

### **Electricité Du Cambodge** Department of Rural Electrification Fund

### Report

### on Activities of the Department of Rural Electrification Fund for the Year 2013

Compiled by Department of the Rural Electrification Fund 2014

#### Preface

This report on activities of the Department of Rural Electrification Fund for the Year 2013 issued in 2014 is the report compiled from the data and information related to Strategy and Plan for Development of Rural Electrification, Policy on Renewable Energy of the Royal Government of Cambodia (RGC), the establishment of Rural Electrification Fund, mission, activities, and the achievements of Rural Electrification Fund for the period from 22 August 2012 (when Rural Electrification Fund was integrated with EDC) to the end of 2013. This report is aimed for dissemination to RGC, donors, investors and public desirous to know about the activities of Rural Electrification Fund in accelerating of rural electrification development in the Kingdom of Cambodia.

This report is compiled, in Khmer and English.

REF plans to publish the report annually on the achievements of Rural Electrification Fund so that the data and relevant information on activities of Rural Electrification Fund is updated regularly to reflect the actual situation. Any comments or suggestions from RGC, donors, investors or public are welcome and will be considered by Rural Electrification Fund to publish more useful reports in future.

Rural Electrification Fund expects that this report will be a valuable document for the information on activities of Rural Electrification Fund.



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#### Chapter 1 Strategy and Plan for Development of Rural Electrification and Policy on Renewable Energy of the Royal Government of Cambodia

### **1.1** Strategy and Plan for Development of Rural Electrification

The Royal Government of Cambodia (RGC), in its pursuit to reduce poverty, improve the standard of living and foster economic development of the rural areas, takes cognizance of the need to meet the basic infrastructure requirements of its marginalized rural people. Creating access to reliable electricity services at an affordable cost in rural areas is thus an integral part of the governmental agenda of economic development and social uplift.

To implement the above agenda, RGC through the Ministry of Mines and Energy (MME), which is the expertise ministry, has set a two-step target in rural electrification:

- (i) by the year 2020, all the villages of the Kingdom of Cambodia will have electricity of some type; and
- (ii) by the year 2030, at least 70% of households will have access to grid-quality electricity.

The strategy outlined to achieve the above target consists of (i) - Electricité du Cambodge to undertake expansion of the High Voltage (HV) grid system to more provinces and Medium Voltage (MV) supply into rural areas, (ii) - the expansion of the area of supply of the licensees supplying in rural areas, and (iii) - the private investors in power sector to provide power supply to new areas.

### **1.2 Policy on Renewable Energy**

The RGC has issued six policy statements embracing the rural electrification by renewable energy sources as follows<sup>1</sup>:

- 1. Striving to provide reliable electricity service that is safe and resulted in minimum negative impacts on the environment at a cost acceptable to the rural communities.
- 2. Offering legal framework, effective directions, a variety of encouragement, and fostering private sector participation to supply electricity services by using renewable energy to the rural communities.
- 3. Acting as facilitator in the market by using a variety of encouragement apparatus conducive to electricity service that is equitable, reliable, and safe, with minimum negative impacts on the environment at an affordable price to the rural communities.
- 4. Fostering the generation, transmission, and distribution of electricity with renewable energy technologies by setting electricity rates that are in accordance to the principle of Cambodia's electricity law.
- 5. Promoting the electricity system that uses the cheapest renewable energy system for the rural communities; research, trial and error, and developing model are ones of the Government's duties related to grid extension and off grid extension.
- 6. Guarantying to provide sufficient fund, appropriate mechanism, and various training to allow participation in the rural electrification effort by financially disadvantage people.

<sup>&</sup>lt;sup>1</sup> Policy on Rural Electrification by Renewable Energy, January 2007.

### Chapter 2 Information on Rural Electrification Fund

### 2.1 Establishment of Rural Electrification Fund

RGC issued the Royal Decree No. NS/RKT/1204/048 dated 4 December 2004 on the establishment of the Rural Electrification Fund of the Kingdom of Cambodia to accelerate the development of rural electrification. In the initial year, Rural Electrification Fund utilized the funds provided by the World Bank under the Rural Electrification and Transmission Project (RETP) and RGC's counterpart fund. After RETP was closed on 31<sup>st</sup> January 2012 and funds were not made available by the Ministry of Economy and Finance (MEF) to meet the operation expenses of Rural Electrification Fund, then, on 22<sup>nd</sup> August 2012, RGC issued a new Royal Decree No. NS/RKT/0812/734, amending some articles of the old Royal Decree on formation of Rural Electrification Fund, to integrate Rural Electrification Fund with Electricité du Cambodge (EDC) so that Rural Electrification Fund can continue to perform its works independently on Cambodian funding and still also receive grant and donations from external funding to assist in development of rural electrification in Cambodia. In accordance with this new Royal Decree, EDC has established a new department<sup>2</sup> known as "Department of Rural Electrification Fund" herein after called "REF".

This is a big step of the RGC to attract and encourage the private sector to invest in electric power infrastructure in rural areas in order to accelerate the development of electricity in rural areas so that more poor people in the rural areas can access electricity for lighting, commercial use, handicraft and other purposes for improving their standard of living and for the general interest of the society.

### 2.2 Organisation Structure of REF

REF operates in accordance with the Statute of EDC and functions as a non-profit organization and has separate account.

### 2.3 Address of REF

REF's office is located at Building # 205, National road No. 5, Sangkat Kilometer No. 6, Khan Russeykeo, Phnom Penh, Cambodia. REF's website is <u>www.ref.gov.kh</u>.

<sup>&</sup>lt;sup>2</sup> Decision No. 0898 dated September 12, 2012 on theintegration of REF institution in the management structure and organization of EDC.



REF has also its own library for public who wishes to understand about REF's activities, report and the development of rural electrification in the Kingdom of Cambodia.



### 2.4 The Sources of Fund for REF

The sources of fund for REF are as follows:

- 1. Social budget package provided in electricity tariff of EDC and other donations of EDC, if any.
- 2. Donations and grants whose sources and terms are acceptable to the Ministry of Mines and Energy (MME) and the Ministry of Economy and Finance (MEF).
- 3. Other sources from RGC.

At present, REF's funding is from EDC. In 2013, EDC has provided fund of \$4 million for the operation of REF and implementation of three rural electrification development programs consisting of (i) - Program for Power to the Poor (P2P), (ii) - Program for Solar Home System (SHS), and (iii) - Program for Providing Assistance to Develop Electricity Infrastructure in Rural Areas.

### Chapter 3 Information on Objectives, Mission and Program of REF for the Development of Rural Electrification

### 3.1 **Objectives of REF**

The objectives of REF are as follows<sup>3</sup>:

- 1. To promote equitable rural electrification coverage by facilitating the population's access to electricity at affordable price for economic, social and household uses, thus contributing to poverty reduction.
- 2. To promote and encourage private sector to participate in providing sustainable rural electrification services; in particular the exploitation of and economic application of technically and commercially well proven new and renewable energy technologies.

### 3.2 Missions of REF

REF has the following missions:

- 1. Promoting equitable rural electrification coverage by facilitating the population's access to electricity at affordable price for economic, social and household uses.
- 2. Providing support for the preparation and implementation of rural electrification projects.
- 3. Promoting and facilitating the poor households in rural areas to have access to electricity for their houses from grid supply by providing interest free loan.
- 4. Promoting and facilitating the remote rural household, which may not have access to the electricity network for a long period, access electricity through Solar Home System.
- 5. Promoting and facilitating the private electricity supplier in rural areas having legal license to access fund for investing on expansion of electricity supply infrastructure to fully cover its authorized distribution area in order to allow all rural households have access to electricity for use.
- 6. Promoting the use of well proven, technically and commercially viable new and renewable energy technologies.

REF will use its resources to achieve the above missions depending on the conditions for which fund are made available by different sources.

### **3.3 Programs of REF for Development of Rural Electrification**

At present, REF is implementing the following programs:

### **3.3.1** Power to the Poor (P2P) Program

The purpose of this program is to facilitate the poor households in rural areas to have access to electricity for their houses from grid supply by providing interest free loan to meet (i)- costs for the connection fees of the electricity supplier, (ii)- costs for deposit to be deposited with the electricity supplier, (iii)- costs for purchase of materials and labor for the installation of wires from the connection point to its house, and (iv)- costs for purchase of materials and labor for the installation of wires. The loan will be paid through the electricity supplier who will be

<sup>&</sup>lt;sup>3</sup> Provision 3 of the Royal Decree No NS/RKT/1204/048 dated 4 December 2004 on the establishment of REF.

responsible to pay back to REF by collecting from the Borrower in easy monthly installments within a specific period. The Amount of this loan shall not exceed 480,000 Riels per household.

