



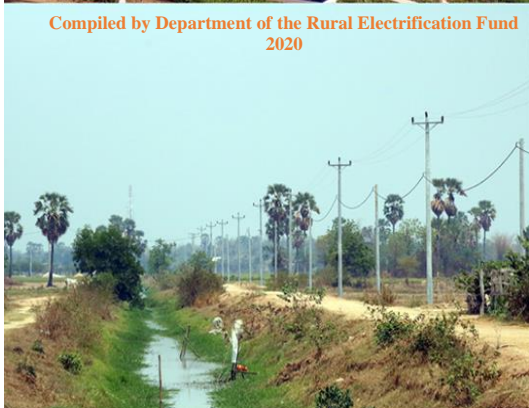
Electricité Du Cambodge

Department of Rural Electrification

Completion Report on Transferring the Real Benefits to the Rural Population under Funding by KfW



Compiled by Department of the Rural Electrification Fund
2020



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**Message from
Minister attached to the Prime Minister
Managing Director of Electricité du Cambodge (EDC)**



It gives me great pride to present the completion report of Department of Rural Electrification Fund of EDC (hereinafter called "REF") titled "Transferring the Real Benefits to the Rural Population for the years 2015 to 2018 under funding by KfW". REF was established to accelerate the development of rural electrification with the aim to assist the rural population in the Kingdom of Cambodia to have access to electricity for their use.

From 2015 to 2018, KfW provided a fund of \$10.29 million to REF through EDC for extending the benefits of electrification to the population in rural area.

This fund was used by REF for providing benefit to the rural population throughout the Kingdom of Cambodia by implementation of the following 3 programs:

- 1st - **Program for Power to the Poor (P2P):** 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 the costs for connection fees, deposit, equipment and the installation of wires from the connection point to its house and costs for purchase of materials and labor for the installation of in-house wiring. From 2015 to 2018, this program, funded by KfW, has directly benefited 2,721 rural families, equivalent to 12,516 persons.
- 2nd - **Program for Solar Home System (SHS):** 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, to access electricity through SHS. REF provides a subsidy of USD 100 per SHS-50Wp and SHS-80Wp to rural households, as assistance to reduce the cost of the SHS and the purchaser shall pay back the amount in monthly installment without interest, in a period of four years. After the purchaser has paid the remaining cost in full, the SHS becomes the property of the purchaser. From 2015 to 2018 under funding by KfW, this program has directly benefited 20,753 rural families' equivalent to 95,463 persons.
- 3rd - **Program for Providing Assistance to Improve Existing and Develop new 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 in the authorized distribution area to have access to electricity for their use. From 2015 to 2018 under funding by KfW, 65 licensees have directly benefited from this program by constructing 1,418.70 km long lines.

The above efforts have resulted in many direct and indirect benefits for a large number of households across the country. This is clearly, a concrete and real progress in helping Cambodia build a stronger foundation for a sustainable economy and for social development of the country.

This report "Transferring the Real Benefits to the Rural Population for the years 2015 to 2018 under funding by KfW" is compiled English.

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This report “Transferring the Real Benefits to the Rural Population for the years 2015 to 2018 under funding by KfW” is compiled English.

We are also grateful to the Board of Directors of EDC for their valuable input, support and guidance in transferring the real benefits to the rural population through development of electricity in Cambodia by EDC.




KEO ROTTANAK 
Minister attached to the Prime Minister
Managing Director of EDC

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Chapter 1

Policies and Development Strategies of Electrical Energy Sector and Policies Concerning Rural Development and Utilization of Renewable Energy

1.1 Policies of Electrical Energy Sector of RGC of the Sixth Mandate of the National Assembly

Electrical energy is a vital need for the society and economy. Electrical energy, not only provides livelihood to the people engaged in its generation and/or supply, but also is an essential product to drive development of various other sectors of the nation. Therefore, development of the electrical energy sector is a crucial key to power economic growth, develop other sectors including rural sector and improve the living standards of the citizens of Cambodia. During the sixth mandate of the National Assembly, the Royal Government of Cambodia has the ambition to manage and strengthen the development of electrical energy sector in order to “reach and achieve the supply of sufficient, sustainable, reliable, quality and affordable electrical energy for all categories of consumers throughout the Kingdom of Cambodia.”

In the sixth mandate of the National Assembly within the framework of the fourth stage of Rectangular Strategies regarding the development of electrical energy sector, the Royal Government prioritizes over:

- Priority 1 - Continue to reduce the electricity price for the consumers, expand coverage of the national electricity network system to cover the whole country, increase stability and quality of electricity supply (Rectangular Strategy 2 – Angle 1);
- Priority 2 - Continue to expand the connectivity of electricity networks with low electricity price to workers, employees, students at rented accommodations (Rectangular Strategy 3 – Angle 1);
- Priority 3 - Continue to strengthen the development of the rural areas to be vibrant by continuing to invest for the expansion of affordable, sustainable and quality electricity supply to rural areas (Rectangular Strategy 4 – Angle 1);
- Priority 4 - Continue to motivate and increase the investment on sources of clean energy and renewable energy, especially solar energy, while reducing the production of energy from unclean sources in order to ensure long-term energy security (Rectangular Strategy 4 – Angle 4).

1.2 Developmental Strategies of Electrical Energy Sector of RGC as stated in the Sixth Mandate of the National Assembly

With the aim to “reach and achieve the supply of sufficient, sustainable, reliable, quality and affordable electrical energy for consumers of all types throughout the Kingdom of Cambodia,” the Ministry of Mines and Energy, an entity in charge of electrical sector of the Royal Government, has set out 9 items of strategies as follows:

1. Update the development of master plan of electricity sector in the Kingdom of Cambodia;
2. Continue the development of generation, transmission and distribution capacity of electricity to enable Cambodia to have sufficient electricity sources to meet the consumption demand, allow supply of electricity from national networks to cover all parts of the country including rural areas, and allow distribution of electricity to cover every village countrywide. With the aim of reducing poverty, promoting the level of livelihood and boosting development of economy of citizens at the rural

areas during the sixth mandate of the National Assembly, the Royal Government of Cambodia will continue to strengthen the development at the rural areas to be vibrant by continuing to invest on expansion of coverage of affordable, sustainable and quality electricity to the rural areas countrywide;

3. Strengthen the connectivity of electricity supply to premises that require electricity, especially those residences that are yet to have electricity for consumption, both at the urban and rural areas, in order to achieve the target of making electricity available to 90% of households by 2023;
4. Improve the provision of electricity supply services with the aim of enabling sufficient, round the clock, quality, safe, reliable, affordable electricity supply and having proper metering in both urban and rural areas;
5. Prepare and implement the plan to reduce electricity prices as well as study the possibility to reduce electricity price further, aiming to facilitate the citizen livelihood and promote investment in Cambodia;
6. Consolidate the mechanisms of the institutions to enable articulate and effective functioning of communications, roles, responsibilities, duties, hierarchies and independence amongst institutions and units in energy sector;
7. Attract the private [sectors] to join in the investment with Electricite du Cambodge so that there are sufficient investments in the electricity businesses but maintaining the management of Electricite du Cambodge over national networks which are core to the entire business;
8. Use Rural Electrification Fund in cross-subsidy, reduction of price discrepancy and transfer of capital to help development of remote rural areas in order to ensure equity in the access to electricity services between urban and rural areas;
9. Reduce the impact on natural and societal environments to a minimum by promoting the use of clean and sustainable energy sources to an extent that does not induce significant effect [and] join in the cooperation of energy sector in regional and internal frameworks.

Chapter 2

Information on Rural Electrification Fund

2.1 Establishment of REF

REF was first established by the Royal Decree No. NS/RKT/1204/048 on 4th December 2004 to accelerate the development of rural electrification. In the initial year, REF 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 31st January 2012 and funds were not made available to meet the operation expenses of REF. On 22nd August 2012, a new Royal Decree No. NS/RKT/0812/734 has amended some articles of the old Royal Decree on formation of REF, to integrate REF with Electricité du Cambodge (EDC) so that REF can continue to perform its works independently with Cambodian funding, 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 department¹ known as **“Department of Rural Electrification Fund (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 Organization Structure

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

2.3 Library

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.



¹ Decision No. 0898 dated September 12, 2012 on the integration of REF institution in the management structure and organization of EDC.

2.4 Address

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 www.ref.gov.kh.





2.5 The Sources of Fund

The sources of fund for REF² are as follows:

1. Social budget package provided in electricity tariff of EDC and other donations of EDC, if any.
2. Donations and grants from KfW.
3. 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).
4. Other sources from RGC.

2.6 REF's Funding and the Use of Fund

From 2015 to 2018, KfW has provided a fund of \$10.29 million to REF for extending the benefits of electrification to the population in rural area.

² Royal Decree No. NS/RKT/0812/734 dated August 22, 2012 on amendment of Article 2, Article 5, and Article 7 of the Royal Decree No. NS/RKT/1204/048 dated December 4, 2004 on the Establishment of REF, and Article 4 new of the Royal Decree No. NS/RKT/0108/064 dated January 28, 2008 on Revision of Article 4 of the Royal Decree No. NS/RKT/1204/048 dated December 4, 2004 on the Establishment of REF.

The funds received back by REF from the repayment under the three programs below has been reused by REF for the implementation of these programs in subsequent years.

REF used the fund for the implementation of the following programs:

1. Program for Power to the Poor (P2P),
2. Program for Solar Home System (SHS),
3. Program for Providing Assistance to Improve Existing and Develop Electricity Infrastructure in Rural Areas.

Chapter 3

Information on Objectives, Mission and Program of REF for Transferring the Real Benefits to the Rural Population

3.1 Objectives

The objectives of REF are as follows³:

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

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. Providing subsidy, under the framework of Strategic Planning for Reduction the Rate and Gap of the tariff for sale of the electricity in the Kingdom of Cambodia for the year 2015 to 2020 in provinces and cities, to the licensees connected to the grid system for reduction of tariff for sale of electricity in rural areas.
7. Promoting and facilitating to access electricity from the grid system for agricultural irrigation uses at concessional tariff rate for use during night time from 9:00 p.m. to 7:00 a.m and normal rate for use during day time from 7:00 a.m. to 9:00 p.m.
8. 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 Program for Transferring the Real Benefits to the Rural Population

REF is implementing the following programs:

³ Provision 3 of the Royal Decree No. NS/RKT/1204/048 dated 4 December 2004 on the establishment of REF.

3.3.1 Program for Power to the Poor (P2P)

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 in-house wiring.

3.3.2 Program for Solar Home System (SHS)

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.

3.3.3 Program for Providing Assistance to Improve Existing and Develop Electricity Infrastructure in Rural Areas

The purpose of this program is to facilitate the private electricity licensee in rural areas having legal license to access fund for investing on construction of electricity supply infrastructure to fully cover its authorized distribution area in order to allow all rural households have access to electricity for use.

3.4 Criterion for Implementation of Each Program

3.4.1 Criterion for P2P Program

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

A. Criterion for REEs

Criterion 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.
- Operating in rural area which get grid supply.
- Maintaining correct accounting statement to show the viability of their operation.
- Responsible to collect back the payment in installments from the rural household (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. Criterion for rural Household (HH)

Criterion for rural HH are as follows:

- Rural HH not yet connected to the supply system.

