

# Final report

## 1.1 Project details

<b>Project title</b>	IEA-SHC Task 43 Operating Agent
<b>Project identification (program abbrev. and file)</b>	EUDP 12-II, IEA-SHC Task 43 Operating Agent
<b>Name of the programme which has funded the project</b>	EUDP
<b>Project managing company/institution (name and address)</b>	SolarKey Int., Aggerupvej 1, 4330 Hvalsø
<b>Project partners</b>	SolarKey Int.
<b>CVR</b> (central business register)	26959276
<b>Date for submission</b>	24/08 2012

## 1.2 Short description of project objective and results

### 1.2.1 English

The Project aims at facilitating cross-border trading of solar thermal quality products by reducing testing and certification efforts and costs through the harmonization of requirements for testing and certification of solar collectors.

The results are so far a common EN ISO standard for collector test procedures and a formalized international cooperation (Global Solar Certification Network) working on harmonization of procedures and requirements in certification schemes.

A final draft set of rules and requirements for a global solar collector certification scheme has been elaborated.

### 1.2.2 Dansk

Projektet vil – gennem en harmonisering af test og certificeringsprocedurer - medvirke dels til fjernelse af tekniske handelsbarrierer, med deraf følgende stigende international handel og dels til øget kvalitet for solfangere.

Indtil videre har arbejdet medført en fælles EN ISO standard for afprøvning af solfangere – samt et formaliseret samarbejde (Global Solar Certification Network) som arbejder henimod en videre harmonisering af test og certificeringsprocedurer.

Der er udarbejdet et endeligt udkast til en global certificerings ordning.

## 1.3 Executive summary

The project is an international cooperation concerning harmonization of standards and certification of solar thermal products (with focus on collectors).

The project has supported development and approval of the common European and international standard for solar collectors: EN ISO 9806, which can be basis for harmonization of certification schemes around the world.

A cooperation between the different certification schemes are being established, in such way that the test and inspection reports can be mutual recognized by the participating certification bodies. Hence, re-testing and re-inspection could then be avoided.

A Global Solar Certification Network has been established as a framework for the above mentioned cooperation – with participation from 17 countries from 5 continents.

#### **1.4 Project objectives**

The goal to have a common EN ISO standard has been achieved in the now approved EN ISO 9806 for collector test methods. Next step in this field is to promote implementation of this standard worldwide.

The original ambition to have one “Global Mark” and one global certification scheme for solar collectors showed up not to be feasible – instead a concept of “Mutual recognition” of test and inspection reports is being implemented via the Global Solar Certification Network. Still the overall aim at avoiding re-testing and re-inspections can be avoided in this concept.

#### **1.5 Project results and dissemination of results**

##### *1.5.1 Support to ISO standardisation*

The project has supported the development of the EN ISO 9086 on solar collector test procedures, which has now been approved. Having this “global standard” established, makes it possible to harmonize testing and certification throughout those parts of the world, which implement this standard.

##### *1.5.2 Rules/requirements for global collector certification*

Originally it was the ambition to develop a common “Global Mark” for solar collectors, but as it looks right now, a cooperation between the different certification schemes will be established, in such way that the test and inspection reports can be mutual recognized by the participating certification bodies. Re-testing and re-inspection will then be avoided.

However, a final draft set of rules and requirements for a global solar collector certification scheme has been elaborated, which can serve as a guide for setting up a new certification scheme which will match the requirements for participation in the global cooperation.

##### *1.5.3 Establishment of a "Global Solar Certification Network"*

A Global Solar Certification Network has been established as a framework for the above mentioned cooperation – with participation from 17 countries from 5 continents.

#### **1.6 Utilization of project results**

The project results can be utilized by:

- The solar thermal industry active in different parts of the world – less resources needed for testing, inspection and certification
- National authorities / certification bodies setting up or revising certification schemes for solar collectors – a final draft certification scheme based on state of the art in this area is available from the project

Further more is expected that the project in general will contribute to a larger market for solar collectors of higher quality.