### 3.3.2 Solar Home System (SHS) Program

The purpose of this program is to facilitate the remote rural household, which may not have access to the electricity network for a long period, access electricity through SHS. REF will provide a subsidy per SHS to rural households, as assistance to reduce the cost of the SHS and the purchaser shall pay back the remaining cost without interest, after deducting the subsidy, in installments to REF within a specific period. After the purchaser has paid the remaining cost in full, the SHS will become the property of the purchaser.

## **3.3.3** Program for Providing Assistance to Develop Electricity Infrastructure in Rural Areas

The purpose of this program is to facilitate the private electricity supplier in rural areas having legal license to access fund for investing on expansion of electricity supply infrastructure to fully cover its authorized distribution area in order to allow all rural households have access to electricity for use. The criterion for implementation of this program is formulated for three different types of area considering the density of population as follows:

**Area No. 1 - Area with high density of population having economic efficiency:** REF will provide the guarantee on loan borrowed by electricity supplier in rural areas from the local banks for investment on expansion of electricity infrastructure in rural areas to fully cover its authorized distribution area.

Area No. 2 - Area with medium density of population, where doing electricity business may not be profitable if the electricity supplier has to pay interest on the investment capital: REF will provide the interest free assistance for investment on electricity infrastructure in rural areas.

Area No. 3 - Area with low density of population, where doing electricity business is not viable unless part of the infrastructure cost is provided as grant: REF will provide part of the infrastructure cost as grant and part of the cost as interest free assistance for investment on electricity infrastructure in rural areas.

### **3.4** Eligibility criteria for implementation of REF Programs

### 3.4.1 Eligibility criteria for P2P Program

Eligibility criteria for Rural Electricity Enterprises (REEs) and rural HH are as follows:

### A. Eligibility Criteria for REEs

Eligibility criteria for REEs are as follows:

- Having license for providing electric power from Electricity Authority of Cambodia (EAC) and license term is at least 5 years.
- The supply to the rural area is from the grid supply for a period of at least one year.
- Maintaining correct accounting statement to show the viability of their operation.

- Responsible to collect back the payment in installments from the rural HH and transfer to REF's account on time.
- Responsible to any losses caused by non-payment by rural HH except if REF agrees to eliminate the debt.
- Agree to execute contract: (i) Contract for Soft Loan from REF for Connection of Electricity Supply, (ii) - Contract between REF and REE for utilizing soft loan under P2P Program, (iii) - Principles for implementation of P2P Program by providing soft loan to poor households in rural areas for connection of electricity supply, and other concerning documents under P2P Program.

### B. Eligibility Criteria for rural HH

Eligibility Criteria for rural HH are as follows:

- Living in the existing electrified rural areas.
- Household not yet connected to the supply system.
- Have a stable house for safety of electrification.
- Ability to pay back every month.
- Agree to payback in monthly installment within maximum period of 36 months.
- Agree to execute contract: (i) Contract for Soft Loan from REF for Connection of Electricity Supply, (ii) - Principles for implementation of P2P Program by providing soft loan to poor households in rural areas for connection of electricity supply, and other concerning documents under P2P Program.

### 3.4.2 Eligibility criteria for SHS Program

Eligibility criteria for SHS are as follows:

- 1. The rural HH and pagoda in remote rural area, which may not have access to the electricity network for at least 5 years.
- 2. The rural HH agrees to repay the remaining cost of the SHS after deducting the subsidy to REF within the period of 4 years. The first payment is to be made on the date of acceptance of the SHS. The pagoda agrees to pay the full remaining cost after deducting the subsidy at the time of installation.
- 3. The purchaser shall agree to execute the contract and other legal documents with REF.

### **3.4.3** Eligibility criteria for Program for Providing Assistance to Develop Electricity Infrastructure in Rural Areas

#### Area No. 1: Area with high density of population having economic efficiency

Eligibility criteria for area No. 1 is as follows:

- 1. Electricity supplier shall have valid license for providing electricity service issued by Electricity Authority of Cambodia (EAC) and the term of the license shall be for at least 5 years from the date of application for loan.
- 2. Electricity supplier shall have proper accounting record of its electricity business.

- 3. This loan will be only for investment in electricity supply infrastructure in rural areas connected from the national grid or supplying power through isolated system.
- 4. Electricity supplier can use this loan for investment on Medium Voltage (MV) and Low Voltage (LV) electricity supply infrastructure in its authorized licensed area, both for the development of new electricity infrastructure and for improving the existing electricity infrastructure in its authorized licensed area.
- 5. Electricity supplier shall agree to execute a contract and other legal documents with EDC for the guarantee on the loan from bank and with bank for getting the loan.
- 6. Electricity supplier shall obtain no-objection from EAC on the conditions, including the transfer of license to EDC in case the borrower could not pay back on time as agreed with the bank, in the guarantee contract for loan which the electricity supplier shall execute with EDC.
- 7. Source of funds for this implementation is from local banks.

# Area No. 2: Area with medium density of population, where doing electricity business may not be profitable if the electricity supplier has to pay interest on the investment capital

Eligibility criteria for area No. 2 are as follows:

- 1. Electricity supplier shall have valid license for providing electricity service issued by Electricity Authority of Cambodia (EAC) and the term of the license shall be for at least 5 years from the date of application for loan.
- 2. Electricity supplier shall have proper accounting record of its electricity business.
- 3. This budget is for investment on electricity infrastructure in rural areas connected from the national grid only.
- 4. Electricity supplier can use this loan for investment on Medium Voltage (MV) and Low Voltage (LV) electricity supply infrastructure in its authorized licensed area, both for the development of new electricity infrastructure and for improving the existing electricity infrastructure in its authorized licensed area.
- 5. Electricity supplier prepares development plan with cost and gets approval for investment from EAC.
- 6. Electricity supplier applies for interest free assistance from REF with a detailed development plan and copy of the approval for the investment from EAC.
- 7. REF examines the application and sanctions the appropriate amount of interest free assistance to be provided in instillments and sign contract for disbursement and repayment. Electricity supplier shall obtain no-objection from EAC on the conditions, including the transfer of license to EDC in case the borrower could not pay back on time as agreed with REF, in the contract for interest free assistance.
- 8. Electricity supplier applies to REF for disbursement of interest free assistance along with progress report. REF verifies the progress and makes disbursements in installment depending on the work progress. REF will acknowledge the repayment of the full amount of the interest free assistance when the full amount of interest free assistance is repaid back in installment by the electricity supplier.

- 9. The interest free assistance provided under this scheme will be interest free.
- 10. The amount of the interest free assistance will not exceed USD 100,000 (one hundred thousand) per project. The electricity supplier may request for other new project for consideration of REF when required.
- 11. In the case of existing electricity supplier, the amount of the interest free assistance will not exceed 50% of the cost of the existing electricity infrastructure of the electricity supplier as assessed by EAC. In the case of new electricity supplier, the amount of the interest free assistance will not exceed 50% of the cost of the proposed electricity infrastructure of the electricity supplier as assessed by EAC.
- 12. Electricity supplier shall agree to execute the contract and other legal documents with REF.
- 13. Source of funds is from EDC.

