

No.15/1/2010-11/RVE
Government of India
Ministry of New and Renewable Energy
Remote Village Electrification Programme

Block No. 14, C.G.O. Complex
Lodi Road, New Delhi-110003
Dated: 26th April, 2010

To
State Nodal Agencies/Power Secretaries

Subject: Sanction of Continuation of the Remote Village Electrification Programme during 2010-11

Sir,

Sanction is hereby conveyed for continuation of the Remote Village Electrification Programme of the Ministry of New and Renewable Energy during 2010-11.

2. The above programme/scheme will be implemented during 2010-11 as per the same funding norms/guidelines and other provisions applicable during 2009-10 as announced vide Administrative Approval No.15/1/2009-10/RVE dated 11th November, 2009. These will be applicable till further orders.

3. All state implementing agencies are requested to take up schemes for implementation as per the guidelines of 2009-10 till further communication.

4. This issues with the approval of the competent authority.

(I.P. Singh)
Principal Scientific Officer

Copy to:

1. All State/UT Implementing Departments/Agencies
2. AS & FA
3. All Advisers
4. MD, IREDA
5. Director (Finance)
6. Director (P&C)
7. CA/Assistant CA
8. PAO
9. All MNRE Regional Offices
10. PSO to Secretary
11. Cash Section
12. IFD, MNRE
13. Sanction Folder

(I.P. Singh)
Principal Scientific Officer

F.No.15/1/2009-10/RVE
Ministry of New and Renewable Energy
(Remote Village Electrification Programme)

Block –14, C.G.O. Complex,
Lodi Road, New Delhi-110003.

Dated : 14th July,2009

To

The Pay & Accounts Officer,
Ministry of New and Renewable Energy,
New Delhi.

**Subject: Remote Village Electrification Programme for the year 2009-2010 –
Sanction regarding.**

Sir,

I am directed to convey the sanction of the President of India for implementation of the Remote Village Electrification Programme during the year 2009-2010 at a total outlay of Rs. 80.00 Crore (Rupees Eighty Crores only). The details of the programme component, implementation methodology, financial assistance, release of funds and monitoring mechanism have been given in the Appendix.

The objective of the programme would be to provide electrification/lighting through renewable energy sources of the eligible unelectrified remote census villages and remote unelectrified hamlets of electrified census villages.

2. The activities eligible for Financial Assistance/Support would be :

- i. Installation of power plants based on small hydro power, biomass, wind, biofuels, biogas, etc for electrification of remote villages/hamlets. Solar photovoltaic power plants may also be supported if found to be cost effective. Combination of renewable energy systems or hybrid systems would also be supported. Solar homelighting systems for domestic and community lighting would be supported where no other renewable energy technology is found to be feasible.
- ii. Initial surveys and studies if necessary for firming up of State-wise lists of remote unelectrified census villages and hamlets; assessing the renewable energy resources available in the villages and energy requirements of the community; and, identification of appropriate technology options for electrification, preparation of State-wise Master Plans.
- iii. Institution development and capacity building, development of repair and maintenance infrastructure, etc.

- iv. Monitoring and evaluation of individual projects or the Programme as a whole, including technical, operational and socio-economic aspects, user feedback, impact assessment, etc., development of management information systems for proper coordination and monitoring, etc.
- v. Training, orientation and awareness programmes for various target groups, conferences/seminars/workshops for experience sharing among various stakeholders, etc.
- vi. Development of remote village specific electricity generation systems and packages based on different renewable energy technologies.

3. Each proposal will be examined and concurred in by Integrated Finance Division of the Ministry, on case to case basis.

4. The expenditure on the scheme will be met from the budget provisions given below:

<u>Head of Account</u>	<u>Description</u>	<u>Allocated Amount</u>
‘2810’	The expenditure is debit to Demand No. 67, Ministry of New and Renewable Energy, 00-102-Renewable Energy for Rural Applications, 01-Renewable Energy for Remote Villages, 01-Remote Village Electrification/Lighting Programme, 31-Grants in Aid	Rs. 50.25
	cr 20- Other Administrative	Rs.04.75 cr
‘2552’	North Eastern Region 00-319-Renewable Energy for Rural Applications 01-Renewable Energy for Remote Villages 01- Remote Village Electrification/Lighting Programme 31-Grants in Aid	Rs.25.00 cr

5. This issues in exercise of the powers conferred on this Ministry and with the concurrence of IF Division on 9.7.2009 vide their sanction No. IFD/360/09 dated 8.6.2009.

