

## Annex E – Installation checklist Solar Direct Drive refrigerator (SDD)

**Note: The installation technician must fill in this checklist for each completed installation.**

Solar refrigerator installation checklist		Date:
Country:	Region:	
Installation technician: Installation company: Address: Tel: Email:		
<i>Note: All checks must be satisfactory before Annex E can be signed / the installation is deemed completed.</i>		
<b>CHECK 1 – System description</b>		
1.1	Qualified supplier:	
1.2	Refrigerator Model: Serial number: _____ Model reference: _____ Product number: _____	
1.3	Solar panels: Model Ref: _____                      Quantity of panels: _____ Serial numbers                      _____                      _____ Serial numbers                      _____                      _____ Serial numbers                      _____                      _____ Serial numbers                      _____                      _____	
<b>CHECK 2 – Shipment details</b>		
2.1	Was the shipment damaged?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.2	Were any components missing or under-supplied?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2.3	Have damaged/missing/under-supplied parts been replaced?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not applicable
	<i>Comments:</i>	
<b>CHECK 3 – Solar panel installation</b>		
3.1	Panel Orientation	
	Has the panel been installed at the correct angle towards the equator?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Do shadows fall on the panel between 9:00am and 3:00pm?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If YES, the system FAILS - if possible remove the shade or the panel must be moved.</b>		
3.2	Panel support structure	
	Are roof fixings in place and are they adequate?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Have theft-deterrent fasteners been used?	<input type="checkbox"/> Yes <input type="checkbox"/> No
3.3	Lightning protection:	
	Has the lightning protection circuit been correctly fitted?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Has the earth electrode been correctly fitted?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	Has lightning protection system been tested for electrical continuity?	<input type="checkbox"/> Yes <input type="checkbox"/> No
	<i>Comments:</i>	

<b>CHECK 4 – Array cabling and installation</b>		
4.1	Only the solar array cable provided by supplier was used for installation?	<input type="checkbox"/> Yes <input type="checkbox"/> No
4.2	Are all electrical connections and array cables concealed and properly protected?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<i>Comments:</i>		
<b>CHECK 5 – Functionality test</b>		
5.1	Functionality test has been carried out in accordance with the qualified supplier's instructions.	<input type="checkbox"/> Yes <input type="checkbox"/> No
5.2	A detailed functionality test report been completed and signed by the technician; a copy of the report is attached.	<input type="checkbox"/> Yes <input type="checkbox"/> No
5.3	30-day temperature logger has been installed and is functional.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> RMTD
5.4	There is sufficient GSM coverage at the health facility.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not relevant
<i>Installation Technician confirmation on functionality</i>		
<i>Installation Technician Signature:</i> _____		
<b>CHECK 6 – Training</b>		
6.1	Number of health facility staff trained in usage of refrigerator	
6.2	Number of staff trained in preventive maintenance of refrigerator	
6.3	Number of staff trained in usage of 30 DTR / recording of temperature	
6.4	Warranty / claims procedure has been explained, including whom to contact in case of under-performance or downtime of equipment.	<input type="checkbox"/> Yes <input type="checkbox"/> No
6.5	Warranty / claims procedure and relevant contacts are attached to the fridge.	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>CHECK 7 – Documentation</b>		
7.1	Check if the following documentations are supplied	Language:
	- User manual for all system components	<input type="checkbox"/> Yes <input type="checkbox"/> No
	- Technician's manual	<input type="checkbox"/> Yes <input type="checkbox"/> No
	- Installation manual	<input type="checkbox"/> Yes <input type="checkbox"/> No
<i>Comments:</i>		
<b>CHECK 8 – Overall conclusions and recommendations</b>		
8.1	Recommendation:	<input type="checkbox"/> <b>Pass</b> <input type="checkbox"/> <b>Fail</b>
If FAIL, list outstanding work still required:		
If PASS, the installation can be handed over to the user.		
Installation technician signature: _____		
Health center responsible signature: _____		
Name and designation: _____		
Rubber Seal Of the Health facility/ District Health officer		
Date: _____		

## Warranty/claims procedure

**Note: Contractor to fill in based on country specifics.**

**A printout of the completed document should remain in each HF, attached to the fridge, clearly visible.**

## Final commissioning

**Note: To be left with the Health Facility Worker to be completed for each installation after the first 30 days of operation. Contractor to agree with PMT on process and include instruction letter from EPI.**

<b>Refrigerator 30-day test checklist (SDD)</b>		<b>Date:</b>
<b>Country:</b>	<b>City/town:</b>	<b>Site name:</b>
<p><b>Instructions for completing this form:</b></p> <p>Complete the form 30 days after the refrigerator was handed over to you.</p> <p>Send a copy of the form back to _____ <i>(to be confirmed by EPI / PMT, please add)</i></p> <p>Attach a copy of the temperature record for the whole 30-day test period.</p>		
<p>Name: _____ Email: _____</p> <p>Position: _____ Phone: _____</p>		
Has the refrigerator temperature stayed between +2°C and + 8°C throughout the last 30 days?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
A copy of the temperature record for the last 30 days is attached to this form.	Yes <input type="checkbox"/> No <input type="checkbox"/>	
The refrigerator is working correctly.	Yes <input type="checkbox"/> No <input type="checkbox"/>	
All cable connections are safe and working correctly.	Yes <input type="checkbox"/> No <input type="checkbox"/>	
The solar generator is installed and working correctly.	Yes <input type="checkbox"/> No <input type="checkbox"/>	
The temperature recorder is installed and working correctly.	Yes <input type="checkbox"/> No <input type="checkbox"/>	
<p><b>Comments and questions:</b></p> <p>If you have any comments or questions about the equipment or the installer, please write them here:</p>          		
<p>Signature: _____</p>    <p>Date: _____</p>		