### Area No. 3: Area with low density of population, where doing electricity business is not viable unless part of the infrastructure cost is provided as grant

Eligibility criteria for area No. 3 are as follows:

- 1. Electricity supplier shall have valid license for providing electricity service issued by Electricity Authority of Cambodia (EAC) and the term of the license shall be for at least 5 years from the date of application for loan.
- 2. Electricity supplier shall have proper accounting record of its electricity business.
- 3. This budget assistance is for investment only on LV electricity infrastructure in rural areas connected from the national grid and which is evaluated by REF as area eligible for grant.
- 4. Electricity supplier can invest the amount of this budget assistance for the development of new electricity infrastructure in rural areas.
- 5. Electricity supplier shall prepare development plan with cost and get approval for investment from EAC.
- 6. Electricity supplier applies for budget assistance from REF with a detailed development plan and copy of the approval for the investment from EAC including justification for sanction of the scheme and the amount of grant.
- 7. REF examines the application and sanctions the appropriate amount of grant and interest free assistance to be provided in installments and sign contract for disbursement and repayment. Electricity supplier shall obtain no-objection from EAC on the conditions, including the transfer of license to EDC in case the borrower could not pay back on time as agreed with REF, in the contract for grant and interest free assistance.
- 8. Electricity supplier applies to REF for disbursement of budget assistance along with progress report. REF verifies the work progress and makes disbursements in installment depending on the work progress. REF will acknowledge the repayment of the full amount of the interest free assistance when the full amount of interest free assistance is repaid back by the electricity supplier. The amount, provided as grant in this budget assistance by REF, is not required to be paid back.
- 9. The interest free assistance provided under this scheme will be interest free.
- 10. The amount of the interest free assistance and grant will not exceed USD 100,000 (one hundred thousand) per project. The electricity supplier may request for other new project for consideration of REF when required.

- 11. In the case of existing licensee, the amount of the grant will not exceed 30% of the cost of the project and the amount of the interest free assistance will not exceed 50% of the cost of the existing electricity infrastructure of the electricity supplier as assessed by EAC. In the case of new electricity supplier, the amount of the grant will not exceed 30% of the price of the project and the amount of the interest free assistance will not exceed 50% of the price of the interest free assistance will not exceed 50% of the price of the proposed electricity infrastructure of the electricity supplier as assessed by EAC.
- 12. Electricity supplier shall agree to execute the contract and other legal documents with REF.
- 13. Source of funds is from EDC.

### Chapter 4 Information on the progress/ achievements and analysis of each Program implemented by REF

### 4.1 **Program for Power to the Poor (P2P)**

### 4.1.1 Target number and achievement under P2P Program

From August 2012 until 31<sup>st</sup> December 2013, 25 contracts with 21 licensees (four licensees have executed 2 contracts each) for providing new connections in rural areas under P2P program have been executed by REF. The total target number under these 25 contracts is connection to 5,331 rural household (HH). Provincewise summary information on execution of contracts under P2P Program is given in **Annex 1**.

Out of the 25 contracts, for some contracts 100% target was achieved within the contract period, whereas for some contracts part target was achieved within the contract period and such contracts have been terminated on the expiration of the contracts period and some contracts are ongoing as the contracts period was not over on 31<sup>st</sup> December 2013. Provincewise summary information on contracted target number of rural households to be connected to supply system, number of rural household connected to supply system and target number of new connections, not achieved and contract terminated under P2P Program as on 31<sup>st</sup> December 2013 is given in **Table 1** below.

**Table 1:** Provincewise summary information on contracted target number of rural households to be connected to supply system, number of rural household connected to supply system and target number of new connections, not achieved and contract terminated under P2P Program as on 31<sup>st</sup> December 2013

No.	Province	Contracted taget number of rural HH to be connected to supply system, (HH)	Number of rural HH connected to supply system, (HH)	Target number of new connections, not achieved and contract terminated (HH)
1	Banteay Meanchey	1,241	640	309
2	Battambang	400	400	0
3	Kandal	605	405	200
4	Pursat	500	477	23
5	Preah Sihanouk	200	28	172
6	Svay Rieng	250	250	0
7	Takeo	2,135	1,264	854
	Total	5,331	3,464	1,558

Provincewise summary information on contracted target number of rural households to be connected to supply system, number of rural household connected to supply system and present position under P2P Program as on 31<sup>st</sup> December 2013 is given in **Annex 2**.

Up to 31<sup>st</sup> December 2013, 3,464 rural consumers have got direct benefit of this program. According to Cambodia Inter-Censal Population Survey 2013 Final Report, the average household size in rural area is 4.6 persons. Hence the number of population directly benefited from this program is 15,934 persons.

P2P program has provided the much needed impetus to REEs by increasing the number of consumers (rural household) and hence increasing the sell of electricity.

Provincewise total number of villages and villages in which P2P program was implemented as on  $31^{st}$  December 2013 is given in **Table 2** below.

No.	Province	Total number of villages	Number of villages in which P2P program was implemented
1	Banteay Meanchey	633	31
2	Battambang	749	23
3	Kandal	1,087	17
4	Pursat	501	33
5	Preah Sihanouk	108	8
6	Svay Rieng	690	29
7	Takeo	1,116	108
	Total	249	

**Table 2:** Provincewise total number of villages and villages in which P2P program wasimplemented as on 31st December 2013

List of villages covered by P2P Program as on 31<sup>st</sup> December 2013, is given in **Annex 3**.

Map showing the provinces in which P2P Program is implemented as on 31<sup>st</sup> December 2013 is given in **Annex 4**.

### 4.1.2 Site inspection activities on implementation of P2P Program

To ensure that the implementation of P2P program is implemented in a transparent and proper manner, REF staff verified the new connection to rural consumers under P2P program for all licensees who implemented this program. Some physical activities of new connection verification are shown pictorially below.

Mrs. Ouch Por having license No. 054L for providing electricity service at Khum Prey Phdav, Some parts of Khum Taing Yab, Khum Champa, Khum Kdanh and Khum Kampeing, Prey Kabas District, and Khum Ponley, Angkor Borey District (Takeo)





### 4.2 **Program for Solar Home System (SHS)**

#### 4.2.1 12,000 SHS provided under Rural Electrification and Transmission Project

The Rural Electrification and Transmission Project (RETP) under the World Bank fund, Global Environmental Facility Trust Fund (GEF), and RGC's counterpart fund was closed on 31<sup>st</sup> January 2012. After RETP was closed, REF continues to maintance the SHS and collects payback installments. Provincewise information on number of SHS installed to rural HHs by REF under RETP is given in **Table 3** below.

**Table 3:** Provincewise information on number of SHS installed to rural HHs by REF under RETP

No	Drovince	Nu	mber of SHS inst	alled
No.	Province	30Wp	50Wp	Total
1	Kampong Speu	232	1,395	1,627
2	Kampong Thom	161	4,000	4,161
3	Kratie	715	-	715
4	Mondul Kiri	91	625	716
5	Preah Vihear	85	530	615
6	Pursat	28	1,298	1,326
7	Ratanak Kiri	-	486	486
8	Siem Reap	798	1,556	2,354
	Total	2,110	9,890	12,000

12,000 rural HHs are directly benefited by this program (one SHS per HH). According to Cambodia Inter-Censal Population Survey 2013 Final Report, the average household size in rural

area is 4.6 persons. Hence the number of population directly benefited from this program is 55,200 persons.

To ensure that the SHS installed to rural HHs, operates well and to collect the payback amount in instalments from the purchasers, REF has hired a private firm to provide this service.

List of villages in which 12,000 SHS have been installed under RETP is given in Annex 5.

Provincewise total number of villages and villages which access electricity through SHS under RETP is given in **Table 4** below.

No.	Province	Total number of villages	Number of villages access electricity through SHS
1	Kampong Speu	1,358	50
2	Kampong Thom	737	127
3	Kratie	250	12
4	Mondul Kiri	90	34
5	Preah Vihear	208	31
6	Pursat	501	35
7	Ratanak Kiri	240	19
8	Siem Reap	923	55
	Total		363

 Table 4: Provincewise total number of villages and villages which access electricity through SHS under RETP

The challenges faced in the implementation of SHS program are as follows:

- Purchaser requests to delay the payment due to not having money to repay.
- Purchaser can afford payment but unwilling to pay on the ground that another purchaser has not paid.
- Purchaser mishandles the SHS resulting in improper operation of the SHS and avoid payment on the ground that SHS is not operating.
- Purchaser migrates leaving behind very old or/and young person to look after the house who has no money for payment.
- Purchaser removes SHS unauthorizedly and take it to new in accessible place like farm, forest and mountain hence cannot be contacted to get payment.
- Purchaser go to the rice field by locking the house and theif steal the system (some agree to pay and some disagree to pay the remaining cost of the system),
- Purchaser leave the house when the Operator arrives or on the way to collect the money.
- Purchaser take some excuse to delay the payment to another day.
- The SHS is damaged by fires or lightning etc. and the purchaser refuses to pay the balance instalments.