- Living in the existing electrified rural areas.
- Have a stable house for safety of electrification.
- Agree to payback in monthly installment within maximum period of 36 months.
- The Amount of this loan shall not exceed 480,000 Riels per household.
- 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 Criterion for SHS Program

Criterion for SHS are as follows:

A. For SHS-50Wp and SHS-80Wp materials are for sale to and installation at remote rural households

- The remote rural area, which may not have access to the electricity network for a long period and the area which may not have access to the electricity network for at least 5 years.
- Sale and installation at rural households and pagoda in rural area throughout the Kingdom of Cambodia. One HH and one pagoda are eligible for one SHS.
- Provide a subsidy of \$100 per SHS to rural households, as assistance to reduce the cost of the SHS and the cost of installation.
- The purchaser agrees to repay the remaining cost without interest of the SHS (remaining cost is the cost after deducting the subsidy of \$100 per SHS) in installments to REF within the period of 48 months. The pagoda agrees to pay the full remaining cost after deducting the subsidy at the time of installation. After the purchaser has paid the remaining cost in full, the SHS will become the property of the purchaser.
- The household can choose, the pay back of the remaining cost by any one of the 3 options: option (i) - payoff the remaining cost at the time of installation or option (ii) - payment of half-yearly installments in the beginning of each half-year within a period of 4 years or option (iii) - every two months installments within a period of 4 years.
- No down payment. The first installment is to be paid on the date of commissioning of the SHS. Subsequent installments of payment are to be paid until the amount is paid back in full. Payments are to be made to the seller or its authorized representative.
- No interest is chargeable for payment in installments.
- The transportation, installation, collection of repayment and maintenance of the SHS is through a local private firm.
- The fees for transportation, installation, collection of repayment and maintenance of the SHS are born by REF.
- The purchaser shall agree to execute the contract and other legal documents with REF.

B. For SHS-5Wp and SHS-10Wp materials are for donation to rural HHs at remote areas.

3.4.3 Criterion for Program for Providing Assistance to Improve Existing and Develop Electricity Infrastructure in Rural Areas

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 the licensee in rural areas from the local banks for investment on development of electricity infrastructure in rural areas to fully cover its authorized distribution area.

Criterion for area No. 1 is as follows:

1. The licensee 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. The licensee 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 grid or supplying power through isolated system.
4. The licensee 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. The licensee 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. The licensee shall obtain no-objection from EAC on the conditions of transfer of license to EDC in case the borrower fails to pay back on time as agreed with the bank, in the guarantee contract for loan which the licensee 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 licensee has to pay interest on the investment capital

REF will provide interest free assistance for investment on electricity infrastructure in rural areas with medium density of population.

Criterion for area No. 2 is as follows:

1. The licensee shall have valid license for providing electricity service issued by EAC and the term of the license shall be for at least 5 years from the date of application for loan.
2. The licensee shall have proper accounting record of its electricity business.
3. This budget is for investment on construction of electricity infrastructure in rural areas connected from the grid only.
4. The licensee can use this loan for investment on MV and 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. The licensee applies for interest free assistance from REF with (i) - a detailed of the project development plan, (ii) - an estimated cost of electricity materials for the project development, (iii) - the copies of the license with all revisions, (iv) - an accounting record of its electricity business, costing of existing infrastructures, (v) - the letter address to EAC seeking no-objection of EAC to transfer the licensed business to EDC in case of failure to repay the installment as provided in the contract between REF and licensee, and (vi) - any other documents required by REF to examine the proposal.
 6. REF examines the application in consultation with EAC and sanctions the appropriate amount of interest free assistance to be provided in installment and sign contract for disbursement and repayment. The amount of interest free assistance shall not exceed \$300,000 (three hundred thousand). The licensee is required to contribute at least 20% of the project costs. REF shall obtain no-objection from EAC on the conditions of transfer of license to EDC in case the borrower fails to pay back on time as agreed with REF, in the contract for interest free assistance.
 7. The licensee 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 licensee.
 8. The interest free assistance provided under this scheme will be interest free.
 9. The amount of the interest free assistance will not exceed \$300,000 per project. The licensee may request for other new project for consideration of REF when required.
 10. In the case of existing licensee, the amount of the interest free assistance will not exceed 50% of the cost of the existing electricity infrastructure of the licensee as assessed by EAC. In the case of new licensee, the amount of the interest free assistance will not exceed 60% of the cost of the proposed electricity infrastructure of the licensee as assessed by EAC.
 11. The repayment period shall not exceed 8 years or the validity of license on the date of application for assistance whichever is earlier.
 12. The licensee shall agree to execute the contract and other legal documents with REF.
 13. Source of funds is from EDC and KfW.

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. The total amount, both grant and interest free assistance, hereafter is called “budget assistance”.

Criterion for area No. 3 is as follows:

1. The licensee shall have valid license for providing electricity service issued by EAC and the term of the license shall be for at least 5 years from the date of application for loan.
2. The licensee shall have proper accounting record of its electricity business.

3. This budget assistance is for investment on construction of electricity infrastructure in rural areas connected from the grid only and which is evaluated by REF as area eligible for grant.
4. The licensee can use this budget assistance for investment on MV and LV electricity supply infrastructure in its authorized licensed area.
5. The licensee applies for interest free assistance from REF with (i)- a detailed of the project development plan, (ii)- an estimated cost of electricity materials for the project development, (iii)- the copies of the license with all revisions, (iv)- an accounting record of its electricity business, costing of existing infrastructures, (v)- the letter address to EAC seeking no-objection of EAC to transfer the licensed business to EDC in case of failure to repay the installment as provided in the contract between REF and licensee, and (vi)- any other documents required by REF to examine the proposal.
6. REF examines the application in consultation with EAC and sanctions the appropriate amount of the budget assistance to be provided in installment and sign contract for disbursement and repayment. The amount of interest free assistance shall not exceed USD 300,000 (three hundred thousand). The licensee is required to contribute at least 20% of the project costs. REF shall obtain no-objection from EAC on the conditions of transfer of license to EDC in case the borrower fails to pay back on time as agreed with REF, in the contract for budget assistance.
7. The licensee 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 licensee. The amount, provided as grant in this budget assistance by REF, is not required to be paid back.
8. The interest free assistance provided under this scheme will be interest free.
9. The amount of budget assistance will not exceed USD 300,000 per project. The licensee may request for other new project for consideration of REF when required.
10. 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 licensee as assessed by EAC. In the case of new licensee, 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 cost of the proposed electricity infrastructure of the licensee as assessed by EAC.
11. The repayment period shall not exceed 8 years or the validity of license on the date of application for assistance whichever is earlier.
12. The licensee shall agree to execute the contract and other legal documents with REF.
13. Source of funds is from EDC and KfW.

Chapter 4

Information on the Progress, Achievements and Analysis of Each Program Implemented by REF

Information on the progress, achievements and analysis of each program implemented by REF are as follow:

4.1 Program for Power to the Poor (P2P)

4.1.1 Progress, Achievement and Analysis of P2P Program

From 2015 to 2018, 14 contracts with 12 licensees for providing new connections in rural areas under P2P program have been executed by REF are funded by KfW. The total target number of connections under these 14 contracts is 3,318 rural households (HH) and the achievement is 2,721 HH.

Provincewise summary information on execution of contracts funded by KfW under P2P Program from 2015 to 2018 is given in **Annex 1**.

Out of the 14 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 contract period. 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, funded by KfW under P2P Program from 2015 to 2018 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, funded by KfW under P2P Program from 2015 to 2018

No.	Province	Contracted target number of rural HH to be connected to supply system, (HH)	Number of rural HH connected to supply system, (HH)
1	Battambang	561	561
2	Kampong Thom	103	103
3	Koh Kong	210	210
4	Kratie	705	669
5	Prey Veng	620	620
6	Pursat	162	84
7	Svay Rieng	770	287
8	Takeo	187	187
	Total	3,318	2,721

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 funded by KfW is given in **Annex 2**.

2,721 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 12,516 persons.

P2P program has provided the much needed impetus to rural HH in getting electricity for use in the rural HHs.

The challenges in implementation of P2P program are migration of borrowers abandoning the HH connected to electricity and non payment by the borrowers resulting in the unwillingness of the licensee to payback.

Provincewise total number of villages and villages in which P2P program was implemented funded by KfW under P2P Program is given in **Table 2** below:

Table 2: Provincewise total number of villages and villages in which P2P program was implemented funded by KfW under P2P Program from 2015 to 2018

No.	Province	Total number of villages (Census)	Number of villages in which P2P Program was implemented
1	Battambang	799	21
2	Kampong Thom	738	3
3	Koh Kong	117	3
4	Kratie	253	19
5	Prey Veng	1,137	28
6	Pursat	501	16
7	Svay Rieng	690	36
8	Takeo	1,119	17
Total		5,354	143

List of villages covered, under funding by KfW, by P2P Program from 2015 to 2018 is given in **Annex 3**.

Map showing the provinces in which P2P Program under funding by KfW, is implemented from 2015 to 2018 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. Chea Sokeng, license No. 346L for providing electricity service at some parts of Sambour District, Kratie Province



4.2 Program for Solar Home System (SHS)

4.2.1 Progress, Achievement and Analysis of SHS Program

To implement SHS Program, REF uses two entities for providing the service for REF (i)- firm for supplying the SHS materials and (ii)- firm for providing services of transportation, installation, collection of payback in installment and maintenance of SHS.

From 2015 to 2018 under funding by KfW, REF Implemented 4 types of SHS system, (i)- 6,000 SHS-80Wp, (ii)- 3,900 SHS-50Wp, (iii)- 4,500 SHS-10Wp, (iv)- 6,353 SHS-5Wp, including 11,450 LED 3W Lamps and 2,400 pieces of Batteries 55Ah 12Vdc.

Provincewise information on 20,753 SHS installed to rural HHs from 2015 to 2018 is given in **Table 3** below:

Table 3: Provincewise information on 20,753 SHS installed to rural HHs from 2015 to 2018

No.	Province	Number of SHS installed
SHS-80Wp		
1	Battambang	992
2	Kampong Chhnang	421
3	Preah Vihear	835
4	Siem Reap	68
5	Stung Treng	395
6	Otdar Meanchey	3,289
Total SHS-80Wp		<u>6,000</u>
SHS-50Wp		
1	Battambang	1,804
2	Kampong Chhnang	123
3	Preah Vihear	537
4	Siem Reap	479
5	Stung Treng	957
Total SHS-50Wp		<u>3,900</u>
SHS-10Wp		
1	Battambang	1,200
2	Kampong Chhnang	400
3	Kampot	200
4	Pursat	2,200
5	Stung Treng	400
6	Otdar Meanchey	100
Total SHS-10Wp		<u>4,500</u>
SHS-5Wp		
1	Battambang	1,500
2	Pursat	4,353
3	Otdar Meanchey	500
Total SHS-5Wp		<u>6,353</u>
Grand Total		<u>20,753</u>

From 2015 to 2018 under funding by KfW, 20,753 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 95,463 persons.

Provincewise total number of villages and villages were the 20,753 SHS were installed is given in **Table 4** below:

Table 4: Provincewise total number of villages and villages were the 20,753 SHS were installed from 2015 to 2018

No.	Province	Total number of villages (Census)	Number of villages access electricity through SHS
1	Battambang	799	87

2	Kampong Chhnang	562	31
3	Preah Vihear	128	24
4	Siem Reap	923	24
5	Stung Treng	229	29
6	Otdar Meanchey	245	61
Total		2,886	256

List of villages in which 20,753 SHS have been installed from 2015 to 2018 is given in **Annex 5**.

Map showing the provinces in which 20,753 SHS have been installed from 2015 to 2018 is given in **Annex 6**.

4.2.2 The challenges Faced in the Implementation of SHS Program

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 theft 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.

To resolve the challenges, REF has gone to the site for resolution through friendly mutual discussion basis.

In spite of the above challenges, the implementation of this program can be considered satisfactory.

