave the much needed thrust to complete the rural electrification and provide for management of rural distribution by Panchayats (local self-governing bodies), co-operative societies, non-Government organisations, franchisees, etc.

The Act of 2003 mandates the Central Government to prepare a National Policy for rural areas with special focus on encouraging stand-alone-systems and renewable and non-conventional energy sources. Further, the Act of 2003 provides that a person undertaking distribution generation in a rural area specified (“notified”) by the State Government would not require a licence. The said provisions provide an alternative mode of supply to far-flung areas where grid connectivity cannot be extended. It further envisages decentralized (“local”) distribution of power (bulk purchase and management of local distribution) in the rural areas through organizations like local authority, Panchayat Institutions, users’ association, co-operative societies, non-governmental organizations, etc.

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58 Para 1.3 of the Statement of Objections and Reasons
60 Section 4.5 and 6 of Electricity Act, 2003.
61 Section 2 (63) of Electricity Act, 20013 defines stand-alone-systems as: “Stand alone system is an electricity system setup to generate power and distribute electricity in a specified area without connection to the grid system.”
63 Proviso 8 to Section 14 of Electricity Act, 2003.
franchisees and encourages the local distribution by granting of exemption from the requirement of licensing to these organizations.

The Act of 2003 further provides an impetus to the envisaged policy on rural electrification and casts a joint responsibility on the State Government and Central Government to supply electricity to all areas including villages and hamlets.

Most importantly, the obligation on the licensee to supply electricity on requisition, under the Act of 2003, has been interpreted to cast Universal Service Obligation on the licensee. Under the mandate of Act of 2003, of formulating a national policy on electricity, the Central Government in consultation with the State Governments prepared the National Electricity Policy, 2005 (“NEP”).

8.1. The National Electricity Policy 2005: No dearth of Policy mandate

Although a policy should precede a legislation, the NEP was formulated in 2005 two years after the Electricity Act was enacted. Most significantly, the Government of India under the National Electricity Policy took a decision to electrify all villages and provide accessibility to all households in rural areas over a period of four years. The National Electricity Policy among other things states as under with respect to Rural Electrification – “Supply of electricity at reasonable rate to rural India is essential for its overall development.” The Policy also recognises that as per Census 2001, about 44% of the households do not have access to electricity. Hence meeting the target of providing universal access is a daunting task requiring significant addition to generation capacity and expansion of the transmission and distribution network. One of the key issues that the Policy addresses is Rural Electrification.

The Policy emphasises Rural Electrification separately and recognises that the key development objective of the power sector is supply of electricity to all areas including rural areas as mandated in section 6 of the Electricity Act. About 56% of rural households have not yet been electrified even though many of these households are willing to pay for electricity. Determined efforts should be made to ensure that the task of rural electrification for securing electricity access to all households and also ensuring that electricity reaches poor and marginal sections of the society at reasonable rates is completed within the next five years. A Reliable rural electrification system will aim at creating the following:

(a) Rural Electrification Distribution Backbone (REDB) with at least one 33/11 kv (or 66/11 kv) substation in every Block and more if required as per load, networked and connected appropriately to the state transmission system

(b) Emanating from REDB would be supply feeders and one distribution transformer at least in every village settlement.

(c) Household Electrification from distribution transformer to connect every household on demand.

(d) Wherever above is not feasible (it is neither cost effective nor the optimal solution to provide grid connectivity) decentralized distributed generation facilities together with local distribution network would be provided so that every household gets access to electricity. This would be done either through conventional or non-conventional methods of electricity generation whichever is more suitable and economical. Non-conventional sources of energy could be utilized even where grid connectivity exists provided it is found to be cost effective.

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64 Section 5 of Electricity Act, 2003
65 Section 13 of Electricity Act, 2003
66 Section 6 of Electricity Act, 2003
67 Appellate Tribunal for Electricity’s decision dated 06th April, 2011 in M/s NOIDA Power Company Limited V. Paschimanchal Vidyut Vitran Nigam Ltd & Ors.
68 Section 3 of Electricity Act 2003
69 http://powermin.nic.in/whats_new/national_electricity_policy.htm
70 Para 1.3. of the Policy
Similarly, development of infrastructure would also cater for requirement of agriculture & other economic activities including irrigation pump sets, small and medium industries, khadi and village industries, cold chain and social services like health and education.  