As on 31<sup>st</sup> December 2013, in spite of the above challenges, the implementation of this program can be considered satisfactory.

Map showing the provinces in which SHS Program is implemented under RETP as on 31st December 2013 is given in **Annex 6**.



### Some photoes of rural households with SHS installation

4.2.2 Program for 4,000 SHS with the capacity of 50Wp

In 2013, EDC has executed a contract on 22 November 2013 with Rich Grid Technology Co., Ltd for supply of 4,000 SHS with 50Wp to REF. The SHS are expected to be received in early 2014. These materials are for sale to and installation at remote rural households. To implemt this program, EDC has executed a contract on 16 December 2013 with B.N.P. Power Green (Cambodia) Co., Ltd for providing services of transportation, installation, collection of payback in installment and maintenance of 4,000 SHS.

### 4.3 Program for Providing Assistance to Develop Electricity Infrastructure in Rural Areas

### 4.3.1 Target number and achievement under Program for Providing Assistance to Develop Electricity Infrastructure in Rural Areas

From August 2012 until 31<sup>st</sup> December 2013, REF has executed 24 contracts for providing assistance to develop electricity infrastructure in rural areas with 24 licensees. Provincewise

information on licensees who have executed contracts with REF for getting Assistance to Develop Electricity Infrastructure in Rural Areas as on 31st December 2013 is given in **Annex 7**.

Out of the 24 contracts, for some contracts 100% target was achieved within the contract period, whereas for some contracts part target was achieved within the contract period and such contracts have been terminated on the expiration of the contracts period and some contracts are ongoing as the contracts period was not over on 31<sup>st</sup> December 2013. Provincewise information on contracted target length of network, constructed length of network under Program for Providing Assistance to Develop Electricity Infrastructure in Rural Areas as on 31<sup>st</sup> December 2013 is given in **Table 5** below.

No.	Province	Contracted target length of network, (km)	Constructed length of network, (km)
1	Banteay Meanchey	34	6
2	Battambang	19	19
3	Kampong Chhnang	28	22
4	Kampong Speu	12.7	0
5	Kampot	22.5	0
6	Kandal	12	0
7	Koh Kong	22.95	6.45
8	Kratie	8	0
9	Prey Veng	13.63	0
10	Pursat	27.40	10.92
11	Preah Sihanouk	5	0
12	Takeo	40	14
	Total	245.18	78.37

**Table 5:** Provincewise information on contracted target length of network, constructedlength of network under Program for Providing Assistance to DevelopElectricity Infrastructure in Rural Areas as on 31st December 2013

Provincewise summary information on contracted target length of network, constructed length of network and present position under Program for Providing Assistance to Develop Electricity Infrastructure in Rural Areas as on 31st December 2013 is given in **Annex 8**.

Up to 31<sup>st</sup> December 2013, 24 licensees have been directly benefited by this program. This program has provided the much needed impetus to REEs to expand electricity supply to cover fully and quickly its authorized license area so that more rural household can access grid quality electricity supply from the REEs.

Provincewise total number of villages and number of villages electrified under program for providing assistance to develop electricity infrastructure in rural areas as of  $31^{st}$  December 2013 is given in **Table 6** below.

**Table 6:** Provincewise total number of villages and number of villages electrified under program for providing assistance to develop electricity infrastructure in rural areas as of 31<sup>st</sup> December 2013

No.	Province	Total number of villages	Number of villages access electricity
1	Banteay Meanchey	633	3
2	Battambang	749	8

3	Kampong Chhnang	557	17
4	Kampong Speu	12.7	0
5	Kampot	22.5	0
6	Kandal	12	0
7	Koh Kong	22.95	6.45
8	Kratie	8	0
9	Prey Veng	1,137	2
10	Pursat	501	8
11	Preah Sihanouk	108	2
12	Takeo	1,116	6
		Total	46

List of villages covered by program for providing assistance to develop electricity infrastructure in rural areas as on 31st December 2013 is given in **Annex 9**.

Map showing the provinces for which REF provides Assistance to Develop Electricity Infrastructure in Rural Areas as on 31st December 2013 is given in **Annex 10**.

## **4.3.2** Site inspection activities on implementation of program for providing assistance to develop electricity infrastructure in rural areas

To ensure that the implementation of program for providing assistance to develop electricity infrastructure in rural areas is implemented in a transparent and proper manner, REF staff verified the construction of networks for all licensees who implemented this program. Some physical activities of new network construction verification are shown pictorially below.

### Mr. Chhuor Nguon having license No. 033L for providing electricity service at some parts of Khums Boeng Khnar, Khum Khnar Totueng and Me Tiek, Bakan District (Pursat)





### 4.4 Program for feasibility study of micro hydropower station

REF had several meetings with groups of local and international consultants and private firms on the possibility to develop micro hydropower station in rural areas of the Kingdom of Cambodia. REF has discussed with Seabell International the above issue and gone down to visit the site at Waterfall Chrork Laeang entertainment, Khum Chheu Tom, Krokor District, Pursat province.

> Some physical activities of the meeting with Seabell International and site visite at Waterfall Chrork Laeang entertainment, Khum Chheu Tom, Krokor District, Pursat province



### Annex 1 Provincewise summary information on execution of contracts under P2P Program

Province/city	Area of supply	License No.	Name of Licensee	Connection to grid supply
Banteay Meanchey	Some parts of Khum Phnum Touch, Khum Chamnaom, Khum Soea and Khum Ou Prasat, Mongkul Borei District	179L	Mr. Thon Thoeurn	National Grid
	Some part of Khum Chnuor Mean Chey, Khum Preah Net Preah, Khum Chob Vari, and Khum Rohal, Preah Netr Preah District	108L	Mrs. Sin Savuon	National Grid
	Khum Ou Beichaon, Ou Chrov District	276L	Mr. Chun Rithy	Thai MV Grid
	Some parts of Kralanh District and Preah Netr Preah District	164L	Vathanak N.T. Angkor Co., Ltd	National Grid
Battambang	Some parts of Khum Boeng Pring, Thma Koul District	079L	Mr. Thon Thoeurn	National Grid
	Khum Ta Meun and Khum Chrouy Sdau, Thma Koul District	201L	Mr. Ou Chanrat	National Grid
	Some parts of Khum Chrey and Khum Ou Ta Ki, Thma Koul District	202L	Mrs. Kung Samon	National Grid
Kandal	Khum Roka Kong Ti Muoy, and some parts of Khum Roka Kong Ti Pir and Khum Preaek Dambang, Mukh Kompul District	037L	Mr. Eang Seng Hy	National Grid
	Khum Krang Yov, Some parts of Khum Tuek Vil and Khum S'ang Phnum, S'ang District	179L	Mr. Nhoek My	National Grid, Vietnam MV Grid
Pursat	Khums Boeng Kantuot, Khum Tnaot Chum, Khum Ou Sandan, Khum Sna Ansa, Khum Anlong Tnot, Khum Kbal Trach and Khum Ansa Chambak, Krakor District	125L	Mr. York Savong	National Grid
Preah Sihanouk	Khum Prey Nob, Khum Tuol Totueng, Khum Ou Oknha Heng and Some parts of Khum Angdoung Thma and Khum Boeng Ta Phrum, Prey Nob District	184L	Mrs. Chea Kimthat	Kampot-Sihanouk Grid
Svay Rieng	Khum Khsaetr, Khum Samlei and Khum Tnaot, Kampong Rou District, Khum Chres, Khum Chantrea and Khum Tuol Sdei, Chantrea District	268L	Mr. Tak Bora	Vietnam MV Grid