Pictures of Solar Home Systems (SHS) installed under REF Program





4.3 Program for Providing Assistance to Improve Existing and Develop Electricity Infrastructure in Rural Areas

4.3.1 Progress, Achievement and Analysis of Program

From 2015 to 2018 under funded by KfW, REF has executed 78 contracts for providing assistance to improve existing and develop electricity infrastructure in rural areas with 65 licensees (1 licensees have executed 3 contracts nad 11 licensees have executed 2 contracts).

Provincewise information on licensees who have executed contracts, funded by KfW, with REF for getting assistance to improve existing and develop electricity infrastructure in rural areas from 2015 to 2018 is given in **Annex 7**.

Provincewise information on contracted target length of network, constructed length of network, funded by KfW, under Program for Providing Assistance to Improve Existing and Develop Electricity Infrastructure in Rural Areas from 2015 to 2018 is given in **Table 5** below:

Table 5: Provincewise information on contracted target length of network, constructed length of network, funded by KfW, under Program for Providing Assistance to Improve Existing and Develop Electricity Infrastructure in Rural Areas from 2015 to 2018

No.	Province/City	Contracted target length of network, (km)		Constructed length of network, (km)	
		Low Voltage (LV)	Medium Voltage (MV)	Low Voltage (LV)	Medium Voltage (MV)
1	Banteay Meanchey	44.10	32.00	38.50	23.00
2	Battambang	33.07	60.10	10.00	35.00
3	Kampong Cham	136.88	26.89	112.00	20.00

4	Kampong Chhnang	71.01	92.16	51.00	59.78
5	Kampong Speu	172.70	129.89	156.70	107.89
6	Kampong Thom	189.09	6.39	160.24	6.39
7	Kandal	72.62	15.10	62.10	6.08
8	Koh Kong	1.00	9.00	-	-
9	Kratie	25.00	63.00	25.00	63.00
10	Preah Vihear	101.71	15.50	70.60	-
11	Prey Veng	211.82	72.90	139.56	72.90
12	Pursat	12.00	-	6.00	-
13	Siem Reap	94.68	20.64	66.21	20.64
14	Preah Sihanouk	9.50	16.70	9.50	16.70
15	Stung Treng	-	25.00	-	25.00
16	Takeo	41.69	20.77	6.41	2.00
17	Otdar Meanchey	14.50	-	14.50	-
18	Pailin	10.00	-	-	-
19	Tboung Khmum	85.01	7.55	32.00	-
Total		1,326.38	613.59	960.32	458.38
		1,939.97		1,418.70	

Provincewise summary information on contracted target length of network, constructed length of network and present position under Program for Providing Assistance to Improve Existing and Develop Electricity Infrastructure in Rural Areas, funded by KfW from 2015 to 2018, is given in **Annex 8**.

From 2015 to 2018, 65 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 in 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 Improve Existing and Develop Electricity Infrastructure in Rural Areas, funded by KfW from 2015 to 2018 is given in **Table 6** below:

Table 6: Provincewise total number of villages and number of villages electrified under Program for Providing Assistance to Improve Existing and Develop Electricity Infrastructure in Rural Areas, funded by KfW from 2015 to 2018

No.	Province/city	Total number of villages (Census)	Number of villages access electricity
1	Banteay Meanchey	661	31
2	Battambang	799	12
3	Kampong Cham	916	45
4	Kampong Chhnang	562	33
5	Kampong Speu	1,358	113
6	Kampong Thom	738	85
7	Kandal	912	68
8	Kratie	250	4
9	Preah Vihear	229	26
10	Prey Veng	1,137	108
11	Pursat	501	1
12	Siem Reap	924	30

13	Preah Sihanouk	111	5
14	Stung Treng	128	3
15	Takeo	1,119	7
16	Otdar Meanchey	286	6
17	Tboung Khmum	865	19
Total		11,496	596

List of villages covered under Program for Providing Assistance to Improve Existing and Develop Electricity Infrastructure in Rural Areas, funded by KfW from 2015 to 2018, is given in **Annex 9**.

Map showing the provinces for which REF provided assistance to improve existing and develop electricity infrastructure in rural areas, funded by KfW from 2015 to 2018, is given in **Annex 10**.

4.3.2 Site Inspection Activities on Implementation of Program

To ensure that the implementation of Program for Providing Assistance to Improve Existing and 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, before construction and after construction of electricity network, are shown pictorially below.

Mr. Khun Sopheap (Project 3) having license No. 159L for Providing Electricity Service at Some parts of Khum Me Pring and Khum Batheay, Batheay District, Kampong Cham

Before construction of electricity network site





After construction of electricity network site



Annex 1
Provincewise summary information on execution of contracts funded by KfW under P2P Program from 2015 to 2018

Province	Area of supply	License No.	Name of Licensee	Source of Supply
Battambang	Some parts of Bavel and Thmar Kol District	282L	Mrs. Soeurn Sophornnara	EDC
	Some parts of Khum Chheuteal, Banan District	117L	Mr. Dong Ly	EDC
	Some parts of Chen Meanchey, Banan District	330L	Mr. Lonh Sovan	EDC
Kampong Thom	Khum Kampong Svay, Kampong Svay District	387L	Mrs. Houch Chrep	BVC Power Development
Koh Kong	Some part of Thmar Baing District, Khum Chikhor Leu, Sre Ambel District and Khum Trapaing ROUNG Koh Kong District	418L	Mrs. Chheng Touch	EDC
Kratie	Khum Kaoh Ta Suy, Khum Ta Mau, and Some parts of Khum Chambak, Khum Ruessei Kaev, Preaek Brasab District	217L	Mr. Heang Pov (Project 3)	EDC
		217L	Heang Pov Enterprise (Project 4)	EDC
	Some parts of Sambour District	346L	Mrs. Chea Sokeng	EDC
Prey Veng	Some parts of Me Sang and Ba Phnum Districts	336L	Mr. Heang Phally (Project 2)	EDC
Pursat	Krakor District Town and some parts of Khum Kanhchor, Kandieng District	125L	SVVT Electricity (Project 3)	EDC
Takeo	Khum Som, Kiriving District	258L	Mr. Snguon Saran	Mr. Mak Khom
	Khum Prey Yutka, Koh Andet District and Khum Chouk Chey, Borey Cholasas District	373L	Mr. Choun Tom	Electricity Kirivong Enterprise
Svay Rieng	Some part of Kampong Rou and Chantrea District	268L	Mr. Khan Siden (Project 3)	EDC
	Some part of Kampong Rou and Chantrea District	268L	Mr. Khan Siden (Project 4)	EDC

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 funded by KfW under P2P Program from 2015 to 2018

Province	License No.	Name of Licensee	Contracted target number of rural HH to be connected to supply system, (HH)	Number of rural HH connected to supply system, (HH)	Remark
Battambang	117L	Mr. Dong Ly	101	101	Disbursed
	282L	Mrs. Soeurn Sophornnara	200	200	Disbursed
	330L	Mr. Lonh Sovan	260	260	Disbursed
Koh Kong	418L	Mrs. Chheng Touch	210	210	Disbursed and Project Closed
Kratie	217L	Mr. Heang Pov (Project 3)	108	108	Disbursed
		Heang Pov Enterprise (Project 2)	500	-	On going
	346L	Mrs. Chea Sokeng	97	97	Disbursed and Project Closed
Kampong Thom	387L	Mrs. Houch Chrep	103	103	Disbursed
Prey Veng	336L	Mr. Heang Phally (Project 2)	620	620	Disbursed
Pursat	125L	SVVT Electricity (Project 3)	162	84	Disbursed and Project Closed
Svay Rieng	268L	Mr. Khan Siden (Project 3)	250	250	Disbursed
		Mr. Khan Siden (Project 4)	520	37	Disbursed and Project Closed
Takeo	258L	Mr. Snguon Saran	47	47	Disbursed
	373L	Mr. Choun Tom	140	140	Disbursed
Total			3,318	2,721	

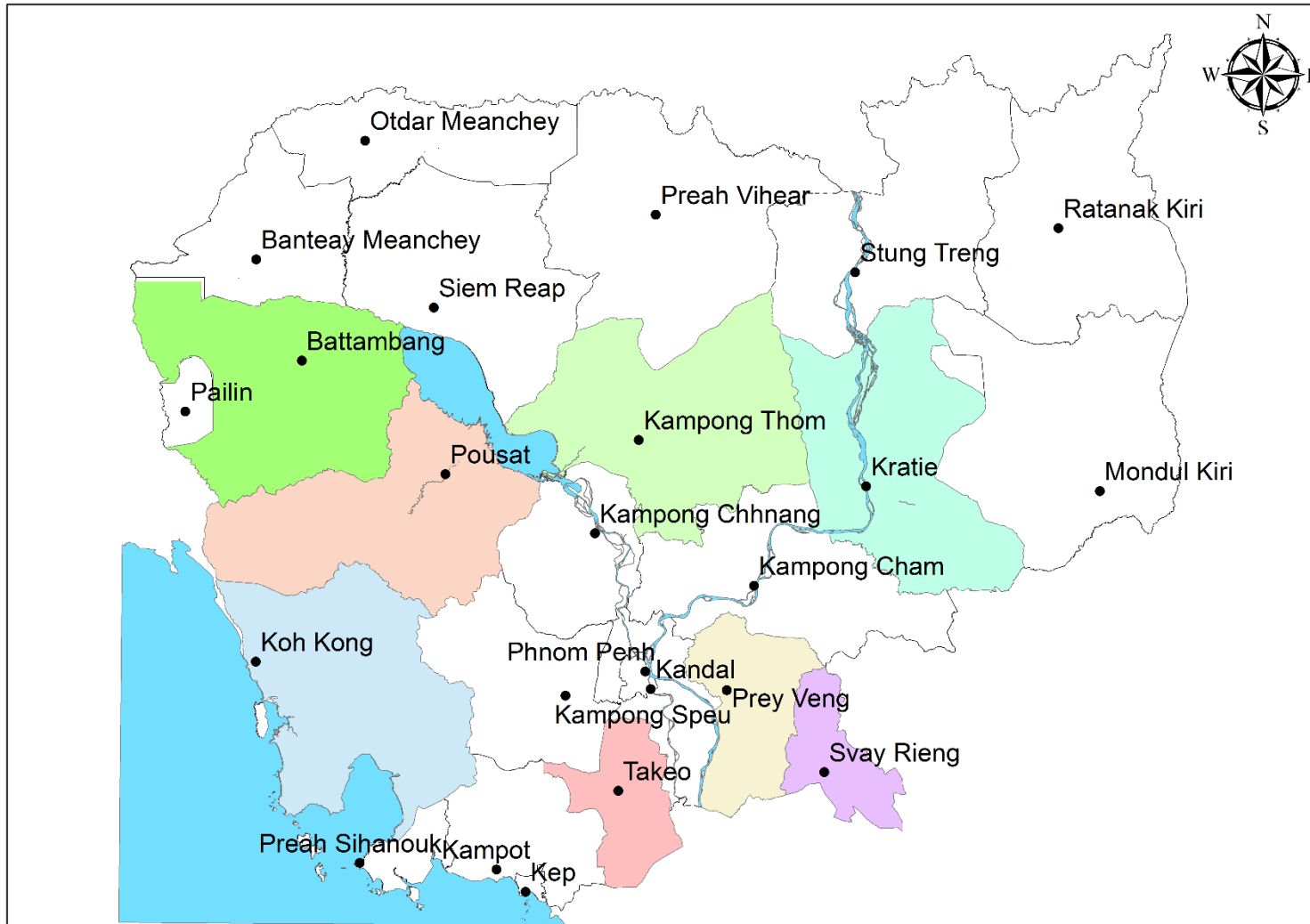
Annex 3
List of villages covered, under funding by EDC and KfW, by P2P Program from 2015 to 2018