Yours faithfully,

(I.P. Singh)
Principal Scientific Officer

Copy for Information to:

1. Principal Director of Audit, Scientific Departments, DGACR Building, IP Estate, New Delhi-110 002.
2. Joint Secretary (RE), Ministry of Power, Government of India
3. Secretaries of Ministries of Tribal Affairs, Panchayati Raj and Rural Development
4. CMDs of Rural Electrification Corporation, Power Finance Corporation, Indian Renewable Energy Dev. Agency
5. PS to Hon'ble Minister for New and Renewable Energy.
6. Sr. PPS to Secretary, Ministry of New and Renewable Energy
7. AS&FA
8. Dy. C.A.
9. Director (F)/US(IFD)
10. Dir.(JBSG)/ Dir.(RD)/Dir.(DKT)/ DIR(SKJ)/ PSO(IPS)/ US(RVE)
11. All Regional Offices of MNRE
12. S.O.(Cash)/SO(IFD)
13. Sanction Folder
14. Guard File

(I.P. Singh)
Principal Scientific Officer

Appendix to the Sanction of even number dated 14th July, 2009

**No.15/1/2009-10-RVE
Government of India
Ministry of New and Renewable Energy
Remote Village Electrification Programme**

**Block No. 14, C.G.O. Complex
Lodi Road, New Delhi-110003**

Dated:14th July, 2009

To

- 1. Chief Secretaries of State Governments**
- 2. Principal Secretaries, Energy/Power Depts. of States**
- 3. Chairpersons of State Electricity Boards / Transcos / Gencos**
- 4. State Nodal Agencies for Renewable Energy Development**
- 5. Secretary, Ministry of Power**
- 6. Chairman & Managing Director, Rural Electrification Corporation**

Sub:- Programme for Electrification/Lighting of Remote Unelectrified Census Villages and Remote Unelectrified Hamlets of Electrified Census Villages through Renewable Energy Sources – Administrative Approval for the year 2009-10 - regarding.

Sir,

I am directed to convey the sanction for implementation of the Remote Village Electrification Programme during 2009-10 with following provisions and terms and conditions:

1. Objective

The objective of the Programme is electrification through renewable energy sources of those unelectrified remote census villages and remote unelectrified hamlets of electrified census villages where grid connectivity is either not feasible or not cost effective.

2. Definition of Electrification of Villages

In accordance with the approved definition of village electrification, remote villages/hamlets will be deemed to be electrified if a minimum of 10% of the households are provided with electricity and electricity is also made available for community facilities and for dalit bastis (habitations) of the village, if any.

3. Project Design

Projects should intend to cover all the households in the village/hamlets, including those in the dalit bastis of the village, and creation of capability for availability of electricity as laid down in the National Electricity Policy, 2005, i.e., a minimum of 1 kWh/household/day. However, if the state governments conclude after due consideration that the norm of 1 kWh/household/day is not achievable in a cost effective manner through various Renewable energy technologies, due to inadequate availability of the resources, then as a last resort they may decide to provide at least the basic lighting facilities through solar photovoltaic homelighting systems for each of the willing households in the village. However, as per the National Rural Electrification policies of the Government, villages/hamlets using isolated lighting technologies like solar photovoltaic, may not be designated as “electrified”.

4. Identification of Remote Villages/Hamlets

As stated at s.no.1 above, the support under the Programme will be provided to remote unelectrified census villages/remote unelectrified hamlets of electrified census villages, where grid connectivity is either not feasible or not cost effective. The detailed eligibility conditions are given in para 5. The identification of such remote villages/hamlets has been broadly entrusted to the Rural Electrification Corporation. The state governments should shortlist unelectrified villages/hamlets in their states which are not likely to be electrified through grid and send their names to MNRE for verification by REC. The plan for electrification of remote villages/hamlets should ideally be an integral part of the plan for complete rural electrification in the state.

5. Eligibility of Villages/Hamlets

The current eligibility of villages/hamlets will be as follows:

- i. All census unelectrified villages and their hamlets not covered under Rajiv Gandhi Grameen Viduytikaran Yojana, as confirmed by REC.
- ii. Unelectrified hamlets of electrified census villages having population of less than 100 subject to following certifications:
 - a. A certificate from the local revenue authorities that the hamlet is in permanent existence and certifying its total population, number of total households showing number of SC/ST households, number of BPL households if any, and the census code of the parent electrified village.
 - b. A certificate from the implementing agency that the hamlet is unelectrified and is not being taken up for electrification under state/Central programmes in near future.