Takeo	Khum Ta Ou, Khum Kamnab, Khum Kiri Chong Kaoh, Some parts of Khum Phnum Den, Khum Preah Bat Choan Chum and Khum Saom, Kiri Vong District	013L	Electricity Kirivong Enterprise	Vietnam MV Grid
	Phsar Samrongyong town, Some areas of Khum Trapeang Sab, Khum Chompei, Khum Kandoeng and Khum Pea Ream, Bati District	015L	Electricity Samrong Yorng Enterprise	National Grid
	Khum Kouk Pou, Khum Doung khpos, and Some parts of Khum Borei Cholsar, Borei Cholsar District, some parts of Khum Kouk Thlok, Angkor Borei District, and some parts of Khum Angkanh, Treang District	022L	Mr. Kong Phat	Vietnam MV Grid
	Khum Prey Phdau, some parts of Khum Tang Yab, Khum Champa, Khum Kdanh and Khum Kampeaeng, Prey Kabbas District, and Khum Ponley, Angkor Borei District	054L	Mrs. Ouch Por	National Grid
	Khum Preaek Phtoul, Khum Angkor Borei and District Town of Angkor Borei.	113L	Mr. Nou Kruy	National Grid
	Some parts of Khum Samraong, Khum Soengh, Khum Sla, Khum Cheung Kuon and Khum Trea, Samraong District	178L	Mr. Pech Sopheap	National Grid
	Some partsof Khum Tang Yab, Khum Kdanh and Khum Champa, Prey Kabbas District	212L	Mr. Ngeth Meng	National Grid
	Khum Doung, Bati District	231L	Mr. Mey Sina	National Grid
	Some parts of Khum Kampeaeng, Prey Kabbas District and Khum Ponley, Angkor Borei District	238L	Mr. Hou Veasna	National Grid
	Khum Prey Phkoam, Angkor Borei District	273L	Mr. Chea Sovannara	National Grid

### Annex 2

Provincewise summary information on contracted target number of rural households to be connected to supply system, number of rural household connected to supply system and present position under P2P Program as on 31<sup>st</sup> December 2013

Provice/City	License No.	Name of Licensee	Contracted taget number of rural HH to be connected to supply system, (HH)	Number of rural HH connected to supply system, (HH)	Remark
Banteay	179L	Mr. Thon Thoeurn	200	200	Success and Project Closed
Meanchey	108L	Mrs. Sin Savuon	200	200	Success and Project Closed
	276L	Mr. Chun Rithy	292	0	Under implementation
	164L	Vathanak N.T. Angkor Co., Ltd	549	240	Project Closed
Battambang	201L	Mr. Ou Chanrat	200	200	Success and Project Closed
	202L	Mrs. Kung Samon	200	200	Success and Project Closed
	037L	Mr. Eang Seng Hy	200	0	Failed and Project Closed
Kandal	179L	Mr. Nhoek My	200	200	Success and Project Closed
	179L	Mr. Nhoek My (Project 2)	205	205	Success and Project Closed
Pursat	125L	Mr. York Savong	500	477	Project Closed
Preah Sihanouk	184L	Mrs. Chea Kimthat	200	28	Failed and Project Closed
Svay Rieng	268L	Mr. Tak Bora	250	250	Success and Project Closed
	013L	Electricity Kirivong Enterprise	330	0	Project Closed
	015L	Electricity Samrong Yorng Enterprise	250	250	Success and Project Closed
	015L	Electricity Samrong Yorng Enterprise (Project 2)	80	80	Success and Project Closed
Takeo	022L	Mr. Kong Phat	100	47	Project Closed
	054L	Mrs. Ouch Por	200	21	Project Closed
	113L	Mr. Nou Kruy	150	150	Success and Project Closed
	113L	Mr. Nou Kruy (Project 2)	65	0	Failed and Project Closed
	178L	Mr. Pech Sopheap	110	110	Success and Project Closed
	212L	Mr. Ngeth Meng	330	201	Project Closed

231L	Mr. Mey Sina	150	52	Project Closed
238L	Mr. Hou Veasna	150	150	Success and Project Closed
273L	Mr. Chea Sovannara	150	150	Success and Project Closed
273L	Mr. Chea Sovannara (Project 2)	70	53	Failed and Project Closed
	Total	5,331	3,464	

### Annex 3 List of villages covered by P2P Program as on 31<sup>st</sup> December 2013

No	Commune	Number of villages in which P2P program	Name of	Name of District	License	Licensee
	code	was implemented	Commune		No.	
1	Banteay Mea	anchey				
	10203	Chuor Knas, Boeng Tras, Dorng Trang	Chamnaom	Mongkol Borei	079L	Mr. Thon Thoeurn
	10208	Kor Svay	Rohat Tuek	Mongkol Borei	079L	Mr. Thon Thoeurn
	10207	Phnum Touch Cheung, Phnum Touch Tboung, Wat Thmey, Monorom, Boeng Raing, Thnal Bort, Ou Nhou Cheung	Phnum Touch	Mongkol Borei	079L	Mr. Thon Thoeurn
	10405	Poy Kdoeung	Preah Netr Preah	Preah Netr Preah	108L	Mrs. Sin Savuon
	10406	Snay, Anlong Thma	Rohal	Preah Netr Preah	108L	Mrs. Sin Savuon
	10509	Banteay Thmey, Yeang Dangkum, Thnal Bort, Thum Nob Dach, Chok Chey, Brasat, Ou Beichaon, Seila Khmer	Ou Beichaon	Ou Chrov	276L	Mr. Chun Rithy
	10408	Samrong, Snay Laar, Thmey	ToeukChaur	Preah Netr Preah	164L	Vathanak N.T. Angkor Co., Ltd
2	Battambang					
	20207	Boeng Pring, Poy Ta Sek, Ou Nhor Tboung	Boeng Pring	Thma koul	079L	Mr. Thon Thoeurn
	20206	Chrouy Sdau, Nikum Krau, Nikum Knong	Chrouy Sdau	Thma koul	201L	Mr. Ou Chanrat
	20202	Ta Sey, Thmey, Samrong, Kok Trab, Tum Neab, Krasaing, Chroy Mtes	Ta Meun	Thma koul	201L	Mr. Ou Chanrat
	20204	Po Peal Khea, Kbal Khmoch, Hay San, Svay Chrum, Chrey Thmey, Prey To Toeng, Kor Ko, Chrey, Chrey Chas	Chrey	Thma koul	202L	Mrs. Kung Samon
	20203	Kor koh	Ou Ta Ki	Thma koul	202L	Mrs. Kung Samon
3	Kandal					
	81005	Thuom, Ampil, Takul, Ang, Tapich, Kandal, Chek, Samrong, Andoung, Roka, Vihear, Kor, Pingpoung, Tuolkrang, Kampong Por	KraingYov	S'ang	179L	Mr. Nhoek My
	81010	Kork Andet	S'ang Phnum	S'ang	179L	Mr. Nhoek My

	81016	Prek Raing	Tuek Vil	S'ang	179L	Mr. Nhoek My
4	Pursat					·
	150308	Ou Achkok, Krang Thom, Ou Ta Brok, Pot Tream, Knoeng, Chong Klong, Thnoeng, Dong Chuor, Por Ro Bong, Mat Prey	Ou Sandan	Krakor	125L	Mr. York Savong
	150309	Veal Vong, Sna Ansa, Saravorn	Sna Ansa	Krakor	125L	Mr. York Savong
	150301	Tkol Thom, Tun Say Kul, Psar, Bobit, Banteay Krong	Anlong Tnot	Krakor	125L	Mr. York Savong
	150307	Trapaing Rumdeng, Kampong Leu, Samrong, Trapang Smach, Kandal, Totueng, Sre Russey	Kbal Trach	Krakor	125L	Mr. York Savong
	150302	Ksach Laet, San Sor, Tkol Thom, Tkol Toch, Arorng Prouch, Kbal Dam Rey, Plov Kandal	Ansa Chambak	Krakor	125L	Mr. York Savong
	150305	TiPi	Kampong Luong	Krakor	125L	Mr. York Savong
5	Preah Sihan		-			
	180207	Prey Nob 1, Prey Nob 2, Bort Semorn	Prey Nob	Prey Nob	184L	Mrs. Chea Kimthat
	180213	Tuol Totueng 3	Tuol Totueng	Prey Nob	184L	Mrs. Chea Kimthat
	180201	Trapaing Sauy2	Andoung Thma	Prey Nob	184L	Mrs. Chea Kimthat
	180206	Ou Tapang, Bat Ko Ki,Ou Oknha Heng	Ou Oknha Heng	Prey Nob	184L	Mrs. Chea Kimthat
6	Svay Rieng					
	200104	Tuol Kampous, Trapang Dear Leu, Trapang Dear Krom, Tuol Spean, Tuol Ampil, Svay Kuy, Trapang Run, Don Noy, Trapang Thlork	Chres	Chantrea	268L	Mr. Tak Bora
	200103	Chantrea	Chantrea	Chantrea	268L	Mr. Tak Bora
	200207	Tapor, Prey Pneat, Samley Khang Cheung, Svay, Samley Khang Tboung, Prey Mnas	Samlei	Kampong Rou	268L	Mr. Tak Bora
	200217	Thom, Por Maom, Bon	Tnaot	Kampong Rou	268L	Mr. Tak Bora
	200209	Prey Thlork, Prey Preus	Svay Ta Yean	Kampong Rou	268L	Mr. Tak Bora
	200203	Prey Ta Nhauy, Samor, Prey Char, Trapang Kampeus, Kandal, Thmey, Kampeus, Trork	Khsaetr	Kampong Rou	268L	Mr. Tak Bora
7	Takeo					
	210204	Kra Sang, Krang Ampil	Kandoeng	Bati	015L	Electricity Samrong Yorng Enterprise