No.	Province	Number of villages in which P2P program was implemented	Commune	District	License No.	Licensee
1	Battambang	Anlong Tamei, Chamkar Svay, Chhok Po	Chheuteal	Banan	117L	Mr. Dong Ly
		Brakheab	Rung Chrey	Thma Koul	282L	Mrs. Soeurn Sophornnara
		Seang Reang, Daun Kaev	Bavel	Bavel		
		Boeng Samrong	Lvea			
		Ballangk Leu, Ballangk Mean Chey, Koah Ream, Khnach Romeas, Prey Sangha, Svay Sor, Rung Ampil	Khnach Romeas			
		Sambour Meas	Snoeng	Banan	330L	Mr. Lonh Sovan
		Bos Knol, Thor, ROUNG, Chong Ou Svay, Kampong Koul, Cheng	Cheng Meanchey			
2	Kampong Thom	Chong Prey, Tnaot, Theam Chas	Kampong Svay	Kampong Svay	387L	Mrs. Houch Chrep
3	Koh Kong	Kamlot, Choam Sla, Chi Phat	Chi Phat	Thma Bang	418L	Mrs. Chheng Touch
4	Kratie	Boeng Rei, Srour Lav Damnak, Ruessei Kaev, Svay Chrum	Ruessei Kaev	Preaek Brasab	217L	Mr. Heang Pov (Project 3)
		Chroy Ampil 1, Chroy Thmor, Chambak 1, Chambak 2, Chroy Ampil 2	Chambak			
		Preaek Svay, Kro Horm Krom, Kro Horm Leu, Ta Mau Krom, Ta Mau Kandal	Ta Mau			
		Srae Treng, O-Po, Bang Horb, O Ta Neung, Srae Sbov	Kbal Damrey	Sambour	346L	Mrs. Chea Sokeng
5	Prey Veng	Thmei, Kro Saing	Chi Phoch	Ma Sang	336L	Mr. Heang Phally (Project 2)
		Trapeaek Phlong, Trapeaek Phreah 2, Bareach, Sonnloung Leab, O-Sang Ke, Russei Chochork, Kros, Robos Phchet, Lpov, Sanlong, Ta Mao, Russei Tvea, Keo Sna, Svay Cho, Prey Khnes(b)	Prey Khnes			
		Chanra(a), Chanra(b), Prey Prorng, Prey Sva, Thlork	Speu (b)	Ba Phnum		
		Kandal, Dei Thoy, Ta Ma, Svay Tani, Ang Krorng, Ta Mao	Beung Pheah			
6	Pursat	Puth Tream, Ou Ach Kok, Kraing Thom, Ou Sandan,	Ou Sandan	Krokor	125L	SVVT Electricity

		Daong Chour, Kneung, Ou Tabrok, Chongklornrg				(Project 3)		
		Chi Ches, Veal Vong, Savoan, Svar Sor, Sna Ansa, Ansor Kdam, Kraing Veng	Sna Ansa					
		Kampong Leu	Kbal Trach					
7	Svay Rieng	Chantrea, Kok Teaek	Chantrea	Chantrea	268L	Mr. Khan Siden (Project 3)		
		Trarpeang Thlork, Daun Nouy, Trapeang Run, Bonla Sa-ith, Trapeang Dear Krom, Banla S’edth	Chres					
		Tuol Sdei, Daun Tei	Tuol Sdei					
		Kaoh Kban Khang Cheung	Samraong					
		Kandal, Pou Ma-Orm, Boun	Tnaot	Kampong Rou				
		Saek Chrum, Prey Tlork, Prey Preus	Svay Ta Yean					
		Svay, Prey Mnas, Prey Pneath, Ta Poar, Svay Chaek, Samlei Khang Tbong, Samlei Khang Cheung, Prey Pha-Av, Samlei	Samlei					
		Trarpeang Kampeus, Prey Ta Ngouy, Khsaetr, Prey Sang Ke, Trork, Sa Mor, Prey Cha	Khsaetr					
		Prey Mnas, Samlei Khang Tboung	Samlei	Kampong Rou			268L	Mr. Khan Siden (Project 4)
		Teng Mao, Sen Tor, Kouk Taek, Chantrea	Chantrea	Chantrea				
8	Takeo	Trapaing Porn Tuek, Tuol Pongro, Sre Keas, Preal, Thmei, Pingpong, Saom, Deum Angkuol, Deum Rumdel, Tunloab	Saom	Kiri Vong	258L	Mr. Snguon Saran		
		Ta Phin, Prey Buy, Ta Ngim, Pong Andeak, Ta Phan, Ta Heang	Prey Yuthka	Kaoh Andaet	373L	Mr. Choun Tom		
		Ta Ra Kum	Chey Chouk	Borei Cholsar				
	Total	143	31	15				

Annex 4

Map showing the provinces in which P2P Program under funding by KfW, is implemented from 2015 to 2018



Annex 5
List of villages in which 20,753 SHS have been installed from 2015 to 2018

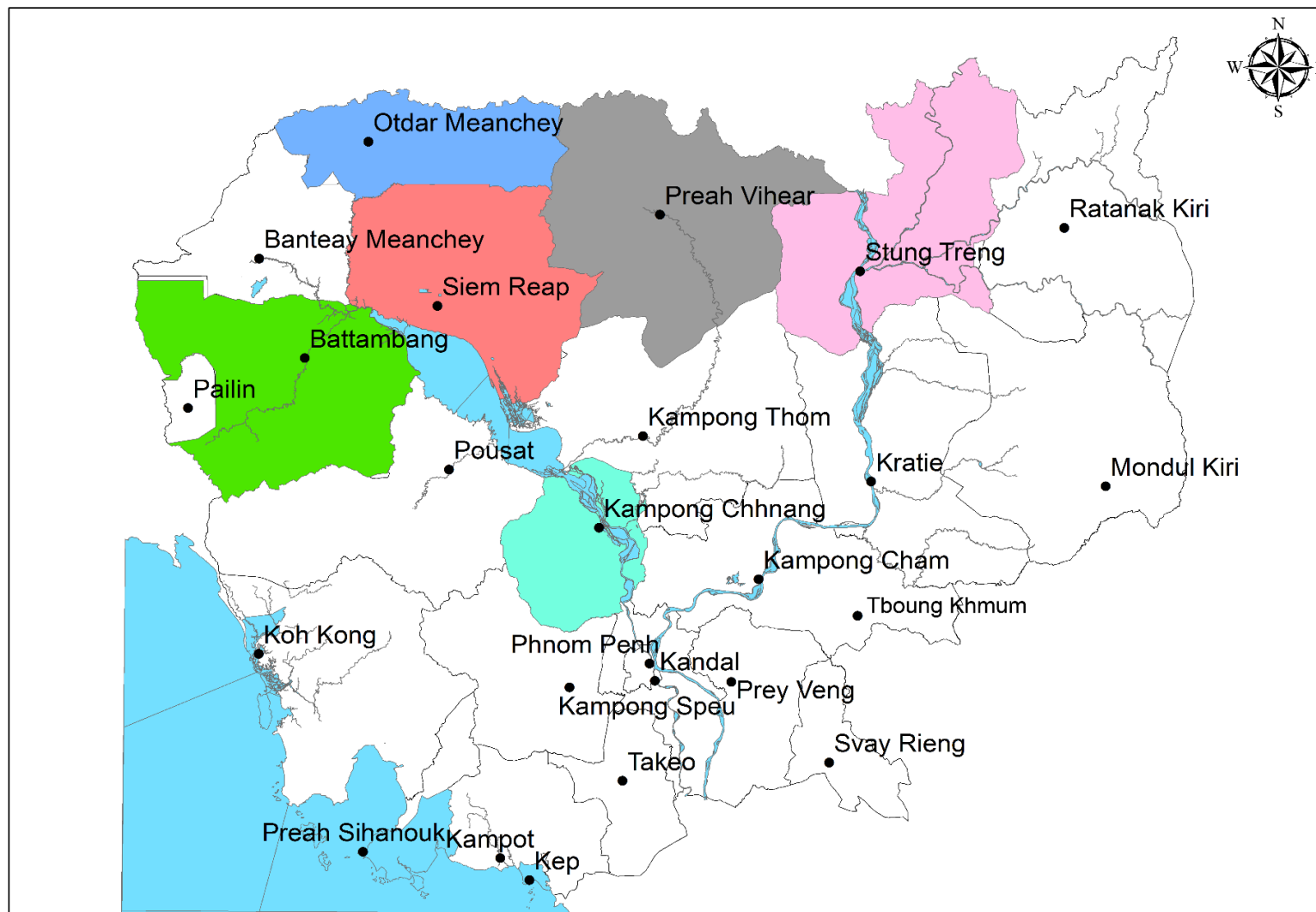
No.	Province	Number of villages access electricity through SHS	Commune	District
1	Battambang	Ta Khor,	Preas Phos	Koas Krala
		Prey Totung	Chhnal Mean	
		Kouk Roka, Anlong Mien, Rieng Tieng	Doun Ba	
		Ta Pung Tboung	Ta Pung	Thma Koul
		Thmei	Bansay Traeng	
		Anlong Run	Chhrey	
		Sophy	Anlong Run	Bavel
		Boeng Krala, Boeng Thoung, Krapue Seaseb, Boeng Pram, Yuth Tek Thor, Boeng Areak, Ou Ruessei, Samnang Preah Srey, Chey Chum Neas	Boeng Pram	
		Prey Thom,	Khleang Meas	
		Tumnub Tuek	Bavel	
		Prey Khpous, Mak Kleur	Prey Khpous	
		Thmei, Boeng Popoul, Boeng Snoul, Sthapor Pei	Ampil Pram Daeum	Banan
		Thmei	Kantueu Muoy	
		Phnom Kol, Thmei	Kantueu Pei	
		Kampong Korl, Chaeng, Toul Thnong, Thoar, Boss Khnol, Roung	Chaeng Mean Chey	
		Boeng Krosal	Snoeng	
		Ta Ngaen, Slab Pang	Ta Kream	Rukhak Kiri
		Chumnaob Korkir	Sdok Praveuk	
		Prek Mohatep	Svay Por	Krong Bat Dambang
		Phnom Sampov	Preaek Preah Sdach	
		Brasoeng	Prey Touch	Moung Ruessei
		Bos Pouy	Moung	
		Anlong Trach	Robas Mongkol	
		Ta Krouk, Burun	Traeng	Rotonak Mondol
		Kandal Stung	Andaeuk Haeb	
		Resmay Sangha, Ou Khmum , Badak Tbong	Rasmey Sangha	

		Sambok Aok	Kampong Prieng	Sangkae
		Kampong Preah	Kampong Preah	
		Boeng Toem	Ta Pun	
		Chhouk Tradork	Roka	
		Damnak Dang Kor, Toul Snoul	Reang Ksei	
		Prey Thom, Stung Toch, Ou Choam Krom, Ou Chaom Kandal, Ou Chaom Leu, Ou Deum Chek, Kandal, Kampong Lpov, Svay Chrum, , Veal Chambang, Kalong Mai Koung	Kampong Lpov	Samlout
		Ou Totoem, Daun Treuk, Anlong Pork	Ta Sanh	
		Chamlong Romaing Krom, Chamlong Romaing Leu, Veal Chhmar	Ou Samrel	
		Kanchaing, Kandal	Sung	
		Samlout	Samlout	
		Ou Traeng Ou Ta Teak, Phnom Rey, Ta Taok, Peam, Peam Ta, Vil Rolim, Ou Nounong, Ou Kroch	Ta Taok	
		Prek Trop	Prek Narin	Ek Phnom
		Bak Prear, Peam Seima	Prey Chas	
2	Kampong Chhnang	Kaoh Sleng, Kou Chrum, Bort Trang	Kaoh Thkov	Chol Kiri
		Kien Ta Ma, Kampong Aos, Thmey, Kampong Ous Cheung	Kampong Aos	
		Kampong Khlach, Ruessei Dang Kouch	Chol Sar	
		Phlong	Peam Chhkaok	
		Kang Meas, Kaoh Keo, Kampong Rang	Svay Chrum	Rolea B'ier
		Preaek Sala	Tuek Hout	
		Chun Leav, Prey Sampov	Prasnoeb	
		Prey Pear	Chhuk Sa	Kampong Tralach
		Phnom Ta Sam, Trapeang Mlou	Krang Skear	Tuek Phos
		Chhnok Tru, Seas Slab	Chhnok Tru	Baribour
		Tuek Chraeb	Pech Changvar	
		Damrei Khoun, Anhchanh Rung	Anhchanh Rung	
		Kaoh Ta Mov, Preaek Spean, Stoeng Chrouv	Kampong Preah Kokir	
		Krang Samraong, Kiri Akphivoadth, Royeas	Chhean Laeung	Sameakki Mean Chey
		Chrok Kov	Peam	