Further particular attention would be given in household electrification to dalit bastis, tribal areas and other weaker sections.

In addition, Rural Electrification Corporation of India will be the nodal agency at Central Government level to implement the programme for achieving the goal set by National Common Minimum Programme of giving access to electricity to all the households in next five years. Its role is being suitably enlarged to ensure timely implementation of rural electrification projects. The Policy also emphasises that the targeted expansion in access to electricity for rural households in the desired timeframe can be achieved if the distribution licensees recover at least the cost of electricity and related O&M expenses from consumers, except for lifeline support to households below the poverty line who would need to be adequately subsidized. Subsidies should be properly targeted at the intended beneficiaries in the most efficient manner. Government recognizes the need for providing necessary capital subsidy and soft long-term debt finances for investment in rural electrification as this would reduce the cost of supply in rural areas. Adequate funds would need to be made available for the same through the Plan process. Also commensurate organizational support would need to be created for timely implementation. The Central Government would assist the State Governments in achieving this.

The Policy further emphasises the need for rural electrification infrastructure and states that necessary institutional framework would need to be put in place not only to ensure creation of rural electrification infrastructure but also to operate and maintain supply system for securing reliable power supply to consumers. Responsibility of operation & maintenance and cost recovery could be discharged by utilities through appropriate arrangements with panchayats, local authorities, NGOs and other franchisees etc.

It is obvious and also highlighted by the Policy that the gigantic task of rural electrification requires appropriate cooperation among various agencies of the State Governments, Central Government and participation of the community. Education and awareness programmes would be essential for creating demand for electricity and for achieving the objective of effective community participation.

The NEP lays that the development objective of the power sector is to supply electricity to all areas. It also states a need to ensure electricity access to all households and that the electricity reaches the poor and marginal sections of the society at reasonable rates within the next five years of coming into force of the policy. NEP specifically lays down the approach for developing the rural electrification distribution base and village electrification to achieve the target of complete electrification of all households within next five years of the NEP coming into force. For achieving the said target the NEP extends capital subsidy to States for rural electrification with REC as the nodal agency at the Central level. The NEP and its emphasis have been described in detail in the section on RGGVY.

8.2. The Rural Electrification Policy: A big push for rural electrification

Further, under the Act of 2003’s, mandate of formulating electricity policy exclusively for the rural areas, the Government formulated the Rural Electrification Policy (“REP”), 2006.
The Goals of the REP is to provide access to electricity to all households by year 2009; Quality and reliable power supply at reasonable rates and minimum lifeline consumption of 1 unit per household per day as a merit good by year 2012\(^8\).

Among other things the REP mandates a comprehensive approach to Rural Electrification where both grid and off grid would be encouraged\(^9\). In fact it states that for villages/habitations, where grid connectivity would not be feasible or not cost effective, off-grid solutions based on stand-alone systems may be taken up for supply of electricity so that every household gets access to electricity\(^9\).

**Who is responsible?**

The REP makes each level of governance responsible to bring about the electrification of the rural and far-flung areas. It casts a joint responsibility on the Central Government and the State Governments to endeavour to achieve the objective of power supply to all areas including rural area as mandated\(^8\) in Act of 2003\(^9\). At the State level, the State Government is required to take steps to bring awareness on electricity related issues including generation, distribution, energy conservation and energy efficiency and energy-water nexus among elected Panchayat representatives\(^8\). Further, as pointed out earlier, it mandates the State Governments to notify rural areas within 2 months of the notification of the REP for the purposes of grant of license for distribution of electricity in the rural areas\(^8\). At the district level it mandates the District Committee to facilitate rural electrification projects through stand-alone systems and grid extension and local management projects.\(^8\) The District Committees are further required to coordinate and review the extension of electrification in the district, review the quality of power supply and consumer satisfaction and promote energy efficiency and conservation. At the base level the Panchayati Raj Institutions are empowered with the supervisory/ advisory role with the scope of further expansion of its role and responsibilities in rural electrification scheme\(^8\).