- iii. Unelectrified hamlets of electrified census villages having population above 100 but less than 300 which have not been covered for grid connectivity under RGGVY as endorsed by REC.

6. Memorandum of Understanding with the States

With a view to clearly underscore respective roles and responsibilities of the states and the MNRE, it has been decided to enter into a Memorandum of Understanding with each of the state governments intending to implement the RVE Programme. While sanctioning the MNRE support, preference will be given to states who have signed the MoU with MNRE.

7. Activities Eligible for Support

- (i) Installation of power plants based on small hydro power, biomass, wind, biofuels, biogas, etc for electrification of remote villages/hamlets. Solar photovoltaic power plants may also be supported if found to be cost effective. Combination of renewable energy systems or hybrid systems would also be supported. Solar homelighting systems for domestic and community lighting would be supported where no other Renewable energy technology is found to be feasible.
- (ii) Initial surveys and studies if necessary for firming up of State-wise lists of remote unelectrified census villages and hamlets; assessing the renewable energy resources available in the villages and energy requirements of the community; and, identification of appropriate technology options for electrification, preparation of State-wise Master Plans.
- (iii) Institution development and capacity building, development of repair and maintenance infrastructure, etc.
- (iv) Monitoring and evaluation of individual projects or the Programme as a whole, including technical, operational and socio-economic aspects, user feedback, impact assessment, etc., development of management information systems for proper coordination and monitoring, etc.
- (v) Training, orientation and awareness programmes for various target groups, conferences/seminars/workshops for experience sharing among various stakeholders, etc.
- (vi) Development of remote village specific electricity generation systems and packages based on different Renewable energy technologies.

8. Central Financial Assistance (CFA)

- a. Central Financial Assistance of upto 90% of the costs of the Renewable electricity generation systems (including the cost of Annual Maintenance Contract (AMC), if any, for 5 years) will be provided for approved projects for electrification of

remote unelectrified census villages and remote unelectrified hamlets of electrified census villages, subject to the maximum amounts as given in Annexure-I. The technical specifications and norms will be as per the respective MNRE Programme Division's circulars which may be issued from time to time.

- b. The balance cost of projects can be financed through contribution from State Plans, beneficiaries, or other sources. However, it will be necessary that at least half of the balance cost is met from state government's funding.
- c. CFA equal to 1.11 times the maximum approved subsidy for a Model-I SPV homelighting system will be provided for BPL households in all the villages/hamlets approved for electrification through Renewable energy sources.
- d. The maximum amount of CFA from the Ministry for electrification of a village/hamlet will be limited to an amount worked out at the rate of Rs.18,000 per household.
- e. Upto 100% of the cost of organizing activities listed at ii. to vi., s.no. 7, will be provided as Central Financial Assistance on case to case basis on merit of the proposal.

9. Implementation Mechanism

Following sequence of activities will be adopted for approval of financial support and implementation of projects:

- i) Notification by the state government identifying nodal implementation agency for the Remote Village Electrification Programme, if not already notified.
- ii) Preparation of Detailed Project Reports by the nodal implementing agency as per the enclosed format for the villages/hamlets to be taken up for electrification under the Programme; preparation of the plan for sustained operation of the projects including the revenue model proposed; and identification of appropriate village level bodies for actual implementation/overseeing of the work, wherever necessary.
- iii) Approval of the DPRs and the proposals by the state government including the commitment for balance of the funds in the format given at Annexure-II. Commitment of the state government for replacement of batteries in solar photovoltaic systems, whenever required, is also mandatory either as part of Annexure-II or separately.
- iv) Submission of proposals to the Ministry for support along with the required documents.
- v) Competitive bidding process after sanction of the MNRE support. For photovoltaic systems, procurement should be done from suppliers having valid test certificate from a MNRE authorized test centre. For biomass gasification systems, procurement should be from a MNRE approved manufacturer/supplier.
- vi) Implementation of the project.

- vii) Certification by the authorized village/district level officials/bodies, that the village has been electrified or that work has been carried out as per the sanction order/DPR (for SPV homelighting systems).
- viii) Periodic monitoring by the state implementing agency/independent agency and submission of report to MNRE.