3	Preah Vihear	Choam Khsant, Chheu Teal Korng, An Ses, Veal Pou ,Veal Thom	Choam Khsant	Choam Khsant
		Stung Khiev, Thaomcheat, Bangkoul Pram Bei, Stung Khiev Tekcho, Tekcho Bous Sbov, Sen Chey	Sra Eam	
		Robonh, Saen Rung Roeung Pir, Rung Roeung Bei, Rung Roeung Boun, Sen Tekcheas, Dechchor Morkaot	Morakord	
		Morakord Tekcho, Kantout, Sok Sen Chey, Char	Kantout	
		Sras Mlis, Saen Rung Roeung Pram	Tuek Kraham	
		Kom Prak	Yeang	
4	Siem Reap	Rolum Run Thmei, Lvea	Srae Nouy	Varin
		Kanhchon Roun	Prasat	
		Sras Khvav	Tbaeng	Banteay Srei
		Lbeuk, Ta Kam, Prasat Char, Rohal, An Ngoun	Doun Kaev	Puok
		Chan Ta Say, Choukchrey, Khcheay	Sasar Sdam	
		Kambou Or, Chung Spean, Ou	Khvav	Chi Kraeng
		Prumkot	Ballangk	Prasat Bakong
		Reach Chuntaol	Srae Khvar	Angkor Chum
		Ta Peur, Ou Rung	Ta Siem	Svay Leu
		Chhes Chan, Bitpka, Rolum Touk	Svay Leu	
		Srae Robang	Boeng Mealea	
		Ou Ta Kok	Kantout	
5	Stung Treng	Koah Praeh, Srae Krasaing	Kaoh Preah	Siem Bouk
		Koah Kroch	Srae Krasang	
		Kaing Daek, Sma Kaoh, Phuol, Svay	Kaoh Sralay	
		Kaoh Chrim, Tbong Kla, Ou Chalorng, Ampil Pir, Ou Mreas	Ou Mreah	
		Tun Saong, Siem Bouk, Ou Leng	Siem Bouk	
		Srae Beng, Ou Ruessei Kandal	Ou Ruessei Kandal	
		Koah Snaeng, Koah Sralav, Koah Kei, Chamthom	Kaoh Snaeng	Thala Barivat
		Ou Run, Ou Svay, Koah Haeb, Veunsean, Koah Phnov	Ou Svay	
		Ph'av, Veal Pou, Anlong Phe	Anlong Phe	
6	Otdar Meanchey	Ta Dev, Toek Chub, Tuol Svay Saen Chey, Tun Nob, Ou Sramor, Thmei, Trapeang Tav, Ou Ang'rae, Tuol Prasat	Trapeang Tav	Anlong Veng

		Chaom, Cheung Phnum, Tuek Chum, Tumnub Leu, Boeng, Santhipheap, Ou Kra'Nhoun, Sammakki	Trapeang Prei	
		Thmei, Tuol Kralach, Tuol Prasat, Ou Run, Ou Sralav, Tuol Prich, Chheu Teal Chrum,	Thlat	
		Kouk Sampor, Char, Rohal, Chub Ta Mouk Saen Chey, Trapeang Thum, Tnal Dach, Lumtong Chas, Sralav Sroung, Ou Kokir Kandal, Ou Kokir Kraom, Ou Kokir Leu	Lumtong	
		Tumnub Akphivoadth, Popel Senchey, Ou Svay, Peam Knong, Tasam	Ou Svay	Trapeang Prasat
		Tamout Meanchey, Tnal Kheng, Preah Chambak, Ph'av, Ruessei, Khnorng Tuol Meanchey	Ph'av	
		Trampaong, Prasat Kraham, Trapeang Bei, Trampaong Tbound	Preah Pralay	
		Rolum Tbal, , Srae Krasang, Dei Kraham, Tekcho Akphivoadth, Srae Kandal, Ou Saom, Ou Rumdeng, Tumnub Thmei, Ou Trach, Pean Meas, Tnal Keng	Trapeang Prasat	
		256 Villages	89 Communes	29 Districts

Annex 6
Map showing the provinces in which 20,753 SHS have been installed from 2015 to 2018



Annex 7

Provincewise information on licensees who have executed contracts, funded by KfW, with REF for getting assistance to Improve existing and develop electricity infrastructure in rural areas from 2015 to 2018

Province/ city	Area of supply	License No.	Name of Licensee	Source of Supply
Banteay Meanchey	Some part of Mongkul Borei District, Preahnet Preah District	105L	TNNT Electricity Co., Ltd* (Project 4)	EDC
			TNNT Electricity Co., Ltd* (Project 3)	EDC
	Some part of Khum Chamnom, Khum Soeur, Mongkul Borei District	324L	Mrs. Khiev Sokha* (Project 5)	EDC
	Some part of Svay Chek and Thmar Puok Districts	379L	Mrs. Keo Chhorvy (Project 3)	EDC
	Khum Nam Tao, Phnom Srok District	401L	Mr. Tan Leang Sreng	EDC
Battambang	Some part of Thmar Kol District	105L	TNNT Electricity Co., Ltd* (Project 4)	EDC
			TNNT Electricity* (Project 3)	EDC
	Some part of Banan and Sangke Districts	244L	K.R.Y Trading Co., Ltd	EDC
	Khum Lvea, Bovil District and Khum Rong Chrey, Thmarkol Districts	324L	Mrs. Khiev Sokha* (Project 5)	EDC
	Some part of Samlot, Ratanak Mondul and Kaskalar Districts	392L	ASDVM Co., Ltd (Project 2)	EDC
			ASDVM Co., Ltd (Project 3)	EDC
	Some part of Koas Krala District	404L	Mr. Heng Chanthavy* (Project 2)	EDC
Kampong Cham	Some parts of Prey Chhor, Kang Meas, Chamkar Leu, Stung Trang and Kampong Siem Districts	023L	Mekong Smart Power* (Project 3)	Electricity Skon-Chamkarleu
			Mekong Smart Power* (Project 5)	
	Some part of Cheung Prey District	047L	Sor Malis Electricity Enterprise (Project 3)	Electricity Skon-Chamkarleu
	Some parts of Khum Me Pring and Khum Batheay, Batheay District	159L	Mr. Khun Sopheap (Project 3)	Electricity Skon-Chamkarleu
	Some parts of Srei Santhor	335L	Mrs. Khun Naykieng* (Project 2)	TPLC Holdings
			Mrs. Khun Naykieng* (Project 4)	TPLC Holdings
Kampong Chhnang	Some parts of Boribou District	040L	M.H Electyricity (Project 6)	OSVR Trading
	Some parts of Rolea B’ier District	095L	Mrs. Chan Simoly (Project 2)	OSVR Trading
			Mrs. Chan Simoly (Project 3)	OSVR Trading
	Some parts of Tuek Phos District	119L	Mr. Un Sothea (Project 6)	OSVR Trading

	Some parts of Kampong Tralach, Sameakki Mean Chey, Tuek Phos, Rolea B'ier and Baribour Districts	300L	OSVR Trading (Project 6)	EDC
			OSVR Trading (Project 11)	EDC
	Khum Ampil Teuk and some parts of Khum Kampong Tralach, Kampong Tralach District	400L	Mr. Hong Sengkry	EDC
Kampong Speu	Some parts of Samraong Tong and Odongk Districts	137L	Meng Sok Leng Construction and Electric* (Project 3)	EDC
			Meng Sok Leng Construction and Electric* (Project 4)	EDC
			Meng Sok Leng Construction and Electric* (Project 6)	EDC
	Some parts of Odongk, Thpong and Samraong Tong Districts	155L	Sahakreas Aphivath Akisni Samrethkiry (Project 4)	EDC
			Sahakreas Aphivath Akisni Samrethkiry (Project 5)	EDC
	Some parts of Korng Pisey, Samraong Tong, Basedth, Phnum Sruoch District	224L	Sokha Electricity Co., Ltd** (Project 4)	EDC
	Some parts of Odongk District	278L	Akisny Chrey Loas*** (Project 3)	Meng Sok Leng Construction and Electric
Kampong Thom	Some parts of Basedth District	386L	Mr. Ung Khunvathanak (Project 3)	Sokha Electricity Co., Ltd
	Some part of Baray and Santuk District	006L	Pheng Keang Electricity Pte (Project 2)	BVC Power Development
	Some parts of Baray District	023L	Mekong Smart Power* (Project 5)	Electricity Skon-Chamkarleu
	Some parts of Stoung District	063L	Mr. Ong Hoksine	BVC Power Development
	Stoung District	111L	Mr. Kong Vun* (Project 2)	KTC Cable
			Mr. Kong Vun* (Project 4)	KTC Cable
	Khum San Kor and Khum Tbeng, Kampong Svay District	228L	T.K.T.D Electricity Enterprise (Project 3)	BVC Power Development
	Some part of Prasat Balaing and Kampong Svay Districts	368L	Miss. Tan Kimbouy	BVC Power

				Development
			Miss. Tan Kimbouy (Project 2)	BVC Power Development
	Some part of Kampong Svay and Prasat Balang Districts	387L	Mrs. Pen Channa (Project 2)	BVC Power Development
Kandal	Some parts of Angsnuol District	137L	Meng Sok Leng Construction and Electric* (Project 3)	EDC
			Meng Sok Leng Construction and Electric* (Project 4)	EDC
			Meng Sok Leng Construction and Electric* (Project 6)	EDC
	Some parts of Keansvay, Sa-Ang and Lvea Em Districts	150L	Akissni Keansvay (Project 2)	EDC
	Some part of Kadal Steung District	174L	Electricity Pout Sor Enterprise* (Project 2)	LMK
	Special Purpose Transmission and Distribution Service at Khum Prek Kompoeus and Khum Cheung Keub, Kandal Stoeung District	223L	LMK (Project 2)	EDC
	Some part of Angsnoul District	261L	Sahakreas Aphivath Akisni Chunabort*	EDC
	Some parts of Kandal Stung	266L	Mrs. Sor Sa Un	LMK
	Some parts of Khsach Kandal and Lvea Em District	272L	Sahakreas Akisani Kampong Chamlong Bakdav*	TPLC Holdings
	Some parts of Ponhealeu and Ang Snuol Districts	278L	Akisny Chrey Loas** (Project 3)	Meng Sok Leng Construction and Electric
	Some parts of Khsach Kandal District	335L	Mrs. Khun Naykieng* (Project 2)	TPLC Holdings
			Mrs. Khun Naykieng* (Project 4)	
	Some parts of Lvea Em District	355L	Mr. Chhor Veng Ngoun* (Project 2)	EDC
Koh Kong	Some parts of Khum Boeung Phreav, Sre Ambil District	279L	Mr. Khun Chantharith*	EDC
	Some part of Thmar Baing District, Khum Chkhor Leu, Sre Ambel District and Khum Trapaing Rong, Koh Kong District	418L	Mrs. Chheng Touch (Project 3)	EDC
Kratie	Some parts of Sambour District	395L	Mrs. Khun Sokgach* (Project 2)	EDC
			Mrs. Khun Sokgach* (Project 4)	EDC