210215	Chork, Pun Phnum, Trapang Tim, Deum Kray, Tra Keat, Tasou, Rolang Kreul, Smao Kchei, Roka Khpous, Pich, A Chang, Sangke, Sdock Prey, Trapang Sang, Ksach Loub, Trapang Sab	Trapeang Sab	Bati	015L	Electricity Samrong Yorng Enterprise
210209	Chumrov, Tang Nheat, Trapang Young, Kruos, Krang Kra Chang, Pea Ream	Pea Ream	Bati	015L	Electricity Samrong Yorng Enterprise
210202	Moeung Bro Chen, Prek, Brey Moul	Champei	Bati	015L	Electricity Samrong Yorng Enterprise
210303	Sophy, Tasai, Ta Yueng, Ang Kanh, Prey Malub, Daung Khpuos, Treuy Klauk, Trapang Tunle, Taruos, Rotes Klork	Doung khpos	Borei Cholsar	022L	Mr. Kong Phat
210611	Prey Pni, Dong	Prey Phdau	Prey Kabbas	054L	Mrs. Ouch Por
210605	Ta Muong, Kampaeng Tboung	Kampeaeng	Prey Kabbas	054L	Mrs. Ouch Por
210101	Prey Sam Buor, Kampong Luong, Sameakki, Steung Kambot	Angkor Borei	Angkor Borei	113L	Mr. Nou Kruy
210105	Kampong Po, Angkor	Preaek Phtoul	Angkor Borei	113L	Mr. Nou Kruy
210708	Dey Kra Horm, Svay, Krang Ro Uot, Tuol Char, Prey Totueng, Samrong, Kan Som Ork	Samraong	Samraong	178L	Mr. Pech Sopheap
210710	Trapang Trav, Angkor Chang Et, Srey Bandith	Sla	Samraong	178L	Mr. Pech Sopheap
210703	Trapang Vihear, Ta Khoch, Tbach, Trapang Veng, Tamao, Anchanh, Thkov, Cheung Kuon, Pon Sang	Cheung Kuon	Samraong	178L	Mr. Pech Sopheap
210711	Sambuor, Trealeu, Kampong Trea, Daong, Daun Tei, Veng, Russey Chrum, Thnot Te, Thma	Trea	Samraong	178L	Mr. Pech Sopheap
210607	Samdach Poarn, Veal, Krang Vich, Kdanh, Kbam, Angkor	Kdanh	Prey Kabbas	212L	Mr. Ngeth Meng
210603	Chroy, Danghet, Russey Thmey	Champa	Prey Kabbas	212L	Mr. Ngeth Meng
210613	Angkor Veay, Tropang Tea, Prey Chambak, Snuol Kpours, Keo Chamreun, Chraneang Kpours	TangYab	Prey Kabbas	212L	Mr. Ngeth Meng
210213	Thmey	Thnaot	Bati	231L	Mr. Mey Sina
210203	Daong, Krang Broteal, Chek, Bro Moul Sok, Yupka, Kandal	Doung	Bati	231L	Mr. Mey Sina

210604	Ampil Leach	Char	Prey Kabbas	231L	Mr. Mey Sina
210104	Ponley, Samrong, Thlok Yuol, Sra Mok	Punley	Angkor Borei	238L	Mr. Hou Veasna
210605	Chang Keub	Kampeaeng	Prey Kabbas	238L	Mr. Hou Veasna
210106	Prey Pkam Kor, Prey Pkam Khor, Prey Pkam Ko, Prey Pkam, Trong Phum	Prey Phkoam	Angkor Borei	273L	Mr. Chea Sovannara

Total: 249 Villages

Annex 4 Map showing the provinces in which P2P Program is implemented as on 31<sup>st</sup> December 2013



### Annex 5 List of villages in which 12,000 SHS have been installed under RETP

No	Commune Code	Number of villages access electricity through SHS	Name of Commune	Name of District
1	Kampong Sp	eu .		
	50401	Champey, Dey Chhnang, Prey Toteung, Monorom, Krang, Krang Ko Ki, Krang Ta Va, Tang Robong, Tuol Thnong	Haong Samnam	
	50402	Peamros, Ou Pdao, Reaksmey	Reaksmei Sameakki	Aoral
	50404	Dambong Vinch, Kork, Sre Vean, Pring Korng, Trapang Korng, Tades, Tuol Chheu Neang	Sangkae Satob	
	50601	Beng, Thmey, Krang Chek	Chambak	
	50609	Dey Kra Horm, Chey Thmey, Prey Kbong	Prey Kmeng	
	50613	Chankiri, Chambak, Chorngkaom, Dambong Kpos, Deum Pdeak, Sbek Preal, Senchey, A Yea, Ou Bort, Kongmeas, Kampong krasang, Pring, Brosaub Chum, Trapang Saray, Sameakki, Tibey, TiPi, Tibuon, Timuoy, Tibram, Teuk Chench, Veal Thom	TraengTrayueng	Phnum Sruoch
	50607	Kon Trom	Ou	
	50604	Krang Chres, Krang Serey, Tang Cia	Kiri Voan	
2	Kampong Th	lom		-
	60501	Boeug Kvek, Serei Sokha, Anlong Sleng, Ansor Kra Hay, Chhouk Boeng, Chhouk Krours, Chhouk Stoeng, Prasat, Krabao, Trapang Sala, Ta Ork, Toeuk Andaong	Chhuk	Prasat Sambour
	60505	Chineang, Kork Srok, Prey Kdey, Thmey, Kampong Krasang, Prolay Khum, Soriya, Tang Stoung, Tang Krosao, Toeuk Andaong	Tang Krasau	Flasat Saliboui
	60602	Sre Veal Khang Keut, Sre Veal khang Lech, Sre Ksach, Sampor Toch	Dang Kambet	
	60603	Peam Kleng, Kleng, Kumpot Chhouk, Rokar Chuor, Trakuon, Toeukvil	Klaeng	
	60601	Boeng Bra, Boeng Rolum, Cham Pka, Kai Rorng, Chheuteal, Prey Kanleng, Andaong Pring, Kampong Taben, Samrith, Veal Pring Krom	Chheu Teal	Sandan
	60606	Ngon, Ou Thnot, Sralao, Treub, Samphi, Tang Krasao, Veal Pring Leu	Ngan	Sandan
	60605	Po Ping, Chaom Phal, Chaon Leng, Chek Muoy, Ptoul, Thmey, Rumpus, Ro Neam, Trabek, Soamrum, Veal Snay	Mean Chey	
	60604	Boeng, Chaom Svay, Ou Pok, Kanti, Sam Orng, Tboung Toeuk	Mean Rith	