Any other requirement which may be laid by the Central Government from time to time through policies/regulations/enactments for rural electrification will have to be complied with.

10. Project Proposals

Project proposals for electrification of remote villages should be accompanied by a project report as per the formats prescribed in the Programme guidelines. The proposals should also contain:

- a) Complete census code number (2001 census) of the remote village.
- b) Complete List of beneficiaries or, a certificate from the agency that the list is available with them.
- c) Approval of the state government in the format given at Annexure-II including an explicit commitment to replace batteries as and when required.
- d) Confirmation from the competent village authority that Renewable energy systems proposed are acceptable.
- e) Confirmation that the villages/hamlets have not been covered under any other programme of the Ministry for providing basic lighting facility.

The proposals/project reports/certificates as above should be signed by the Head of the implementing agency. Otherwise, an authorization letter from the Head, authorizing the person signing, should be enclosed. In such cases, it should be clearly stated in the covering letter that the proposals/project reports/certificates have the approval of the Head of the implementing agency.

11. Pattern of Release of Funds

Release of the Central Financial Assistance for approved projects will be made as per the following pattern:-

- Initial release alongwith the sanction order - 70% of the CFA
- Final installment after commissioning - 30% of the CFA

The amount of funds released along with the sanction order should be utilized as early as possible for payment to the suppliers. In case for unavoidable reasons, it is not possible to utilize the funds, the same should be kept in an interest bearing separate bank account and the

accrued interest should be credited towards the MNRE CFA. A statement of the interest accrued will have to be submitted along with the proposal for second and final release.

Audited Statement of Expenditure (SOE) and UCs would be provided by the state implementing agency in the format given in Annexure-III. The second installment will be released after the receipt of U/Cs and SOEs and required certifications as mentioned at points vii & viii under s.no. 9 above.

12. Service Charges to the Implementing Agencies

The implementing agencies under the RVE Programme are required to undertake surveys of the remote villages for assessment of demand for electricity and availability of renewable energy resources, prepare DPRs, involve beneficiaries including their awareness and training, ensure tie-up of matching funds, implement projects and ensure the short term and long term functionality of the projects through monitoring during installation as well as subsequently including monitoring by independent agencies, technical backup to users, etc. The Ministry will provide to the implementing agencies a one time service charge of Rs.50,000/village taken up for coverage through renewable energy devices. In the case of hamlets, service charges will be limited to 10% of the approved CFA for each hamlet subject to a maximum of Rs.50,000/- per census village. This support would be released along with and in the same proportion as the Central Financial Assistance.

13. Monitoring Arrangements

The concerned State Departments/ implementing agencies must ensure close monitoring of the implementation of the projects and provide periodic progress reports to the Ministry. Third party monitoring by an independent, reputed agency after completion of the projects will be mandatory before release of the final installment. For third party monitoring of the projects, the state agencies are required to identify one or more independent organizations and entrust them with this responsibility. The names of such organizations may preferably be intimated along with the proposals. The charges for these organizations are to be met out of the service charges released by the Ministry. It is suggested that a reasonable amount out of the service charges be kept separate for payment to the independent monitoring agency. After installation also it will be the responsibility of the implementing agencies to ensure functionality of the systems and periodic monitoring may be carried out by them to oversee this. The district/village level agencies should be closely associated in planning, implementation and monitoring of all projects.

The Ministry may also carry out its own monitoring and evaluation of the projects directly or through independent agencies appointed by it. The regional offices of the Ministry will also be authorized to monitor the projects from time to time and required facilities for this purpose should be provided by the state implementing agency.

14. Miscellaneous

This Scheme will be effective for the Financial Year 2009-10 from the date of issue of the administrative approval. The projects already initiated with MNRE support will continue to be financed on the support pattern and under the terms and conditions indicated in the respective sanction letters issued by the Ministry.

The State Government Departments / Agencies may initiate action to implement the Remote Village Electrification Programme during the current financial year as per the Scheme. Firmed up project proposals may be forwarded alongwith the Project Report and other documents as stipulated. The proposals would be considered on merit and subject to availability of funds. The final decision on support would rest with the Ministry.