**Decentralised Distributed Generation**

The REP further envisages a decentralised distributed generation facilities together with local distribution network\(^8\). This would be in accordance with a Rural Electrification Plan to achieve the goal of providing access to all households. The said Rural Electrification Plan should map and detail the electrification delivery mechanisms (grid or stand alone) considering inter alia the available technologies, environmental norms, fuel availability, number of un-electrified households, distance from the existing grid etc. The Plan may also be linked to and integrated with District Development Plans\(^8\).

**Nodal Agency and Coordination : REC**

The Policy envisions that the Rural Electrification Corporation Limited (REC), a Government of India enterprise under the Ministry of Power, shall be the nodal agency at Central Government level to implement the rural electrification programme. REC would also provide loan assistance for projects of rural electrification. REC apart from its role as financial institutions would have the prime responsibility of coordinating the rural electrification programme with

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81 Para 2.1. of REP  
82 Para 3.1 of REP  
83 Para 3.2 of REP  
84 Section 6 of Electricity Act, 2003 states that rural electrification is the joint responsibility of the Central Government and the State Government.  
85 Para 1.5 of REP  
86 Para 6.5 of REP  
87 Para 8.2 of REP  
88 Para 6.4 of REP  
89 Para 6.3 of REP  
90 Para 3.3 of REP  
91 Para 3.4 of REP
the State Governments, State Utilities and other concerned agencies for effective implementation of schemes. Further, the Ministry of Power will put in place a coordination mechanism between the agencies / Ministries implementing various schemes to ensure that the villages are selected for coverage in different schemes in a manner so as to ensure the attainment of the objectives of this Policy. Similarly, the Ministry of Panchayati Raj would also be associated with this coordination mechanism. In this context the definition of Electrified Village, has been discussed in detail. A mechanism where among other things certification by Panchayat body has to be put in place and it also describes in detail as to what shall constitute an “electrified village” by denoting the extent of electrification.

**Local Community in Rural Electrification**

The Policy further envisages the involvement of Local Community in Rural Electrification. At the institutional level it mandates that a District Committee be constituted for coordination. It further focuses that participation of women in meeting rural energy needs is essential. The Panchayati Raj Institutions would have a supervisory/ advisory role in rural electrification and electricity supply. The Policy also provides for financial assistance for Rural Electrification Projects.

**Stand Alone Systems for Rural Areas**

Significantly, there are policy provisions for Permitting Stand Alone Systems for Rural Areas where the policy encourages the potential for local resource based decentralized generation with a focus on biomass based energy systems.

The Policy also envisages special enabling dispensation would be put in place for standalone systems of upto 1 MW where it envisages automatic approval for land use change for area as per norms, pollution clearance if technology is proven to be within laid down norms and safety clearances on the basis of self certification conveyed to concerned authorities (such certification making the developer fully liable for any breach of safety regulations).

Among other things the policy also provides for Bulk Power Purchase and Management of Local Distribution in Rural Areas.

**Universal Service Obligation**

Most significantly and especially in the context of the current program, the Policy specifically provides for “Universal Service Obligation” where it states: “Where local distribution, including activities of grid extension and undertaking of capital expenditure programs, has been handed over to users’ association, co-operative society, panchayat Institutions or non- Government organization, such persons will have the universal service obligation for the area of their operation and the supply obligation of the licensee, if any, in that area, would be residual i.e. taking timely action to ensure supply in case franchisee fails to discharge their contractual Obligations”. It is still not clear why such a provision has not been extended to the distribution licensee/utility too which is one of the critical challenges.