	60607	Sre Chorng	Sandan	
	60608	Pou Rong, Pren, Ansa, Krang, Rum Chek, Tra Yorng	Sochet	
	60609	Leng, Runteah, Sralao Srong, Samrong	Tumring	
	60401	Dong Pdeak, Daong, Ko Kor, Krabao, Kruors, Ta Mum	Doung	
	60403	Pdeak, Prey Damrey, Smouch, Kra Nhoung, Tra Pang Knong, Sochul	Phan Nheum	
	60402	Baray, Bos Thom, Anlong Chuor, Kra Yea Cheung, Kra Yea Tboung	Kraya	
	60405	Russey Duoch, Boss Veng, Boss Sramorch, Chey, Daong Anteak, Sre, Andas, Ou Krouch, Koki, Kvan Tieng, Trapang Pdeak, Trapang Kroul, Trapang Thma, Sala Popel, Sala Visay, Talek Thmey, Veal Lpeak, Khmak	Sala Visai	Prasat Ballangk
	60406	Chanserey, Thmey, Samrong	Sameakki	
	60404	Ou Ang kor, Ou Ksong, Sakream Khang Cheung, Sakream Khang Tboung, Veal Thal	Sakream	
	60407	Chunluors, Thom, Krapeu, Mreak Koar, Mreak Khoar, Tuol Kreul	Toul Kreul	
3	Kratie	· · · ·		
	100205	Ban Te, Bos Lvea Leu, Chongkrang, Prekkov, Komma, Koar Sang, Preah Kunlong, Chrorva Koh Dach, Krou Lob, Samrith, Samrath, Talous	Koah loab	Chitr Borie
4	Mondul Kir	i		
	110404	Bou Sra, Pou Cha, Pou Toeurt, Pou Luk, Pou Rang, Lam Me, Pou chrey Yang, Pou Tang	Bu Sra	
	110402	Chong Phan,Ma Pai	Pu Chrey	Pech Chreada
	110403	Pou Kreng, Pou Radeth	Srae Ampum	
	110401	Krang Tes, Lourapet, Tram Kach	Krang Teh	
	110205	Sre Huy	Srae Huy	
	110206	Chamreun, Serey Mean Rith, Serey Mongkul, Serey Rath, Kbal Koh, Kbal Chroy, Meanchey, Rangsi	Srae Sangkum	
	110202	Antres, Ou Buon Leu, Tuol	A Buon Leu	Kaoh Nheaek
	110201	Peam Chi Meat, Nong Buor	Nang Khi Lik	
	110203	Me Mum, Ro Yor	Roya	
	110204	Chi Klob Leu, Sre Thom, Klong Le	Sokh Sant	
5	Preah Vihea	<u>r</u>		
	130703	Bak Kam, Sethakech	Chhean Mukh	Tbaeng Mean Chey
	130403	Pong Rou, Dan, Damnak Kantuot, Trao Keat, Steung Sen Monorum	Thmei	Kuleaen

	130402	Pchuor Chrouk, Pearang	Kuleaen Cheung	
	130401	KoulenTboung,Krabao	Kuleaen Tboung	
	130404	Boss, Pnov, Srabal	Phnom Penh	
	130601	Dar, Senkong, Tbeng, Bratheat, Sreysranors	Chamraeun	
	130604	Sdav, Trapang Thlork, Souch, Ta Bors	Sdau	
	130603	Samlanh	PhnumTbaengMuoy	Sangkum Thmei
	130602	Andaong Plou, Kdey, Stoeng, Knoul	Ro'ang	
	130605	Trapang Rang, Tra Seng, Svay	Ronak Ser	
6	Pursat			·
	150502	Dong Rong, Damrey Sar, Kean, Ampil Kan Chrinch, Anlong Hab	Kaoh Chum	Kandieng
	150405	Veal Vong	Rokat	
	150406	Ksetr Borei	Santreae	Phnum Kravanh
	150407	Prek 2, Ou Heng, Sam Rong 1, Sam Rong 2, Veal	Samraong	
	150304	Bom Nork, Cham Chas, Chheu Tep, Tien Prey, Kbal Tea Hean, Kandal, Pteah Chek	Chheu Tom	
	150311	Chheu Teal	Thnaot Chum	Krakor
	150310	Boeng Smok, Ansar Chambak, Kam Reng, Trapang Chhnuol	Svay Sa	
	150603	Chamkar Chrey Khang Cheung, Chamkar Chrey Khang Tboung, Dey Krahoam, Kandal, Kram Ro Ngaeng	Anlong Reab	X7 1X7
	150601	Kien Chong Ruk, Ou Som, Chhaylok	Ou Saom	Veal Veaeng
	150604	Pra Mouy, Stoeng Thmey, Tumpor	Pramaoy	
7	Ratanak Kir	i	· · · · · · · · · · · · · · · · · · ·	
	160703	Pok Po, Pok Thom, Pork Toch, Laom	Pak Nhai	On Va Dara
	160701	Kok Phnaong, Takok Chray	Bar Kham	Ou Ya Dav
	1608505	Pa Tang, Pruok	Ba Tang	
	160501	Dey Lo, Sre Chhuok, Thmey, Ou Kanh, Lum Phat, Sam Kha	Chey otdam	Lumphot
	160503	Ka Laong, Kamh Plaench, Ka Toeng	LbangMuoy	Lumphat
	160504	Ka Chanch, Ka Tieng	Lbang Pir	
8	Siem Reap			·
	170203	Dorng Rong, Peak Snieng Thmey, Chub Som, Trapang Touk, Sandan, Kting	Peak Snaeng	
	170201	170201 Porng Toeuk, Chub, Prasatr, Trapang Touk, Toap Svay Chob Ta Trav		Angkor Thum
	170202	Bampenh Reach, Don Ouv, Phlong, Trapang Svay, Samrong, Tabrok	Leang Dai	Aligkoi Thuifi
	170204	Boss Tatrao, Kor Kork, Kandal, Preah Ko, Svaychek, Tatrao	Svay Chek	

171403	Beydot, Dai Ao, Kork Wat, Prey Knol, Sre Po, Sen Chey, Ou Rumchek, Lvea, Trapang Krasang, Samut, Wat, Knaptol	Srae Nouy	
171402	Korkchan, Kork Kandal, Ou Tei	Lvea Krang	Varin
171401	Vien, Kab Dai, Kan chunrun, Prasat, Tum Neab Svay	Prasat	v arin
171401	Russey Thom, Cha, Ou, Kambor, Svaysar	Svay Sa	
171405	Chan Run, Kork Kruors, Kork Srok, Rum Duol, Varin	Varin	

Total: 363 Villages

Annex 6 Map showing the provinces in which SHS Program is implemented under RETP as on 31<sup>st</sup> December 2013



### Annex 7

Provincewise information on licensees who have executed contracts with REF for getting Assistance to Develop Electricity Infrastructure in Rural Areas as on 31<sup>st</sup> December 2013

Province/ city	Area of supply	License No.	Name of Licensee	Connection to grid supply
Banteay	Some parts of Khum Phnum Touch, Khum Chamnaom, Khum Soea and Khum	179L	Mr. Thon Thoeurn	National Grid
Meanchey	Ou Prasat, Mongkul Borei District.			
	Along Road No. 56 from Krong Serei Saophoan to Boeng Trakuon, Khum Kouk Romiet, Thma Puok District.	189L	Phum Nimit Co, Ltd	National Grid
	Some parts of Khum Bat Trang, Khum Rohat Tuek, Khum Chamnaom and Khum Soea, Mongkul Borei District.	324L	Mrs. Khiev Sokha	National Grid
Battambang	Some parts of Khum Boeng Pring, Thma Koul District	079L	Mr. Thon Thoeurn	National Grid
	Some parts of Khum Prey Svay, Khum Reuessei Krang, Khum Kear, Khum Robas Mongkol, Moung Reuessei District.	303L	Mrs. Lim Vanna	National Grid
	Khum Ta Meun and Khum Chrouy Sdau, Thma Koul District.	201L	Mr. Ou Chanrat	National Grid
Kampong Chhnang	Khum Ponley, Khum Chak and Some parts of Khum Popel and Khum Khon Rang, Boribour District.	040L	Mr. Mak Heat	National Grid
	Special Purpose Transsmission License and Distribution License.	300L	OSVR Trading Co., Ltd	National Grid
Kampong	Some parts of Khum Traeng Trayueng, Phnum Sruoch District.	082L	Mr. Ly Sok Kry	National Grid
Speu	Some parts of Kong Pisei, Samraong Tong, Basedth, Phnum Sruoch District.	224L	Sokha Electricity	National Grid
Kampot	Some parts of Banteay Meas, Kampong Trach and Angkor Chey District.	093L	Akissni Touk Meas Enterprise	Vietnam MV Grid, National Grid
Kandal	Khum Kampong Chamlang, Khum Sithor and Khum Chey Thum, Khsach Kandal District	045L	Mrs. Choup Neang	National Grid
	Khum Svay Prateal, Khum Traeuy Sla, Khum Ta Lon, Khum Khpob, Khum	049L	Eastern Power	Vietnam MV Grid,
	Brasat, S'ang District, and Khum Pouthi Ban, Khum Kampong Kong, Khum		Supply Enterprise	National Grid
	Chrouy Ta Kaev, Khum Chheu Kmau, Khum Preaek Chrey and Khum Leuk			
	Daek, Kaoh Thum District.			
Koh Kong	Khum Boeng Preav, Srae Ambel District.	358L	Mr. Ouch Ngak	National Grid
Kratie	Khum Kantuot, Some parts of Khum Thma Andaeuk, Khum Dar, Khum Bos	342L	Yonsopheakrith	National Grid
	Leav, Chitr Borie District, Khum Khsuem and Khum Svay Chreah, Snoul District.		Trading Co., Ltd	