Yours faithfully,

(I.P. Singh)
Principal Scientific Officer

Copy to:

1. Principal Director of Audit, Scientific Departments, DGACR Building, IP Estate, New Delhi-110 002.
2. Joint Secretary (RE), Ministry of Power, Government of India
3. Secretaries of Ministries of Tribal Affairs, Panchayati Raj and Rural Development
4. CMDs of Rural Electrification Corporation, Power Finance Corporation, Indian Renewable Energy Dev. Agency
5. PS to Hon'ble Minister for New and Renewable Energy.
6. Sr. PPS to Secretary, Ministry of New & Renewable Energy
7. AS&FA
8. Dy. C.A.
9. Director (F)/US(IFD)
10. Dir.(JBSG)/Dir.(RD)/Dir.(DKT)/ DIR(SKJ)/PSO(IPS)/ US(RVE)
11. All Regional Offices of MNRE
12. S.O.(Cash)/SO(IFD)
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14. Guard File

(I.P. Singh)
Principal Scientific Officer

GENERAL TERMS AND CONDITIONS

- The support under the Programme is subject to the provisions of GFR of the Government of India.
- The level of CFA considered for the application will be the one which is applicable at the time of sanction of the project.
- It will be desirable that all statutory clearances from the State Government and other bodies are tied up before the proposal is submitted for support.
- The application should be forwarded by the notified department/agency of the State Government which has been entrusted with the responsibility for electrification of remote villages.
- Mere submission of application, or seeking of additional information by the Ministry would not mean approval of CFA to any particular project.
- The Ministry may through its own officers or through hired experts, get the performance of the approved project appraised, for its operation as per the stated conditions.
- In addition to the above, the Ministry may also designate outside consultants/ institutions for monitoring the performance after commissioning. The project authorities will have to undertake as a precondition for the CFA, to provide all necessary assistance and data to the authorized consultants.
- The implementing agency will also be required to provide data on performance of the project on a six monthly basis to the Ministry for compilation for a period of 3 years.
- The Ministry will have a right to ask for operating and design data from the implementing agency for a period upto three years after commissioning and use the same in whatever manner deemed necessary by it for promotion of the program and in fulfillment of the objectives.
- The Ministry will have a right to publish case studies/success stories/ articles/ technical papers on the performance of the project, wherein due acknowledgement to the implementing agency will be given.
- The achievements made during the course of the project will be covered photographically and copies of such photographs shall be sent to the Ministry for its records.
- The implementing agency will display a notice board at a prominent place at the project site to the effect that the project has been financially supported by the Ministry.
- The CAG or any other agency/officers authorized by this Ministry will have a right of access to the books of accounts of the beneficiary
- MNRE reserves the right to add/alter/change these conditions in its sole discretion to ensure wider fulfillment of the interest of the program.
- Award of CFA by the Ministry will not make it a party to any liability which may arise on account of operation of the project such as accidental injury to persons, damage to surroundings, rehabilitation of displaced persons etc.

**PATTERN OF CENTRAL FINANCIAL ASSISTANCE (CFA) FOR
2006-07 REMOTE VILLAGE ELECTRIFICATION PROGRAMME**

I - Electrification through SPV Systems

Model I and Model II of solar home systems as specified hereunder would only be eligible for support. For proposals involving other models, Central Financial Assistance (CFA) would be restricted to that applicable for Model II. For BPL households, these amounts will be multiplied by a factor of 1.11.

Amount in Rupees			
SPV System		General Category States	Special Category States
Homelighting System Model I	18 W Module, 1 light	5895	6165
Homelighting System Model II	37 W Module, 2 lights	11250	11250
Streetlighting System	74 W Module, 11 W lamp	19602	20578
Power Plants		3,15,000 per KW including modules, batteries, electronic systems, internal cabling, structures, all civil works, fencing, etc. An additional CFA worked out on the basis of Rs.3150 per household will be given towards the cost of distribution lines, service connections, fittings and fixtures inside the houses.	

The above CFA values are based on the costs which include supply of the systems at the site, installation, commissioning and onsite Annual Maintenance Contract (AMC) for five years including warranty for parts and components such as battery, electronics, lamps, etc. For PV modules, the warranty will be for ten years. State implementing agencies must ensure that the required local service setup has been created by the suppliers for fulfillment of AMC liability.