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92 Para 4.2. of REP
93 Para 4.3. of REP
94 Para 5 of REP
95 Para 6 of REP
96 Para 7 of REP
97 Para 8 of REP
98 Para 8.8. of REP
99 Para 9 of REP
100 Para 9.17
of this program. Although section 43 of the Act of 2003 imposes a duty on distribution licensee to supply electricity within one month after the receipt of application for the same. However, this duty under section 43 is interpreted by the courts to cast a universal service obligation on the distribution licensee\(^{101}\).

**Notified rural areas and USO:** As noted earlier, the REP mandates the State Governments to notify rural areas within 2 months of the notification of the REP for the purposes of grant of license for distribution of electricity in the rural areas\(^{102}\). Rural areas need to be notified for the purposes of exemption of grant of license for distribution of electricity in these areas and this is specifically relevant for stand alone systems. Further, where rural areas are notified, for the purpose of proviso 8 to section 14 of the Electricity Act, a person who intends to generate and distribute electricity in a rural area is exempted from obtaining a licence for doing so\(^{103}\).

Further, rural areas whether notified or not are also covered by USO of distribution licensee which fall within the area for which distribution licence has been granted. The relevant para of REP w.r.t. the aforesaid is as under:

> “8.3. Notwithstanding the notification of rural areas for the purpose of Section 14 of the Act, the obligations to endeavour to supply electricity to all areas including villages and hamlets under Section 6 of the Act and the universal service obligations of the distribution licensee in his license area under Section 43 shall remain.”

However, from the above it may be interpreted that the rural areas which do not fall under any distribution licensee need to be necessarily notified for it to be electrified. This is especially true for standalone systems.

Interestingly, the REP though aims at and views rural electrification as the key for accelerating rural development\(^{104}\) it falls short on addressing the quality, reliability and equality (equity) of power service in as much as stating that consumers, particularly those who are ready to pay a tariff which reflects efficient costs have the right to get uninterrupted 24 hours supply of quality power\(^{105}\).

However, the NEP aims at supply of reliable and quality power of specified standards in an efficient manner and at reasonable rates\(^{106}\), in the country as whole. Since, the two polices i.e. NEP and REP are complementary the provisions of NEP can be extended to REP to imply supply of the specified standards.

9. **Various scenarios that can be tapped for effecting rural electrification process**

The underlying USO concept explained above is traceable in the aims of REP but quantification has to be undertaken and benchmarks have to be developed. It is clear that to ensure and mandate the states to provide rural energy access, the provisions of Electricity Act and the use of them in appropriate forums both judicial and otherwise would be necessary. Let us examine the various scenarios and opportunities to enforce the mandate of USO for rural energy access.

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101 Citation...
102 Para 8.2 of REP.
103 “Grant of Licence: ……Provided also that where a person intends to generate and distribute electricity in a rural area to be notified by the State Government, such person shall not require any licence for such generation and distribution of electricity………”
104 Para 1.4 of REP
105 Para 1.3 of REP
106 Para 2 of NEP 2005.
9.1. Remedies under Electricity Act 2003

To map the various scenarios that are available it is important to understand the hierarchical framework of complaint redressal mechanism under the Electricity Act 2003.

Under Section 43 of Act of 2003, any person who is a rightful owner or occupier of a premise can make an application to the Distribution Licensee for the supply of electricity. The section casts an obligation on the licensee to provide supply of electricity on the requisition within one month of making such requisition.

The proviso of the section takes into consideration that in case of a village or hamlet or area wherein no provision for supply of electricity exists, the Appropriate Commission may extend the period of one month, as it may consider necessary for electrification of that village or hamlet.

In terms of Section 53 read with Section 50 of the Electricity Act, 2003, most of the Regulatory Commissions have also framed the Distribution / Supply Code containing detailed provisions on the manner of implementation of the USO. A violation of the Statutory Code / Regulation can also lead to proceedings under Section 142 of the Electricity Act, 2003.

In case the licensee fails to supply the electricity within the specified period he shall be liable to penalty to the extent of one thousand rupees for each day of default.

To adjudicate upon the matter of failure to comply with the provisions of Section 43, Appropriate Commission has to appoint one of its members as adjudicating officer.

