

Half-Yearly Report (August 2016-February 2017) on warranty expired battery collection and new battery distribution under IDCOL's SHS program

(Based on IDCOL Inspection)

Infrastructure Development Company Limited (IDCOL) promotes dissemination of Solar Home Systems (SHS) in the rural areas of Bangladesh under its Renewable Energy Program with the financial support from different development partners. IDCOL started the program in January 2003. At present, IDCOL implements the program through 56 partner organizations (POs).

One of the major equipment used in the SHS is the lead acid battery. Generally, the warranty for lead acid battery is 5 (five) years, but the life time may vary due to different usage pattern or other operational issues. Collection of these warranty expired and damaged batteries are very important for ensuring proper recycling and preventing environmental hazards.

IDCOL has developed a monitoring system for getting the status of collection and recycling lead acid batteries by the partner organizations (POs).

From August 2016-February 2017, IDCOL inspected 7,970 SHSs with warranty expired batteries (5 Years old). Out of which, 91.2% systems the battery were not replaced. It was observed during inspection that among the not-replaced batteries- 80% were functioning well, 14% were not in good condition but still functioning and 6% were not functioning due to the total damage, systems return and system not found (Table 1 and 2).

Remaining 8.8% of expired batteries were replaced by the POs and other organization (Table 3).

From table 4, it was observed that 84.20% of the warranty expired batteries were collected by the POs and non POs.

Half-yearly (August 2016-February 2017) summary tables are given below:

Table 1: Report on Inspection of Warranty Expired Battery For the period of August 2016-February 2017

	GS	RSF	SRIZONY	IDF	UBOMUS	PDBF	Total
Number of SHS Inspected	7018	477	54	357	56	8	7970
Battery Replaced (PO/Other)	593	28	11	65	4	0	701
Battery Not Replaced	6425	449	43	292	52	8	7269
SHSs with Battery not Replaced (%)	92%	94%	80%	82%	93%	100%	91%

Table 2: Total Battery are not Replaced:

	GS	RSF	SRIZONY	IDF	UBOMUS	PDBF	Total	%
Battery in Good Condition	5114	350	33	232	49	5	5783	80%
Battery in Bad Condition (Functional)	885	77	8	38	0	0	1008	14%
Battery in Bad Condition (Non-Functional)	319	10	0	22	3	0	354	6%
System Return	37	10	0	0	0	3	50	
System not Found	70	2	2	0	0	0	74	
Total	6425	449	43	292	52	8	7269	100%

Table 3: Total Expired- Battery Replaced:

	GS	RSF	SRIZONY	IDF	UBOMUS	PDBF	Total
Replaced by POs	233	4	0	6	0	0	243
Replaced by Non- POs	360	24	11	59	4	0	458
Total	593	28	11	65	4	0	701

Table 4: Warranty expired batteries collected by POs and non POs::

	GS	RSF	SRIZONY	IDF	UBOMUS	PDBF	Total	%
Old Battery Collected by POs	206	4	0	0	0	0	210	84.20%
Old Battery Collected by Non POs	304	21	8	0	4	0	324	
Total	510	25	8	0	4	0	547	

Table 5: Expired Battery not collected by POs and non POs:

	GS	RSF	SRIZONY	IDF	UBOMUS	PDBF	Total	%
Old Battery not Collected by POs	36	0	0	6	0	0	42	15.80%
Old Battery not Collected by Non POs	47	3	3	59	0	0	112	
Total	83	3	3	65	0	0	154	