			Mrs. Khun Sokgach* (Project 5)	EDC
Phnom Penh	Khan Posenchey	261L	Sahakreas Aphivath Akisni Chunabort*	EDC
	Khan Prek Pnov	278L	Akisny Chrey Loas** (Project 3)	Meng Sok Leng Construction and Electric
Preah Vihear	Some part of Sangkum Thmey, Roveang, Tbeng Meanchey, Chey Saen Districts and Krong Preah Vihear	329L	Mrs. Teang Bonika	BVC Power Development
			Mrs. Teang Bonika (Project 2)	BVC Power Development
	Some part of Kulen District	334L	Mr. Chak Sean (Project 3)	BVC Power Development
	Khum Ronak Ser and Some part of Khum Sdauv, Sangkum Thmey District	364L	Mrs. Teng Kimsreang	EDC
	Some parts of Chheb, Chey Sen, and Roveing Districts	409L	Mr. Eng Sotheavatana	EDC
Prey Veng	Special Purpose Transsmission Service at Along the National Road No. 8 from Border of Cambodia-Vietnam to Kamchay Mear, Svay Antor and Pearaing Districts	259L	Inter BP Solution Corporation (Project 2)	EDC
			Inter BP Solution Corporation (Project 3)	EDC
	Some part of Mesang District	269L	Mr. Kong Yorn (Project 3)	EDC
	Pearang District	272L	Sahakreas Akisani Kampong Chamlong Bakdav*	TPLC Holdings
	Khum Svay Chrum, Khum Prey Totueng, and Some parts of Khum Chres, Me Sang District	320L	Mr. Thouk Samean	EDC
	Some parts of Kampong Trabaek, Ba Phnum, and Me Sang District	343L	Nhem Horn Electrical Co., Ltd	EDC
	Some parts of Porieng and Pearaing Districts	355L	Mr. Chhor Veng Ngoun* (Project 2)	EDC
	Khum Svay Chrum, Mesang District	438L	Mr. Run Sovann	EDC
Pursat	Khum Ta Lou, Bakan District	332L	Mr. Nhean Vatana	EDC
	Some part of Veal Veng District	404L	Mr. Heng Chanthavy* (Project 2)	EDC
Siem Reap	Some parts of Chikreng District	111L	Mr. Kong Vun* (Project 2)	KTC Cable
			Mr. Kong Vun* (Project 4)	KTC Cable
	Some part of Sotnikum, Chikreng and Svay Leu Districts	183L	Mrs. Meas Keav (Project 3)	KTC Cable

	Some part of Svay Leu District	229L	Mr. Khean Kev (Project 2)	EDC
	Some parts of Banteay Srey District, Khum Sre Nouy, Varin District, Some parts of Khum Kantuot, Svay Leu District	240L	Mrs. Long Kimheng* (Project 2)	EDC
	Some part of Srey Snam and Kralanh District	311L	Mrs. Heng Symuy (Project 3)	EDC
	Khum Khvav, Chikreng District and some parts of Svay Leu District	426L	Mr. Laing Neang (Project 2)	EDC
Preah Sihanouk	Some parts of Kampong Sela	279L	Mr. Khun Chantharith*	EDC
Stung Treng	Some parts of Siem Bouk, Sesan District and Stung Treng City	395L	Mrs. Khun Sokgach* (Project 2)	EDC
			Mrs. Khun Sokgach* (Project 4)	EDC
			Mrs. Khun Sokgach* (Project 5)	EDC
Takeo	Some part of Bati and Prey Kabas District	118L	Bati Electricity Enterprise (Project 2)	LMK
	Some part of Tramkork District	121L	Mr. Nget Soda	EDC
			Mr. Nget Soda	EDC
	Some part of Bati District	174L	Electricity Pout Sor Enterprise* (Project 2)	LMK
	Some parts of Baty District	224L	Sokha Electricity Co., Ltd** (Project 4)	EDC
	Some part of Khum Kampeng, Prey Kabas District and Khum Ponley, Angkor Borey District	238L	Mr. Hou Veasna (Project 2)	LMK
	Khum Preyphkoam, Angkor Borey District	273L	Mr. Chea Sovannara	LMK
Otdar Meanchey	Some parts of Anlong Veng	240L	Mrs. Long Kimheng* (Project 2)	EDC
	Some parts of Chong Kal District and Krong Samraong	388L	Mrs. Khiev Sophal (Project 2)	EDC
Pailin	Some part of Salakrao District and Krong Pailin	009L	M.S.P Development Co., Ltd	EDC
Tboung Khmum	Some parts of Tboung Khmum and Ou Reang Ov Districts	085L	Electricity Tbong Khmum Enterprise (Project 7)	EDC
	Khum Popel, Ponheakrek District and Some part of Danbe District	308L	Mrs. Phin Thai (Project 2)	EDC
	Khum Chhouk, Krouch Chhmar District and Some part of Danbe District	339L	Mr. Thov Ny (Project 3)	EDC

Note: * Area of supply in 2 provinces and ** area of supply in 3 provinces.

Annex 8

Provincewise summary information on contracted target length of network, constructed length of network and present position under Program for Providing Assistance to Improve Existing and Develop Electricity Infrastructure in Rural Areas, funded by KfW from 2015 to 2018

Province/city	License No.	Name of licensee	Contracted target length of network (km)		Constructed length of network (km)		Remark
			LV	MV	LV	MV	
Banteay Meanchey	105L	TNNT Electricity Co., Ltd* (Project 3)	12.50	-	12.50	-	Disbursed
		TNNT Electricity Co., Ltd* (Project 4)	16.00	23.00	16.00	23.00	Disbursed
	324L	Mrs. Khiev Sokha* (Project 5)	3.60	-	-	-	On going
	379L	Mrs. Keo Chhorvy (Project 3)	2.00	9.00	-	-	On going
	401L	Mr. Tan Leang Sreng	10.00	-	10.00	-	Disbursed
Battambang	244L	K.R.Y Trading Co., Ltd	7.60	8.00	-	-	On going
	392L	ASDVM Co., Ltd (Project 2)	10.00	35.00	10.00	35.00	Disbursed
		ASDVM Co., Ltd (Project 3)	15.47	17.10	-	-	On going
Kampong Cham	023L	Mekong Smart Power* (Project 3)	31.00	-	31.00	-	Disbursed
		Mekong Smart Power* (Project 5)	35.00	-	35.00	-	Disbursed
	047L	Sor Malis Electricity Enterprise (Project 3)	24.88	6.89	-	-	On going
	159L	Mr. Khun Sopheap (Project 3)	4.00	5.00	4.00	5.00	Disbursed
	335L	Mrs. Khun Naykieng* (Project 2)	30.00	-	30.00	-	Disbursed
		Mrs. Khun Naykieng* (Project 4)	12.00	15.00	12.00	15.00	Disbursed
Kampong Chhnang	040L	M.H Electyricity (Project 6)	0.90	1.42	-	-	On going
	095L	Mrs. Chan Simoly (Project 2)	8.20	1.78	8.20	1.78	Disbursed
		Mrs. Chan Simoly (Project 3)	9.11	0.96	-	-	On going
	119L	Mr. Un Sothea (Project 6)	17.00	28.00	17.00	28.00	Disbursed
	300L	OSVR Trading Co., Ltd (Project 6)	8.00	30.00	8.00	30.00	Disbursed
		OSVR Trading (Project 11)	6.00	30.00	-	-	On going
	400L	Mr. Hong Sengkry	21.80	-	17.80	-	Disbursed
Kampong Speu	137L	Meng Sok Leng Construction and Electric* (Project 3)	37.00	20.00	37.00	20.00	Disbursed
		Meng Sok Leng Construction and Electric* (Project 4)	43.00	16.00	43.00	16.00	Disbursed

		Meng Sok Leng Construction and Electric* (Project 6)	16.00	22.00	-	-	On going
	155L	Sahakreas Aphivath Akisni Samrethkiry (Project 4)	13.79	3.25	13.79	3.25	Disbursed
		Sahakreas Aphivath Akisni Samrethkiry (Project 5)	6.91	7.44	6.91	7.44	Disbursed
	224L	Sokha Electricity Co., Ltd** (Project 4)	23.00	33.00	23.00	33.00	Disbursed
	386L	Mr. Ung Khunvathanak (Project 3)	33.00	28.20	33.00	28.20	Disbursed
Kampong Thom	006L	Pheng Keang Electricity Pte (Project 2)	8.84	1.39	8.84	1.39	Disbursed
	063L	Mr. Ong Hoksine	19.60	5.00	19.60	5.00	Disbursed
	228L	Mr. Saeu Tienkok	19.00	-	19.00	-	Disbursed
		T.K.T.D Electricity Enterprise (Project 3)	20.93	-	15.45	-	Disbursed
	368L	Miss. Tan Kimbouy	53.00	-	33.35	-	Disbursed
		Miss. Tan Kimbouy (Project 2)	29.30	-	29.30	-	Disbursed
	387L	Mrs. Pen Channa (Project 2)	38.42	-	34.70	-	Disbursed
Kandal	150L	Akissni Keansvay (Project 2)	21.00	-	21.00	-	Disbursed
	223L	L.M.K (Project 2)	24.40	-	24.40	-	Disbursed
	261L	Sahakreas Aphivath Akisni Chunabort*	5.71	9.02	-	-	On going
	266L	Mrs. Sor Sa Un	5.87	-	5.87	-	Disbursed
	278L	Akisny Chrey Loas** (Project 3)	15.64	6.08	10.83	6.08	Disbursed
Koh Kong	418L	Mrs. Chheng Touch (Project 3)	1.00	9.00	-	-	On going
Kratie	395L	Mrs. Khun Sokgach* (Project 4)	20.00	34.00	20.00	34.00	Disbursed
		Mrs. Khun Sokgach* (Project 5)	5.00	29.00	5.00	29.00	Disbursed
Preah Vihear	329L	Mrs. Teang Bonika	63.00	9.00	47.00	-	Disbursed
		Mrs. Teang Bonika (Project 2)	2.50	6.50	-	-	On going
	334L	Mr. Chak Sean (Project 3)	12.61	-	-	-	On going
	364L	Mrs. Teng Kimsreang	5.60	-	5.60	-	Disbursed
	409L	Mr. Eng Sotheavatana	18.00	-	18.00	-	Disbursed
Prey Veng	259L	Inter BP Solution Corporation (Project 2)	55.00	18.00	15.00	18.00	Disbursed
		Inter BP Solution Corporation (Project 3)	19.10	21.60	-	21.60	Disbursed and on going