II - Electrification through Small Hydro Projects

Region	Capacity	Maximum CFA/kW (Rupees)
Plain & other regions of all other States	Upto 10 KW	98100
	Above 10 kW and upto 100 KW	92700
	Above 100 KW and upto 1000 KW	68400
Notified Hilly regions of all other States & Islands	Upto 10 KW	1,07,100
	Above 10 kW and upto 100 KW	1,01,700
	Above 100 KW and upto 1000 KW	77400
N.E. Regions, Sikkim, Uttaranchal, J&K and Himachal Pradesh (Special Category States)	Upto 10 KW	1,16,100
	Above 10 kW and upto 100 KW	1,10,700
	Above 100 KW and upto 1000 KW	86400

The above prices are inclusive of all civil works, distribution network within the village, transportation, installation and commissioning charges and Annual Maintenance Contract for 5 years. The cost of transmission lines from the power plant to the village are not included.

III - Electrification through Biomass Gasifier Projects

Maximum Central Financial Assistance/kW, (Rupees)

Type of System	Gasifier rating	Plain	Hilly areas	North-East
100% Producer Gas	Upto 10 kWe	68040	71442	74844
	>10 upto 20 kWe	48528	50954	53380
	>20 upto 50 kWe	49500	51975	54450
	>50 kWe	43726	45912	48099
Dual fuel	Upto 10 kWe	60466 (63,000)	63489 (66150)	66512 (69300)
	>10 upto 20 kWe	40,500	42525	44550
	>20 upto 50 kWe	36000	37800	39600
	>50 kWe	31500	33075	34650

- Note: 1. *figures in brackets include increases in cost on account of oil ghani.*
 2. *Prices are inclusive of 5 year AMC(2years warranty + 3 years), distribution network within the village, all civil works, transportation charges and installation and commissioning charges.*

ANNEXURE-II

FORMAT FOR APPROVAL OF THE STATE ENERGY /POWER DEPARTMENT

Subject: Proposals for Electrification of Remote Villages/Hamlets through Renewable Energy Sources

This is with reference to proposal for electrification of ____ no. of villages/hamlets prepared by(*name of the agency*) which is notified by the state government as the implementing agency for electrification of remote villages/hamlets. The proposal is being submitted for approval of MNRE financial support under the Remote Village Electrification Programme.

This is to confirm that the proposal has approval of the state government and it is also confirmed that the state government will be responsible for, i) mobilizing balance of the funds required, including the minimum stipulated contribution from the state and, ii) long term sustainability of the systems, including replacement of batteries as and when required.

____(*name of the agency*) will be responsible at the field level for repair and maintenance, upgradation, upkeep, etc. of the systems installed under the project.

Signed

Authorized Signatory
Energy/Power Department

ANNEXURE- III

Form of Utilisation Certificate

(As per Form GFR 19-A GOI Decision (1) below Rule 150)

Name of Organisation: _____

Financial Year: _____

S.No.	MNRE sanction for Released amount		
	Letter No.	Date	Amount (Rs. in Lakhs)
TOTAL:			

Certified that out of Rs. _____ of grants-in-aid sanctioned during the year _____ in favour of _____ under this Ministry's letter no. given in the margin and Rs. _____ on account of unspent balance of the previous year, a sum of Rs. _____ has been utilised for the purpose of _____ for which it was sanctioned and that the balance of Rs. _____ remaining unutilised at the end of the year has been surrendered to Government (vide No. _____ dated _____) / will be adjusted during towards the grants-in-aid payable during the next year _____.

2. Certified that I have satisfied myself that the conditions on which the grants-in-aid was sanctioned have been duly fulfilled/are being fulfilled and that I have exercised the following checks to see that the money was actually utilised for the purpose for which it was sanctioned.

Date _____

Place _____

Signature of P.I. _____

Designation _____

Signature _____
Head of Deptt of Project

Signature _____
Accounts Officer of Project

SUGGESTED GUIDELINES FOR IMPLEMENTATION OF VILLAGE ELECTRIFICATION PROJECTS THROUGH RENEWABLE ENERGY SOURCES

These suggestions/guidelines have been drawn on the basis of experience culled over the last few years from implementation process of Remote Village Electrification Programme in various states. State implementing agencies may like to use these as per the specific situation in their states.