The Hon’ble Supreme Court has held that the duty of the licensee under section 43 of the Act of 2003 to be a statutory obligation/liability to supply electricity. However, this obligation to supply electricity to the consumer does not arise until distribution mains have been laid in that area.

The courts have also interpreted the obligation under the Electricity Act 2003, to be casting Universal Service Obligation and a mandate on the distribution licensee to supply electricity to the premises within a specified time on an application made by the owner or occupier of the premise on the licensee to provide electricity on requisition. However, certain safeguards have also been put to ensure that the demands are from lawful occupiers. Thus for example it has been held that to get the connection under this section the occupier of the premises must

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107 Section 43(1) and proviso to Section 43(1) of Electricity Act, 2003.
108 Section 43(3) of Electricity Act, 2003.
110 Punjab SEB V. Zora Singh AIR 2006 SC 182.
be a lawful occupier, not a trespasser or an unlawful occupier\(^\text{113}\); he has to also establish that he is in actual physical possession of the portion of the premises and that he lawfully entered into that by approaching appropriate forum\(^\text{114}\). In absence of any proof that a person is in lawful occupation of a premises, he has no right to demand electricity connection\(^\text{115}\). A trespasser can never be considered to be the owner and cannot give the required consent\(^\text{116}\).

It may be noted that it has been held that a licensee can refuse a new connection if he can prove that the nearest distribution mains are already overloaded up to the full current capacity or there is a likelihood of loss of pressure in the supply which will seriously affect supply to other consumers in the vicinity\(^\text{117}\). This is due to the technical constraints. Though in the recent years with the capital expenditure programme of the licensees being approved by the Commissions on a regular basis and such capital expenditure being serviced through tariff, the argument may not hold good.

If any person fails to comply with the provisions of Section 43, the Appropriate Commission has power to impose penalty on any person for contravening any of the provisions of the Act or the rules/ regulations made under it or any direction of the Commission. The penalty imposed shall not exceed one lakh rupees for each contravention and in case of a continuing failure with an additional penalty up to six thousand rupees for every day during which the failure continues after contravention of the first direction\(^\text{118}\).

The respective Appropriate Commission with respect to the six sample states are as under:

<table>
<thead>
<tr>
<th>State</th>
<th>Appropriate Commission</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jharkhand</td>
<td>Jharkhand State Electricity Regulatory Commission(^\text{121})</td>
</tr>
<tr>
<td>Bihar</td>
<td>Bihar Electricity Regulatory Commission(^\text{122})</td>
</tr>
<tr>
<td>Uttar Pradesh</td>
<td>Uttar Pradesh Electricity Regulatory Commission(^\text{123})</td>
</tr>
<tr>
<td>Orissa</td>
<td>Orissa Electricity Regulatory Commission(^\text{124})</td>
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<tr>
<td>West Bengal</td>
<td>West Bengal Electricity Regulatory Commission(^\text{125})</td>
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<tr>
<td>Nagaland</td>
<td>Nagaland Electricity Regulatory Commission(^\text{126})</td>
</tr>
</tbody>
</table>

Under Section 111, an appeal against the order of adjudicating officer or the Appropriate Commission lies before the Appellate Tribunal for Electricity\(^\text{127}\). The appeal must be made within 45 days of receiving the copy of the order of the adjudicating officer or Appropriate Commission\(^\text{128}\). The Appellate Tribunal is under the obligation to dispose of the appeal within 180 days and in case of failure to do so, has to record in writing the reasons for not disposing of the appeal within the said period\(^\text{129}\).

Under Section 125, an appeal against the order of the Appellate Tribunal for Electricity lies before the Hon’ble Supreme Court only on substantial questions of law. The appeal has to be made within 60 days of receiving the copy of the order of the Appellate Tribunal for Electricity.