	269L	Mr. Kong Yorn (Project 3)	3.04	-	-	-	On going
	272L	Sahakreas Akisani Kampong Chamlong Bakdav*	2.89	-	2.89	-	Disbursed
	320L	Mr. Thouk Samean	47.50	-	46.70	-	Disbursed
	343L	Nhem Horn Electrical Co., Ltd	34.56	23.30	29.76	23.30	Disbursed
	355L	Mr. Chhor Veng Ngoun* (Project 2)	23.00	10.00	23.00	10.00	Disbursed
	438L	Mr. Run Sovann	26.73	-	22.21	-	Disbursed
Pursat	332L	Mr. Nhean Vatana	6.00	-	6.00	-	Disbursed
	404L	Mr. Heng Chanthavy* (Project 2)	6.00	-	-	-	On going
Siem Reap	111L	Mr. Kong Vun* (Project 2)	10.90	-	10.90	-	Disbursed
		Mr. Kong Vun* (Project 4)	15.27	-	-	-	On going
	183L	Mrs. Meas Keav (Project 3)	12.00	-	-	-	On going
	229L	Mr. Khean Kev (Project 2)	16.00	-	16.00	-	Disbursed
	240L	Mrs. Long Kimheng* (Project 2)	14.00	10.50	14.00	10.50	Disbursed
	311L	Mrs. Heng Symuy (Project 3)	23.33	-	22.13	-	Disbursed
	426L	Mr. Laing Neang (Project 2)	3.18	10.14	3.18	10.14	Disbursed
Preah Sihanouk	279L	Mr. Khun Chantharith*	9.50	16.70	9.50	16.70	Disbursed
Stung Treng	395L	Mrs. Khun Sokgach* (Project 2)	-	25.00	-	25.00	Disbursed
Takeo	118L	Bati Electricity Enterprise (Project 2)	2.78	15.48	-	-	On going
	121L	Mr. Nget Soda	14.95	-	-	-	Project Closed
		Mr. Nget Soda	14.95	-	-	-	On going
	174L	Electricity Pout Sor Enterprise* (Project 2)	6.41	2.00	6.41	2.00	Disbursed
	238L	Mr. Hou Veasna (Project 2)	-	0.95	-	-	On going
	273L	Mr. Chea Sovannara	2.60	2.34	-	-	On going
Otdar Meanchey	388L	Mrs. Khiev Sophal (Project 2)	14.50	-	14.50	-	Disbursed
Pailin	009L	M.S.P Development Co., Ltd	10.00	-	-	-	On going
Tboung Khmum	085L	Electricity Tbong Khmum Enterprise (Project 7)	32.00	-	32.00	-	Disbursed
	308L	Mrs. Phin Thai (Project 2)	19.16	7.55	-	-	On going
	339L	Mr. Thov Ny (Project 3)	33.85	-	-	-	On going
	Total		1,326.38	613.59	960.32	458.38	
			1,939.97		1,418.70		

Note: * Area of supply in 2 provinces and ** area of supply in 3 provinces.

Annex 9
List of villages covered under Program for Providing Assistance to Improve Existing and Develop Electricity Infrastructure in Rural Areas, funded by KfW from 2015 to 2018

No.	Province/City	Village	Commune	District	License No.	Licensee
1	Banteay Meanchey	Chamkar Lok, Phnum Thom Thmei	Ou Prasat	Mongkol Borei	105L	TNNT Electricity* (Project 3)
		Ou Sngaout, Prey Changha Lech, Andoung Lech, Andoung Keut	Banteay Neang			
		Chum Teav	Ruessei Kraok			
		Preah Srae, Kla Kam Chhae	Ta Lam			
		Cha Thmei, Kh'av, Thmei, Ta Sorl	Kouk Ballangk	Mongkol Borei	105L	TNNT Electricity* (Project 4)
		Boeng Veng	Ta Lam			
		Lor, Sambour, Sras Chhouk, Srae Prey, Thmar Dorb	Sambour			
		Ka Bau	Phnum Lieb	Preah Netr Preah	401L	Mr. Tan Leang Sreng
		Thnoung Khang Tboung, Samraong, Pongro, Nam Tau, Kantourt, Chrab, Kouk Yieng, Kouk Chas, Thmei Khang Cheung, Thmei Khang Tboung, Sleng	Nam Tau	Phnum Srok		
2	Battambang	Chamlang Kraom, Ou Rumchek Kraom, Ou Samrel Leu, Ou Rumchek Leu, Ou Samrel Kraom,	Ou Samrel	Samlout	392L	ASDVM Co., Ltd (Project 2)
		Sre Reach, Chamkar Chek, Kandal, Sung Muoy, Sung Pir	Sung			
		Samlout Boeng Run, Kantuot	Samlout			
3	Kampong Cham	Doun Lei, Mrenh	Kor	Prey Chhor	023L	Mekong Smart Power* (Project 3)
		Prasat Khvet Touch, Tuek Nuem, Trapeang Sangke	Chrey Vien			
		Kok, Kok Kandal, Tro Mukh Ti Pir, Doung	Tong Rong			
		Trapeang Chi Neang, Kouk Trea Lech, Kouk Trea Keut	Lvea			

		Krouch	Samraong	Prey Chhor	023L	Mekong Smart Power* (Project 5)		
		Sek Yum	Prey Chhor					
		Chres	Baray					
		Prey Totoeng	Chrey Vien					
		Bravas, Vatchas, Koma Reach, Chheubak, Chounlaot Day, Traeung	Boeng Nay					
		Tonlesar	Trapeang Preah					
		Trapeang Beng, Vatchas, Raong Kou, Kouk Sralau	Baray					
		Ta Ong	Ta Ong	Chamkar Leu	159L	Mr. Khun Sopheap (Project 3)		
		Tuol	Batheay	Batheay				
		Trea, Pou, Svay	Svay Pou	Srei Santhor			335L	Mrs. Khun Naykieng* (Project 2)
		Treas, Khnar Sa, Khvet, Kngaok, Ampil	Khnar Sa					
		Khting	Tong Tralach					
		Cheung Doek, Chi Pray, Kdei Thkar, Pram Yam	Pram Yam					
		Slaeng, Khsaong	Chi Bal					
		Prey Tbeh	Preaek Pou	Srei Santhor	335L	Mrs. Khun Naykieng* (Project 4)		
		Svay	Svay Pou					
		Pram Yam, Cheung Deuk	Pram Yam					
4	Kampong Chhnang	Andoung Chous, Trapeang Trach, Chearov, Prey Khmer	Rolea B'ier	Rolea B'ier	095L	Mrs. Chan Simoly (Project 2)		
		Kouk Banteay, Spouk Reach	Kouk anteay					
		Andoung Svay	Andoung Svay					
		Krang Skear, Ta Sam	Krang Skear	Tuek Phos	119L	Mr. Un Sothea (Project 6)		
		Veal Sbov, Roumeas	Tang Krasang					
		La Peang	Ta Ches	Kampong Tralach	300L	OSVR Trading Co., Ltd (Project 6)		
		Damnak Kei, Sre Sar	Cheung Kreav	Rolea B'ier				
		Thmar Reap, Cheung Kao	Banteay Preal					
Kouk Sdav, Ou Sandan Thmei, Ou Sandan Chas	Tuek Hout							

		Krang Leav, Boeng Vang, Sre Veal, Chralong Kok	Krang Leav			
		Preah Ream reangsei	Chrey Bak			
		Trapeang Kravan, Trapeang Ta Sok	Prey Mul			
		Kbal Koah, Ka’Ek Pong, Bek Chan, Kla Kraham, Bak Phnum, Veal Sbov, Kien Khlengk	Ampil Tuek			
5	Kampong Speu	Kouk Phnov, Chak Kambit, Dak Pou	Vao Sa	Samraong Tong	137L	Meng Sok Leng Construction and Electric* (Project 3)
		Bak Chen Chien, Bach Kangkeb, Trakeat, Thmar Bang, Rumdoul, Tuol Prech	Trapeang Kong			
		Raong Kou, Changkrandek, Andoung	Samraong Tong			
		Trapeang Veng Mouy, Trapeang Veng Pit, Kor, Sdok Pring, Praek Ta Chab, Trapeang Kantourt, Ampil Tuek, Thmar Kol, Angkhmau, Ta Pou, Trapeang Ruessei, Kob Chen	Sambour	Odongk	137L	Meng Sok Leng Construction and Electric* (Project 4)
		Pal Hal, Doeuk Pieng	Chant Saen			
		Raong Damrei	Phnum Touch			
		Ou Kraing Ambil, Prey Pdau, Trapeang Kchong, Rumlong, Sour Kae, Chheu Teal Leu	Trapeang Kong	Samraong Tong	137L	Meng Sok Leng Construction and Electric* (Project 4)
		Lor Kchoung, Ampil Tuek	Sambour			
		Lor Khpoub Khpos, Tuol, Chaork, Krang Doung, Trapeang Chouy, Kong Loeng	Prey Krasang			
		Saram	Peang Lvea	Odongk	155L	Sahakreas Aphivath Akisni Samrethkiry (Project 4)
		Yous Chea, Chres	Cheung Roas			
		Prey Tien	Yuth Sameakki			
		Chraok Popoul, Prey Tunsay	Chumpu Proeks			
		Tang Krasang, Pouthi	Phneay	Samraong Tong	155L	Sahakreas Aphivath Akisni Samrethkiry (Project 5)
		Sras Thoul, Trapeang Thum	Yuth Sameakki	Odongk		
		Kandal	Peang Lvae			
		Chbar Chous, Ak Yum, Ang	Krang Chek			
		Chum Tub Maon, Chambak Run	Damnak Reang			
		Sarikakeo, Chres	Cheung Raos			

		Chek, Krang Khlung, Trapeang Leu	Sdok	Kong Pisei	224L	Sokha Electricity Co., Ltd** (Project 4)			
		Prey Kanhchan, Prey Ngoung, Trapeang Phlong	Pheari Mean Chey	Basedth					
		Trapeang Damri, Trapeang Kas, Traok Veng, Thlok Kandal	Saen Dei	Samraong Tong					
		Sre Phsar, Anlong Popeay, Ou Tamneap, Trapeang Krasang	Krang Ampil						
		Prey Pradak, Prey Kdei,Trapeang Leaph, Kampok, Mon	Thummoda Ar						
		Prey Kampoung	Kahaeng						
		Tonloab, Trapeang Ta Luong, Prey Rongear	Skuh						
		Ta Minh, Kralanh, Krang Thnal, Krang Chachat, Chrak Trach	Moha Sang	Phnum Sruoch					
			Toap Mreak, Trapeang Teab, Cheung Phnum, Trapeang Chhuk, Ta Reach, Krang Traok	Kak	Basedth	386L	Mr. Ung Khunvathnak (Project 3)		
			Beong, Trapeang Prei, Khlouk, Khnang, Trapeang Veng, Thnal Dach	Preah Khae					
			Phsar Trapeang Phos, Trapeang Phos, Ta Prach, Tuol Khcheay, Khpob Veng, Kanlang, chas	Basedth					
			Trapeang Peuk, Thlok Bei, Prey Sampoar, Veal Lvieng, Phnum Koub, Roka Thom, Roka Kaong, Sambour Meas	Kat Phluk					
			6	Kampong Thom	Daun Ben	Boeng	Baray	006L	Pheng Keang Electricity Pte (Project 2)
					Doung, Sralau Taong	Ballangk			
					Ta Brok, Chaom Trach	Chhuk Khsach			
					Ta char, Trea, Veal, Hab, Sam Kaok, Chrang Sa, Leab Tong	Trea	Stoung	063L	Mr. Ong Hoksine
Tnaot	Kampong Chen Cheung								
Preah Neangkoal, Sampoar	Chamnar Kraom								
		Tnaot Kom, Pophluk, Pradet, Ou Rumchek, Krasang Chrum Cheung, Lvea, Kouk Snay,	Samprouch						