1. Only those remote unelectrified census villages and unelectrified hamlets of electrified census villages will be taken up for electrification through renewable energy sources where grid connectivity is either not feasible or not cost effective. Identification of such villages/hamlets will be carried out by the Rural Electrification Corporation, New Delhi. Necessary inputs such as the list of villages not likely to be electrified by the State Governments etc., may be provided to MNRE for onward forwarding to REC.
2. The village electrification projects taken up under this Programme should ideally aim to supply grid quality electricity. The National Electricity Policy, 2005 has laid down an objective of provision of capacity for availability of a minimum of a lifeline consumption of 1 kWh of electricity/ household/ day.
3. The Programme of electrification of remote villages will be taken up by the Ministry with notified departments/agencies of the State Governments responsible for village electrification. The implementing agencies will be responsible for the development of village specific proposals with active involvement of the Gram Sabhas in the villages. The MNRE will receive proposals from the notified implementing agencies.
4. Optimum combinations of various renewable technologies could also be utilized depending upon the specific requirements of a village. The systems would ideally be designed on the basis of a load capability of around 1 unit/ household/ day including supply of electricity for loads such as irrigation, drinking water pumping, village industries, health care, commercial establishments including shops, etc. It will be desirable that selection of the technologies for this purpose is based on the availability of resources and a comparison of the cost of electricity from each of the feasible options. Generally, the order of priority could be :
 - i. Small hydro power plants wherever adequate perennial resources are available and technical feasibility is established, should have first priority.
 - ii. Biomass power plants using biomass gasification systems in conjunction with 100% gas based engines or dual fuel engines with bio-fuels should be used if i) above is not feasible or not sufficient.
 - iii. Biogas based electricity generation systems or bio-fuel based electricity generation systems should be used if i) and ii) above are not feasible or not sufficient.

- iv. Combination of the above along with other feasible renewable energy sources such as wind energy, in hybrid mode.
 - v. Solar photovoltaic power plants could be used if i), ii) and iii) above are not feasible and if cost economics justifies their use.
 - vi. It is possible that in many villages, specially those having having 30-60 or lesser number of households, the above five options may not be cost effective and/or technically feasible. For such villages, SPV homelighting systems (model-1 or model-2, one system for each household) could be employed. However, in these cases the village community should be clearly apprised beforehand of the ramifications of the option including the need to replace battery after some years, the unsuitability of homelighting systems for operating other electrical devices or operating for more number of hours, etc. Detailed justification of unfeasibility of the first five options may also be enclosed.
5. The electricity distribution lines within the village as well as the electricity generation systems should conform to the standards laid down by the respective State Electricity Boards or any other authorized agency and necessary confirmation in this respect should be enclosed at the time of submission of requests for release of last installment.
6. Levy of user charges on an upfront basis and/or monthly basis from the beneficiaries is desirable. Ideally, these charges should be at par with the tariffs levied in villages electrified through grid. Details of the revenue model proposed to be employed including the mechanism for long term sustainability of the operation and maintenance should be enclosed with the DPR. Where SPV homelighting systems are used, a charge of Rs.20 per month for Model-II and Rs.10 per month for Model-I of the homelighting systems could be considered. This money should ideally be kept in a separate account and used for replacement of batteries and other components. A willingness to pay this amount by the beneficiaries should be obtained before installation. A set of separate suggestions in this regard for SPV homelighting systems has also been prepared and sent to all the State Nodal Agencies for consideration.
7. To ensure long term operation, maintenance and sustainability of the projects, appropriate arrangements should be made for suitable Annual Maintenance Contracts (AMC) for a minimum period of 5 years.
8. Although the MNRE CFA will be released to the implementing agencies as per the pattern of release mentioned at para 8 of the circular, it would be desirable that AMC component of the cost should be released to the manufacturer/supplier in installments spread over the complete AMC period. This is to ensure sustained long term operation of the systems.
9. The DPR for the project, which should be a part of the project proposal should preferably be prepared as per the format given in the Annexure. Some of the information requested in the format is general in nature and has been requested in light of frequent

reporting requirements. However, as has been suggested in the past, the agencies may avoid compilation of information which is redundant and which may cause avoidable expenditure.

10. It is clearly understood that the intensification or upgradation (coverage of new/uncovered households, or coverage of increased load in the existing households) will be the responsibility of the state government and MNRE will not entertain any requests for this purpose.