113 Gyananendranath Shil V. Superintending Engineer AIR 2008 Cal 19.
114 Amarendra Singh V. CESC Ltd. AIR 2007 Cal. 108
115 Surajbali Pandey & Co. V. CESC Ltd. 1995(1) CHN 533.
116 Mir Askar Hussain V. Tamil Nadu Electricity Board 1996 AIHC 2683(Mad.)
117 Munital V. Nasik Deolali Electric Supply Co. AIR 1952 Bom 33
118 Sections 142 and 143 of Electricity Act, 2003
119 http://jserc.org/
120 http://www.berc.co.in/
121 http://www.uperc.org/Default2.aspx
122 http://www.orierc.org/
123 http://www.wberc.org/
124 http://www.nerc.org.in/
126 Sub-section 2 of Section 111 of Electricity Act 2003
127 Proviso to Sub-section 5 and sub-section 5 of Section 111 of Electricity Act 2003
9.2. Original Writ Jurisdiction of High Court

The State Electricity Board has been defined by the Hon’ble Supreme Court as State within the meaning of Article 12 of the Constitution and therefore is subject to writ jurisdiction of the High Courts\(^{128}\). This simply means that the High Courts may be petitioned to bring on board the larger issue of energy access where in a case can be made out of right to energy (including electricity) as a fundamental right. The fact that the State Electricity Boards are instrumentality of the “state”, a fundamental right argument to access energy can also be made in the High Courts under the Writ Jurisdiction where we could pray to the court to issue a writ of mandamus to the State to perform their obligation of providing energy to the rural areas.

9.3. Supreme Court under Article 32 as right to electricity defined under Articles 19 and 21 of the Constitution

The right to shelter includes electricity which is essential service to shelter under Article 19 and 21 of the Constitution\(^ {129}\). As electricity is the essential element of the modern day society the courts have interpreted the right to electricity to also mean right to life and liberty in term of Art. 21 of the Constitution\(^ {130}\). This again provides another forum (the highest available in the country) by way of enforcing a fundamental right where right to shelter has been held to include right to electricity as state earlier. The invoking of Supreme Court at an early stage may be double edged. It is often invoked for a larger national issue which impacts more than two states or public at large. It may either snow ball to a national campaign and visibility and if dismissed then the highest forum is lost. So in the current context, it may be advisable to avoid this strategy in the first instance.

9.4. Appellate Tribunal for Electricity has power to issue directions to Appropriate Commission

Under Section 121, the Appellate Tribunal for Electricity has the power to issue orders, instructions or directions to the Regulatory Commissions for the performance of their statutory functions under the Act of 2003. Such instructions, orders or directions would be issued only after hearing the Regulatory Commissions or other interested party, if any. The Hon’ble Supreme Court in *PTC India Limited v CERC* (2010) 4 SCC 603 has held that only the Orders passed by the Regulatory Commissions can be challenged before the Appellate Tribunal for Electricity. Any challenge to a statutory regulation framed by the Commissions will have to be by way of a writ petition to the Hon’ble High Court. The power under Section 121 has been construed as not granting the power of judicial review on the Appellate Tribunal.

9.5. Forum of Regulators

Pursuant to Section 166(2) of Act of 2003, the Central Government constituted the Forum of Regulators in 2005 for smooth and co-ordinated development of the power sector\(^ {131}\). This could be another forum to raise the issues of rural energy access.

\(^{128}\) Rajasthan State Electricity Board V. Mohan Lal AIR 1967 SC 1857

\(^{129}\) Amarendra Singh V. CESC AIR 2008 Cal 66 (DB)

\(^{130}\) Moloy Kumar Acharya V. Chairman-cum-Managing Director, W.B. State Electricity Distribution Co. Ltd. AIR 2008 Cal 47 (B)

\(^{131}\) http://www.forumofregulators.gov.in/Default.aspx
9.6. Constitution of District level committees for holistic development

Section 166(5) of the Act of 2003, mandates the constitution of District level committees by the Appropriate Government to co-ordinate and review the extent of electrification of each district and to review the quality of power supply and consumer satisfaction.

9.7. Forum of Indian Regulators

The Forum of Indian Regulators (“FOIR”) is a society registered under the Societies Registration Act. FOIR provides a common platform for the electricity regulators across India to discuss, share and evolve various experiences/challenges/issues of the electricity sector.