7	Kandal	Krasang Chrum Tbound, Ampil, Samprouch, Doun La, Pey				
		Krasang Ka, Krasang Kha, San Kor Kha, Prasat	San Kor	Kampong Svay	228L	Mr. Saeu Tienkok
		Tbeng Ka, Tbeng Kha, Ressei Cheah	Tbaeng			
		Ampil	San Kor	Kampong Svay	228L	T.K.T.D Electricity Enterprise (Project 3)
		Chheu Teal, Sranhea, Ou Ambeng, Ta Am, Boeng Andeaeng, Phloulk, Po, Tram Kla	Tbaeng			
		Prohout, Kranhoung, Prey Mari, Phdeak, Sramar, Suchous	Phan Nheum	Prasat Ballangk	368L	Miss. Tan Kimbouy
		Anlong Chour, Kra Ya Tbound, Kra Ya Cheung, Bous Thom, Baray	Kraya			
		Ou Khchorng, Sakream Khang Tbound, Sakream Khang Cheung, Veal Tnal, Trapeang Pring, Bam Artith	Sakream			
		Daun Chhouk, Nipechr Ko, Nipechr Khor	Nipechr	Kampong Svay	368L	Miss. Tan Kimbouy (Project 2)
		Mongkol, Mongkol Sla, Kob Thlok, Damrei Slab, Vor Yeav	Damrei Slab			
		Stoung	Phan Nheum	Prasat Ballangk		
		Anlong Lok	Prey Kuy	Kampong Svay	387L	Mrs. Pen Channa (Project 2)
		Ta Am, Chrang Kraham, Ta Pong, Ou Sala, Chong Prey	Kampong Svay			
		Ta Theav, Mou Hor, Trapeang Areaks, Lvae, Prey Tub	Chey			
		Ath Sour, Cheay Sampau, Ou Krou Kae	Sambour	Prasat Sambour		
		Chamnar, Dang Anleak, Chey	Sala Visai	Prasat Ballangk		
		Anlong Kraviek, Beng, Lumhach, Boeng Tnal, Trapeang Kark, Chamkar Chen, Trapeang Tnaot, Chheu Boun	Mkak	Angk Snuol	137L	Meng Sok Leng Construction and Electric* (Project 3)
		Rumdech, Angkor Meas	Mkak	Angk Snuol	137L	Meng Sok Leng

		Titouy Pong, Chantrea Thmei, Lvi	Tuol Prech			Construction and Electric* (Project 4)
		Sereipeab, Traing Trach, Trapeang Chhouk, Kdan Rouy	Damnak Ampil			
		Praeak Doung, Kampong Svay	Kampong Svay	Kien Svay	150L	Akissni Keansvay (Project 2)
		Rotaeang	Phum Thum			
		Slab Ta Oun, Chunlok Krau	Kokir			
		Sdau Kanlaeng	Dei Edth			
		Kchom, Kandal Leu, Kandal Krom	Banteay Daek			
		Ruessei Chrouy, Preaek Ta Chou	Svay Prateal	S'ang	174L	Electricity Pout Sor Enterprise* (Project 2)
		Kampong Talong, Srok Chek	Boeng Khyang	Kandal Stueng		
		Choulong	Tbaeng	Kandal Stueng	223L	L.M.K (Project 2)
		Praeak Kampues, Preaek Tloeng, Krang Svay, Srey Snom, Damnak Sangkae	Praeak Kampues			
		Krapeu Troum, Preah Thieat	Roluos	Khsach Kandal	335L	Mrs. Khun Naykieng* (Project 4)
		Praeak Prasab	Praeak Prasab			
		Chey Toch, TaKeat Lech, Preaek Thmei	Chey Thum	Kandal Stueng	266L	Mrs. Sor Sa Un
		Ampov Prey Bei, Ta Dourk Mouy, Ta Dourk Pir, Ta Dourk Bei	Ampov Prey			
		Chrey Young, Svay Prey	Kandok	Lvea Aem	272L	Sahakreas Akisani Kampong Chamlong Bakdav*
		Prey Kong Reach, Preaek Rey	Praeak Rey			
		Praeak Ta Prang	Phum Thum	Khsach Kandal		
		Tuol Pongro	Sithor			
		Tbong Damrei, Preaek Dambong	Kampong Chamlang			
		Chrouy Khsach, Bak Dav Leu, Bak Dav Krom	Bak Dav	Ponhea Lueu		
		Tang Sdok, Chhveang, Kakab, Svay, Pongro, Sdok Ta Chan, Prasat, Sleng, Srae Ambil, Preaek Phcheuk, Ta Ork	Chhveang			
8	Kratie	Ou Chralang	Ou Krieng	Sambour	395L	Mrs. Khun Sokgach* (Project 2)
		Ou Preah	Ou Krieng	Sambour	395L	Mrs. Khun Sokgach*

		Srae Chhouk	Roluos Mean Chey			(Project 4)
		Ou Krieng	Ou Krieng	Sambour	395L	Mrs. Khun Sokgach* (Project 5)
9	Preah Vihear	Rumchek, Phnum Deaek, Srae Thnounge	Romoneiy	Rovieng	329L	Mrs. Teang Bonika
		Trapeang Toteum, Tuol Rovieng, Ou Trolouk	Romtum			
		Svay Pat, Tnot Kaong, Kouk Ampil, Dei Krahorm, Tuol Ampil	Rumdaoh			
		Kork Poun, Saraong	Raksa			
		Anlong Svay, Krang Daung	Preah Khleang	Tbaeng Mean Chey		
		Dar, Pratheat, Tbeng	Chamraeun	Sangkum Thmei		
		Ta Su	Tasu	Chey Saen	364L	Mrs. Teng Kimsreang
		S'ang	S'ang			
		Soch	Sdau	Sangkum Thmei		
		Trapeang Rang	Ronak Ser	Chhaeb		
		Sangkae, Sra'Em	Sangkae Mouy			
		Chheb Lech	Chhaeb Mouy			
		Dong Phlit	Chhaeb Pir			
10	Prey Veng	Daun Yo	Chea Khlang	Svay Antor	259L	Inter BP Solution Corporation (Project 2)
		Trabeak Lech, Taream Keut, Taream Lech	Angkor Tret			
		Andoung Sala, Trapeang Thlan Tboung, Kouk Roka, Trapeang Thlan Cheung, Tuol Tnaot	Preal	Kanhchriech		
		Krous, Boeng Anhchach, Ampeang	Kdoeang Reay	Kamchay Mear		
		Praha, Chumpou, Damnak Serei, Prey Chamkar	Smaong Khang Tboung			
		L'ak, Trapeang Skun, Poun	Smaong Khang Cheung			
		Ou, Tuol Ta Meaks, Trapeang Prei, Chambak Kaong, Trapeang Kampeus	Trabaek			
		Prey Ta Prum, Svay, Trapeang Kranh, Trapeang	Preal	Kanhchriech	259L	Inter BP Solution

		Tim				Corporation (Project 3), 1 st Payment
		Prey Tbal	Chong Ampil			
		Krous	Kdoeang Reay			
		Tboung Wat	Krabau			
		Trapeang Prei, Tralach Sa, Daun Diev	Trabaek			
		Boeng Kak, Prey Ta Mok Thmei, Trapeang Dang Heut, Chuor Ph'av	Doun Koeng			
		Krang Chambak	Pean ROUNG			
		Preaek Chhous, Preaek Ta Sar	Preaek Ta Sar	Svay Antor		
		Kampong Prang, Ta Roath, Lvea Kaong, Sambour, Peak Sbeaek	Kampong prang			
		Trapeang Kdam, Prey Totuen, Prey Mul, Prey Chrum, Boeng, Phav, Ampil Toul, Sampoar	Prey Totueng	Pea Reang	272L	Sahakreas Akisani Kampong Chamlong Bakdav*
		Andoung Ta Sren, Mean Chey, Prey Roka, Traok, Prey Sakum, Boeng Antong	Chres			
		Svay Tong, Sre Rean, Preah Andoung, Boeng Antong, Chong Tuol	Svay Chrum			
		Tbeng, Russei	Thkov	Me Sang	320L	Mr. Thouk Samean
		Doung	Chrey			
		Prey Krang, Chi Peay, Beng, Chi Ak	Prey Poun			
		Pech Roatn, Prey Samroung, Chi Peay Krang Leav, Ka Thom	Cham			
		Cheang Dek, Ta Meas, Ponhea Keut, Krouch, Prey Rumlong, Angkrong, Krang Veng, Oknha Soeng, Thnoeng	Cheang Daek			
		Sla, Prey Meas, Tnaot, Lvea, Chrey Krahim	Kampong Ruessei	Kampong Trabaek	343L	Nhem Horn Electrical Co., Ltd
		Pou Rieng Cheung, Pou Rieng Tboung	Pou Rieng			
		Bakdork, Anlong Trea	Preaek Chrey			
		Tnal Keng, Chek, Chrey Rou Ling, Savang, Trae, Phnaet, Pouthi Tamum, Svay Tieb, Svay	Svay Chrum	Pea Reang	355L	Mr. Chhor Veng Ngoun* (Project 2)
			Pou Rieng			
			Me Sang	438L	Mr. Run Sovann	

		Otdom, Srae Rien, Svay Tong, Angkae Dei, Boeng Anlong				
11	Pursat	Prahal	Ta Lou	Bakan	332L	Mr. Nhean Vatana
12	Siem Reap	Tato, Doun Sok	Kouk Thlok Kraom	Chi Kraeng	111L	Mr. Kong Vun* (Project 2)
		Sandan	Chi Kraeng			
		Prey Totoeng, Kbal Kdouch, Ballangk, Kouk Pumpil, Rumchey Chous	Lveaeng Ruessei			
		Rolum Touk	Svay Leu	Svay Leu	229L	Mr. Khean Kev (Project 2)
		Trapeang Pel	Ta Siem			
		Lvea Krang, Kouk Wat, Samot, Rolum Run Thmei	Srae Nouy	Varin	240L	Mrs. Long Kimheng* (Project 2)
		Slat, Chum Num Reach, Kouk Chas, Rovieng Thmei, Kouk Khnang	Srae Khvar	Angkor Chum	311L	Mrs. Heng Symuy (Project 3)
		Khvay, Kouk, Khan Sar, Daun Mien, Takuoy	Koul			
		Kouk Thmei, Reul, Prey Khyaong, Kouk Chambak	Krouch Kou	Kralanh		
		Lvea	Moung	Srei Snam		
		Ou	Khvav	Chi Kraeng	426L	Mr. Laing Neang (Project 2)
13	Preah Sihanouk	Cham Srey	Kampong Seila	Kampong Seila	279L	Mr. Khun Chantharith*
		Stoeng Chras, Prey Braseth	Ou Bak Roteh			
		Samdech Ta, Boeng Trach	Chamkar Luong			
14	Stung Treng	Tboug Khla, Koh Chruem, Ou Mreah	Ou Mreah	Siem Bouk	395L	Mrs. Khun Sokgach* (Project 2)
15	Takeo	Tbaeng	Lumpong	Bati	174L	Electricity Pout Sor Enterprise* (Project 2)
		Trapeang Trau, Chambak, Krouch, Prey Lvea, Krang Pouthi, Khlaeng Sambath	Pot Sar			
16	Otdar Meanchey	Taben, Kouk Samrech, Rolumveng, Koul	Pongro	Chong Kal	388L	Mrs. Khiev Sophal (Project 2)
		Kouk Trang, Tanouk	Cheung Tien			
17	Tboug Khmum	Tuol Vihear, Tuol Boeng Tral	Chirou Ti Pir	Tboug Khmum	085L	Electricity Tboug Khmum Enterprise (Project 7)
		Ta Uy, Chouy Sralau	Tonle Bet			

		Andoung Lve, Tuol Treall Cheung, Chrak Chambak, Veal Kandieng	Chob			
		Chrouy Changva, Trapeang Krapeur	Mong Riev			
		Tuol Mean Chey, Thmei Kandal, Thmei Leu, Tuol Sambour, Kbal Tuek, Basrey, Tnal Kaeng, Tuol Pnau, Phnum	Preah Theat	Ou Reang Ov		
Total		596 Villages	74 Communes	54 Districts		

Annex 10
**Map showing the provinces for which REF provided assistance to improve existing and develop electricity infrastructure
in rural areas, funded by KfW from 2015 to 2018**