## 1.7 Project conclusion and perspective

The project is paving the way for harmonization of test, inspection and certification procedures on a global level. The now agreed concept of mutual recognition of test and inspection reports eases the way (and save costs and resources) for the solar collector manufacturers to enter new market with quality products; hence contributing to a larger market for quality solar collectors.

The project continues in the frame of IEA-SHC Task 43 and EUDP J.Nr.: 64013-0519, "IEA-SHC Task 43 and 45 – prolongation"

### Annex

Home pages:

<http://task43.iea-shc.org/>

<http://www.gsc-nw.org/>

ExCo status reports:

<http://task43.iea-shc.org/data/sites/1/publications/Task-43-Status-for-74-ExCo.pdf>

<http://task43.iea-shc.org/data/sites/1/publications/Task-43-Status-for-75-ExCo.pdf>

<http://task43.iea-shc.org/data/sites/1/publications/Task-43-Status-for-76-ExCo.pdf>

Project documents (available upon request):

GSC document no.	Editor	File type	Title	Date
<b>Document overview - N000</b>				
N0000	JEN	docx	List of docs (current document, continuously updated)	see header
<b>Network Working Rules - N0001</b>				
N0001.R2	HD	docx	Network Working Rules. Main part (excl. Annex A) agreed upon March 14, 2013 – version includes A preliminary annex A listed in cell below (it has been decided to move this annex to annexes in N0003)	2014/03/14
N0001.R3			Version with changes and comments by HD to comment No 2 and 9 from Eileen, HD 22/07/14	2014/07/22
N0001.R4			As above but with changes accepted and format adapted - and a few editorial corrections	2014/08/21
N0001.R5			A few more adaptations	2014/08/21
N0001.R6			Adapted to "Alliance" concept	2014/10/06
<b>Scheme Rules for Certification – N0002</b>				
N0002.R3	SS	docx	Scheme Rules for Solar Thermal Collectors	2014/03/06
N0002.R4			Scheme Rules for Certification (Version of July, adapted format)	2014/08/28
N0002.R4			With input from S. Fischer	2014/09/22
<b>Annexes to Scheme Rules for Certification</b>				
N0002A1.R0	SS	docx	Annex A1. Requirements – Collectors	2014/03/18
N0002A1.R1			Version of July with adapted format	2014/08/28
N0002B1.R1	SS	docx	Annex B1. Factory Production Control – Collectors	2014/08/28
			Version of July with adapted format	
N0002C1.R1	SS	docx	Annex C1. Procedure for Surveillance Test – Collectors	2014/03/18
			Version of July with adapted format	2014/08/28