The above three forums also need to be petitioned and asked as to what are the steps they have taken with regard to rural energy access. This would also create the necessary pressure through all forums available and hence needs to be petitioned accordingly.

10. Concluding Remarks and Moving forward

There has been substantial investment in the physical electricity infrastructure of the country since independence and many programmes aimed in the last decade for accelerating rural electrification. However most of these programs have focused on infrastructure investments but not on management, aimed at ambitious coverage targets but not on financing or creating incentives for sustainable maintenance of infrastructure stock; on triage of emergency measures and not on providing reliable services\textsuperscript{132}. In order to achieve 100% rural electrification we must try to address these inefficiencies & issues. A multi layered approach as mentioned under the head of “Various scenarios that can be tapped for effecting rural electrification process” and application of USO concept like telecom can address these shortcomings and make India realise the dream of 100% rural electrification.

The solution now will also have to be routed through the Regulatory Commissions, Appellate Tribunal and the Hon’ble Supreme Court by filing of appropriate petitions / proceedings since the direct control of implementation over the licensee is with the Regulatory Commission and the same can be incentivised by relation to annual distribution and retail supply tariffs. The rationale, the details of the strategies and the principles need to be worked out in detail as they would be context specific and state specific. But one thing is clear from the above, the time is ripe for actual action in statutory forums to provide energy (electricity) to the last village in India.

\textsuperscript{132} Rajkiran Bilolikar & Ravi Deshmukh; Rural Electrification in India – An overview; NPTI

Some of the key rural electrification programs initiated by the Government during the above period are mentioned below:

Minimum Needs Program (MNP)

Initiation - The MNP was initiated in the Fifth Five Year Plan (1974-79) and rural electrification was one of the components of the program.

Implementing Agency - The Centre issued funds to the States in the form of grants and loans. The implementation of the programme was aimed through the respective State Electricity Boards.

Scope of the program - The areas covered under MNP for the purposes of rural electrification were remote, far flung and difficult villages with low load potential. For identifying the beneficiaries and beneficiary areas, certain all India norms were taken as benchmarks at various points of time and the MNP assistance was directed to the population/area with low level of achievement below respective benchmark level.

Reason for limited impact - In the beginning, loans were made available at interest rates lower than the funds provided under the budgetary support for rural electrification by Government of India. However, over a period of time rate of interest charged under the MNP and the normal budgetary support became equal with the result that State Electricity Boards had to bear the burden of higher rate of interest for these uneconomical programmes.

No funds were released under the scheme from 2004-05 onwards in view of it being merged with the new scheme Rajiv Gandhi Grameen Vidyutikaran Yojana (RGGVY).

Kutir Jyoti Scheme

Initiation - This program was launched in 1988-89.

Implementing Agency - State Electricity Boards

Scope of the program - The objective of the program was extending single point light connections to households of rural poor families below the poverty line including Harijans and Adivasi families. In the Kutir Jyoti Yojana, the outlay used to be allocated amongst the states based on two indicators i.e. size of rural population below the poverty line and level of village electrification obtained in the state in a manner that higher weightage is given to states with larger population of rural poor and with low electrification level. Under this programme, one time cost of internal wiring and service connection charges was provided by way of 100% grant to the states.

Reason for limited impact - According to an evaluation study set up by Ministry of Power, one of the reasons for low willingness on the part of beneficiaries to go for this programme was unreliable and poor quality of supply in states like Uttar Pradesh and Bihar. It was found that because of these reasons beneficiary did not pay the bills as there was no use of the connection.
Pradhan Mantri Gramodaya Yojana (PMGY)

**Initiation** - This scheme was launched in 2000-01 but rural electrification component was added only in the next year i.e. 2001-02.

**Implementing Agency** – State Electricity Boards / Electricity Departments/ Power Utilities

**Scope of the program** - Funds were released by State Governments to the implementing agencies and funds under the programme were provided to the States as additional Central assistance which followed the normal pattern of central assistance i.e. 90% grant & 10% loans for special category states, 30% grant & 70% loan for other states.