Prey Veng	Area of Pea Reang District.	045L	Mrs. Choup Neang	National Grid
	Khum Roka, Khum Prey Sralet, Khum Prey Pnov and Khum Prey Sniet, Pea Reang District.	294L	Mrs. Chheng Kimheak	National Grid
Pursat	Some parts of Khums Boeng Khnar, Khum Khnar Totueng and Me Tiek, Bakan District.	033L	Mr. Chhuor Nguon	National Grid
	Some parts of Veal Veaeng District.	303L	Mrs. Lim Vanna	National Grid
	Khums Boeng Kantuot, Khum Tnaot Chum, Khum Ou Sandan, Khum Sna Ansa, Khum Anlong Tnot, Khum Kbal Trach and Khum Ansa Chambak, Krakor District	125L	Mr. York Savong	National Grid
Preah Sihanouk	Khum Prey Nob, Khum Tuol Totueng, Khum Ou Oknha Heng and Some parts of Khum Angdoung Thma and Khum Boeng Ta Phrum, Prey Nob District	184L	Mrs. Chea Kimthat	Kampot-Sihanouk Grid
	Some parts of Khum Boeeng Preav, Khum Stueng Chhay, Kampong Seila District, Khum Cheung Kou, Prey Nob District and Khum Chrouy Svay, Stueng Hav District.	304L	Mong Reththy Group Co., Ltd	National Grid
	Some parts of Khum Chamkar Luong, Khum stueng Chay, Kampong Seila District.	358L	Mr. Ouch ngak	National Grid
Takeo	Phsar Samrong Yong Town, Some areas of Khum Trapeang Sab, Khum Champei, Khum Kandoeng and Khum Pea Ream, Bati District	015L	Electricity Samrong Yorng Enterprise	National Grid
	Khum Kouk Pou, Khum Doung khpos, and Some parts of Khum Borei Cholsar, Borei Cholsar District, some parts of Khum Kouk Thlok, Angkor Borei District, and some parts of Khum Angkanh, Treang District.	022L	Mr. Kong Phat	Vietnam MV Grid
	Khum Prey Phdau, some parts of Khum Tang Yab, Khum Champa, Khum Kdanh and Khum Kampeaeng, Prey Kabbas District, and Khum Ponley, Angkor Borei District.	054L	Mrs. Ouch Por	National Grid
	Some parts of Kiri Vong District.	093L	Akissni Touk Meas Enterprise	Vietnam MV Grid, National Grid
	Khum Preaek Phtoul, Khum Angkor Borei and District Town of Angkor Borei.	113L	Mr. Nou Kruy	National Grid
	Some parts of Khum Otdam Soriya, Tram Kak District and Khum Boeng Tranh Khang Tboung, Khum Boeng Tranh Khang Cheung, Khum Samraong, Khum Chumreas Pen, Khum Soengh and some part of Khum Lumchang, Samraong District.	188L	Mr. Lim Sisophorn	National Grid

### Annex 8

Provincewise summary information on contracted target length of network, constructed length of network and present position under Program for Providing Assistance to Develop Electricity Infrastructure in Rural Areas as on 31<sup>st</sup> December 2013

Province/city	License Number	Name of Licensee	Contracted target Length of Network (km)	Constructed Length of Network (km)	Remark
Banteay Meanchey	079L	Mr. Thon Thoeurn	6	6	Disbursed
	189L	Phum Nimit Co, Ltd	20	0	Under Construction
	324L	Mrs. Khiev Sokha	8	0	Under Construction
Battambang	303L	Mrs. Lim Vanna	19	19	Disbursed
	201L	Mr. Ou Chanrat	4.5	0	Under Construction
Kampong	040L	Mr. Mak Heat	6	0	Under Construction
Chhnang	300L	OSVR Trading Co., Ltd	22	22	Disbursed
Kampong Speu	082L	Mr. Ly Sok Kry	8	0	Under Construction
	224L	Sokha Electricity Co., Ltd	10	0	Under Construction
Kampot	093L	Akissni Touk Meas Enterprise	12	0	Under Construction
Kandal	045L	Mrs. Choup Neang	7	0	Under Construction
	049L	Eastern Power Supply Enterprise	12.7	0	Under Construction
Koh Kong	358L	Ouch Ngak	6.45	6.45	Disbursed
Kratie	342L	Yonsopheakrith Trading Co., Ltd	8	0	Under Construction
Prey Veng	294L	Mrs. Chheng Kimheak	6.63	0	-
Pursat	033L	Mr. Chhuor Nguon	16.4	10.92	Disbursed
	125L	Mr. York Savong	11	0	Under Construction
Preah Sihanouk	184L	Mrs. Chea Kimthat	5	0	Under Construction
	304L	Mong Reththy Group Co., Ltd	16.5	0	Under Construction
Takeo	015L	Electricity Samrong Yorng Enterprise	6	6	Disbursed
	022L	Mr. Kong Phat	6	0	Under Construction
	054L	Mrs. Ouch Por	4	0	Under Construction
	113L	Mr. Nou Kruy	16	0	Under Construction
	188L	Mr. Lim Sisophorn	8	8	Disbursed
		Total	245.18	78.37	

Annex 9 List of villages covered by program for providing assistance to develop electricity infrastructure in rural areas as on 31<sup>st</sup> December 2013

No.	Code of Commune	Name of Village	Name of Commune	Name of District	License No.	Licensee		
1	Banteay Meanchey							
	10211			Mongkol Borei	079L	Mr. Thon Thoeurn		
	10203	Sre Prey, Ta Bun	Chamnaom					
2	Battambang							
	20611	Siem, Chhke Kham Preus, Preak Chik	Preaek Chik	Rukhak Kiri	303L	Mrs. Lim Vanna		
	20612	Prey Khlot, Stok Bro Veuk	Prey Tralach					
	20603	Cham Ro Ar, Kor	Prey Svay	Moung				
	20604	Nikum Krom	Ruessei Krang	Ruessei				
3	Kampong Chhnang							
	40603	Toeuk Chench ,Tang Bampong, Pring Kaong, Luong, Talau, Andaong Chek	Cheung Kreav	Rolea B'ier	300L OSVR Trading Co., Ltd			
	40609	Prey Muol, Prey kroal, Tavak, Brochak	Prey Mul					
	40604	A leng	ChreyBak					
	60708	Chambak Kanch Treagnch, Kork Pouk, Koul Nang, Chas, Tang Krasang, Krang Ta Mum	Tang Krasang	Tuek Phos				
4	Prey Veng							
	140802	Tkov, Prey Tumpoung	Kanhcham	Pea Reang	294L	Mrs. Chheng Kimheak		
5	Pursat							
	150103	Pteas Sla, Kroch Seuch, Bakmek, Ta Mok, Kna Toteung	Knar Totueng	Bakan	033L	Mr. Chhuor Nguon		
	150104	Samrong Preykheav	Me Tuek					
	150102	Prey Svay	Boeng Khnar					
	150301	Tkol Thum	AnlongThnot	Krakor	125L	Mr. York Savong		
6	Preah Sihanouk							
		Kiri Voan	Stueng Chhay	Kampong Seila	358L	Mr. Ouch Ngak		
		Chamkar Luong	Chamkar Luong					

7	Takeo	keo						
	210215	Trapang Tim, Stok Prey, Poun Phnum,	Trapeang Sab	Bati	015L	Electricity Samrong		
		Chumrov, Smao Kchey				Yorng Enterprise		
	210702	Boeng Tranh	Boeng Tranh	Samraong	188L	Mr. Lim Sisophorn		
			Khang Tboung	_				

Annex 10

Map showing the provinces for which REF provides Assistance to Develop Electricity Infrastructure in Rural Areas as on 31<sup>st</sup> December 2013