N0002D1.R1	SS	docx	Annex D1. Inspection Report Template – Collectors Version of July with adapted format	2014/03/18 2014/08/29
N0002E1.R1	SH	pdf	Annex E1. Template for Certificate and Data Sheet – Collectors - Version with GSC number	2014/08/29
N0002F1.R1	SS	docx	Annex F1. Declaration of Tested Values on Label - Collectors - Version of July with adapted format	2014/08/26
N0002G.R1	SS	docx	Annex G. Certificates and Sub-licenses for other Brands ... Version of July with adapted format	2014/03/19 2014/08/26
N0002H.R0	JEN	docx	Annex H. Fees – initial draft for discussion	2014/09/03
N0002I.R1	JH	docx	Annex I. Comparison of Requirements on Different Certification Schemes – informative - Adapted format	2014/09/03
<b>Mutual Recognition Rules – N0003</b>				
N0003.R0	SS	docx	Mutual Recognition Rules Among Certification Bodies and requirements for involved bodies	2014/03/18
N0003.R2			July version with adapted format	2014/08/26
N0003.R3			Editorial revision	2014/10/02
<b>Annexes to Mutual Recognition Rules</b>				
N0003A.R0	SS	docx	Annex A. Agreement on the Mutual Acceptance of Test Reports	2014/07/11
N0003A.R1			Adapted format	2014/09/02
N0003A.R2			Editorial revision	2014/10/02
N0003B.R0	SS	docx	Annex B. Agreement on the mutual acceptance of Inspection Reports	2014/07/11
N0003B.R1			Adapted format	2014/09/02
N0003B.R2			Editorial revision	2014/10/02
N0003C1.R0	SS	docx	Annex C1. Requirements for testing laboratories	2014/07/11
N0003C1.R1			Adapted format	2014/09/02
N0003C2.R0	SS	docx	Annex C2. Procedures for peer assessment for testing laboratories	2014/07/11
N0003C2.R1			Adapted format	2014/09/02
N0003D1.R0	SS	docx	Annex D1. Requirements for inspection bodies	2014/07/11
N0003D1.R1			Adapted format	2014/09/02
N0003D2.R0	SS	docx	Annex D2. Procedure for peer assessment for inspection bodies	2014/07/11
N0003D2.R1			Adapted format	2014/09/02
N0003E1.R0	SS	docx	Annex E1. Peer assessment report, testing laboratories	2014/07/11
N0003E1.R1			Adapted format	2014/09/02
<b>Other GSCN documents</b>				
N0004.R0	JEN	docx	GSC – Introduction	2014/06/19
N0004.R1			Updated format	2014/09/03
N0005	JEN	xlsx	List of Members (continuously updated)	see inside
N0006.R0	JEN	docx	Agenda of 1 <sup>st</sup> GSC Network meeting	2014/02/25
N0007.R0	JEN	docx	Meetings minutes of 1 <sup>st</sup> GSC Network meeting	2014/03/26
N0008.R0	HD	docx	Press release (initial draft)	2014/03/14
N0008.R1			Revised	2014/10/06
N0009.R0	JEN		Initial draft agenda, 1 <sup>st</sup> Board meeting	2014/06/19
N0009.R1			Final draft agenda	2014/06/25
N0010.R0	JEN	docx	Initial draft agenda of 2 <sup>nd</sup> GSC Network meeting	2014/06/25

N0010.R1 N0010.R3			Update Update	2014/07/02 2014/09/25
N0011.R1 N0011.R2	JEN	docx	"Decision minutes" 1 <sup>st</sup> GSCN Board meeting Revised version based on comments from HD	2014/07/02 2014/09/03
N0012.R0	JEN	docx	Initial draft agenda, 2 <sup>nd</sup> Board meeting	2014/09/03
N0013.R0 N0013.R1 N0013.R2	LN	docx	DRAFT ARTICLES OF ASSOCIATION of GLOBAL SOLAR CERTIFICATION NETWORK Adapted format A few editorial corrections	2014/08/29 2014/09/03 2014/09/03
N0013X.R0	LN	pdf	Annex X BYLAWS - CALIFORNIA SOLAR ENERGY INDUSTRIES ASSOCIATION ( <i>external doc - no number in doc</i> )	2013/12/06
N0014.R1	PM	pptx	Logo proposals 29/8 – version with GSC number	2014/09/03
N0015.R1	JEN/ HD	docx	"Decision minutes" 2 <sup>nd</sup> GSC Board meeting	2014/09/14
N0016.R0	JEN	docx	Initial draft agenda, 3 <sup>rd</sup> GSCN Board meeting	2014/09/17
N0017.R0	JEN	docx	A Global Alliance leading to the future establishment of a Global Mark	2014/10/01
N0018.R1	JEN	docx	"Decision minutes" 3 <sup>rd</sup> GSCN Board meeting	2014/09/17
N0019.R0	JEN	jpeg	Recommended logo	2014/10/01

#### MoUs

<a href="#">MoU_SK_IAPMO</a>	pdf	HD	Memorandum of Understanding – Solar Keymark & IAPMO	2013/09/30
<a href="#">MoU_SK_SRCC</a>	pdf	HD	Memorandum of Understanding – Solar Keymark & SRCC	2013/11/13