11. Relevant extracts from the National Rural Electrification Policies, 2006 :-

- Goals include provision of access to electricity to all households by the year 2009, quality and reliable power supply at reasonable rates, and minimum lifeline consumption of 1 unit/household/day as a merit good by year 2012.
- 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. Where these also are not feasible and if only alternative is to use isolated lighting technologies like solar photovoltaic, these may be adopted. However, such remote villages may not be designated as electrified.
- State government should, within 6 months, prepare and notify a rural electrification plan which should map and detail the electrification delivery mechanism. The plan may be linked to and integrated with district development plans. The plan should also be intimated to the appropriate commission.
- Gram panchayat shall issue the first certificate at the time of the village becoming eligible for declaration as electrified. Subsequently, the Gram Panchayat shall certify and confirm the electrified status of the village as on 31st March each year.
- The state government should set up a committee at the district level within 3 months, under the chairmanship of chairperson of the Zila Panchayat and with representations from district level agencies, consumer associations, and important stakeholders with adequate representation of women.
- The district committee would coordinate and review the extension of electrification in the district and consumer satisfaction, etc.
- Panchayat Raj institutions would have a supervisory/advisory role.
- It is necessary to seek least cost options after taking into account full lifecycle costs.
- Institutional arrangements for backup services and technical support to systems based on renewable sources of energy will have to be created by the state government.

ANNEXURE TO THE GUIDELINES

**FORMAT FOR PROJECT REPORT FOR REMOTE VILLAGE ELECTRIFICATION
PROJECTS**

A. GENERAL

1. Name & Full Address of the state notified Nodal Deptt./Agency
2. Name & Full Address of the Implementing Agency
(if other than State Nodal Deptt./Agency)
3. Name, Designation and Address (including telephone no./fax no.)
of the authorized signatory.
4. Name, Designation & Full Address of district / village level officials involved

B. VILLAGE/HAMLET DETAILS

5. Whether the proposal is for village or hamlet?
6. If it is for hamlet, its name?
7. Name of the Village, Block & District(enclose village location map, if available)
8. Village census code
9. Is it classified as a tribal village? If yes, pl. indicate the name of the classifying
agency
10. Latitude & Longitude if available
11. Distance from nearest road-head (name of the nearest roadside village)
12. Distance from nearest rail-head (name of the nearest railway station)
13. Distance from block headquarters
14. Distance from electrical sub-station / 11 KV line (also name the location of the
nearest grid sub-station)
15. Number of hamlets along with their names. Pl. also identify the dalit bastis.
16. Total population (including those of the hamlets, in case proposal is for electrification
of unelectrified village). The population may be given hamlet wise.

Pl. indicate the details of Dalit bastis separately.

17. Total no. of households, hamlet wise, and also indicate the number of households proposed to be provided with electrification.
18. Names of beneficiaries, including commercial establishments, shops, etc. Also give classification of beneficiaries in terms of BPL, general and SC/ST categories (enclose a separate annexure)
19. Details of community buildings (places of worship, health centre, school, panchayat office, etc.) proposed to be covered.
20. Details of small and cottage industries (name, activity, owner, number of persons employed, etc.)
21. Main occupation in the village
23. If agriculture, name the main crops

C. TECHNICAL

24. Details of renewable energy resource availability
 - Solar - estimated average annual insolation and clear sunny days in year
 - Biomass - type of biomass, source, quantity (tonnes/year)
 - SHP -water source (canal, run-of-river), distance from village, head (m), discharge (cumecs)
25. Estimated Electrical Demand
 - (a) Household loads (estimate of no.of light points, fans, TV, etc. household-wise)
 - (b) Commercial loads(estimate of no.of light points, fans, TV, etc. establishment-wise)
 - (c) Electrical loads for cottage industries
 - (d) Load for community buildings
 - (e) Load for irrigation/agriculture operations
 - (f) Drinking water pumping loads
 - (g) Requirement of street lights
26. Load profile, hours of operation separately for lights, fans, TV, pumps, etc.
27. Technology option proposed to be deployed
28. Justification for using this particular option
29. Capacity and details of proposed system configuration (enclose layout)

D. COST

- 30. Estimated project cost with break-up into major components
- 31. Means of financing – CFA, State share, other sources
- 32. Revenue generation – user charges, upfront and / or annual / monthly payments

E. IMPLEMENTATION

- 33. Mode of implementation
- 34. Implementation schedule
- 35. Operation & Maintenance arrangements – Warranty, AMC (scope and tenure)
- 36. Long term sustainability plan
- 37. Monitoring arrangements
- 38. Role of local community in planning, implementation and management, including revenue management
- 39. Any other information

Name & Signature with seal of the
Authorized Signatory from the Implementing Agency

Date :
Place :

Note: In case the schedule is signed by a person other than the head of the agency, an authorization letter from the competent authority should be enclosed.