The states had discretion of utilizing the funds for different components as per their own priorities. At least one dalit/tribal basti was to be included in each unelectrified village being taken up for electrification. This condition was relaxed if there were no dalit/tribal basti left to be electrified in that village. In the states where 100% villages were already electrified, the implementation agencies could take up dalit/tribal bastis and if all the dalit/tribal bastis had also been electrified, they could take up electrification of hamlets or load intensification.

**Reason for limited impact** - Difficulties were faced under this scheme on account of no clear cut earmarking of percentage of funds for rural electrification. Many States directed the funds to other areas and Rural Electrification was neglected in the process.

Accelerated Rural Electrification Programme ("AREP")

**Initiation** - The scheme was introduced in the year 2003-04

**Implementing Agency** – State Governments through State Electricity Boards /Power Utilities

**Scope of the program** – Interest subsidy of 4% was provided on loans availed by state governments/power utilities from financial institutions like Rural Electrification Corporation (REC), Power Finance Corporation (PFC), Rural Infrastructure Development Fund (RIDF), National Agricultural Bank and Rural Development (NABARD) etc. for carrying out rural electrification programme.

The assistance was limited to electrification of un-electrified villages, electrification of hamlets/dalit bastis/tribal villages and electrification of households in villages through both conventional and non-conventional sources of energy. Funds were provided on the basis of Net Present Value (NPV) of the interest subsidies applicable on disbursement.

Accelerated Electrification of One lakh villages and One Crore Households

**Initiation** - The scheme was introduced in the year 2004-05 by merging interest subsidy scheme AREP (Accelerated Rural Electrification Programme) and Kutir Jyoti Programme.

**Implementing Agency** – District Electricity Committees were to be constituted under section 166 (5) of the Electricity Act 2003 by the State government to facilitate proactive role for expeditious rural electrification in the district and monitor the functioning of projects. Scheme was implemented under overall supervision and control of REC as lead agency for the scheme.
Scope of the program – Under this scheme, there was a provision for providing 40% capital subsidy for rural electrification projects and the balance as loan assistance on soft terms from REC. Salient features of the scheme are as under:

- Grid based projects as well as stand-alone projects based on distributed generation were eligible for capital subsidies.
- Capital subsidy (up to 40% of capital cost) was to be linked to sustain delivery of electricity to the targeted beneficiaries over the project life of 15 years.
- Balance funds for the project were to be provided by REC as loan assistance.
- For availing capital subsidy, projects needed to demonstrate revenue stream that resulted in sustainable operations with the given level of capital subsidy.
- In the event the revenue streams were based on continuing subsidies from state governments, the same needed to be supported by satisfactory evidence of such continuing support.
- Projects had a universal obligation to provide electricity to all consumers on demand.
- Tariff was to be agreed between the beneficiaries and the Rural Electricity Supply Provider with the involvement of Panchayats, Cooperative, NGOs, and Franchisees etc.
- In electrified villages, 100% grant was to be provided for electrification of BPL households as per existing Kutir Jyoti guidelines.
- Scheme was to be aligned with the policies under section 4 and 5 of the Electricity Act 2003 to facilitate sustainable provision of electricity in rural areas.
- State Governments were required to make all projects receiving subsidy compliant with sections 13 and 14 of the Electricity Act, 2003 so as to enable rural electricity services providers (other than existing state utilities/distribution licensees) to act outside the purview of the state electricity regulatory commissions for purposes of tariff determination (Section 61, 62 and 86 of the Electricity Act, 2003).133

Shakti Sustainable Energy Foundation works to strengthen the energy security of the country by aiding the design and implementation of policies that encourage energy efficiency as well as renewable energy. Based on both energy savings and carbon mitigation potential we focus on four broad sectors: Power, Transport, Energy Efficiency and Climate Policy. We act as a systems integrator, bringing together key stakeholders including government, civil society and business in strategic ways to enable clean energy policies in these sectors.