

Solar Keymark Network

Experience exchange circle of test labs, certifiers and inspectors
working according to the Solar Keymark scheme rules



Final Minutes

11. Solar Keymark Network Meeting October 5th – 6th, 2011; Paris, France

Item 1: Opening of the meeting

The chairman of the Solar Keymark Network (SNK), Harald Drück, opened the meeting and welcomed the participants. He thanked François-Xavier Ball from CERTITA for hosting the meeting. Furthermore he thanked Jan Erik Nielsen as the Secretary of the Solar Keymark Network, for the excellent preparation of the meeting.

Harald Drück gave a short explanation about the Solar Keymark Network. The main task of the SK-Network is to agree on uniform procedures between the different institutions (accredited solar thermal test labs, certifiers, inspectors and manufacturers) working according to the Solar Keymark scheme rules as well as the further development of Solar Keymark certification in particular and certification of solar thermal products in general.

The working rules of the Solar Keymark Network (SKN) are described in the “Solar Keymark Network Internal Regulations” (Document SKN_N0102.R3)

The meeting took place from Wednesday, October 5th, 2011, 13:05 hrs till Thursday October 6th, 2011, 13:37 hrs at "Maison de la Mécanique", Paris.

The first invitation including the draft agenda (version zero) of the meeting was sent out by email from Jan Erik Nielsen dated August 28th, 2011.

Item 2: Introduction of participants

The participants introduced themselves and mentioned their nominating organisation or institution respectively. The list of participants that attended the meeting is attached as Annex A.

As a result of the large number and broad spectrum of participants present the voting preconditions according to clause 4.2 of the Solar Keymark Network internal regulations (Document SKN_N0102R3) are fulfilled.

Item 3: Approval of the agenda

Harald Drück mentioned that as a result of the discussion related to item 27 of the 9th SKN Meeting the agenda is set up in such a way that all topics where a decision is required are placed at the top of the agenda. For the first time this strategy was used for the 10th SKN meeting held on March 22nd and 23rd, 2011 at Brussels. Since it turned out to be successful also the agenda of this and the future meetings will be arranged in such a way.

Following the first draft agenda send out on August 28th, 2011 in the last weeks updated versions of draft agendas as well as document related to the items mentioned on the agenda were send out and were also available via the Solar Keymark Internet site. The latest version of the agenda was named “Final draft agenda” document SKN_N0160R4 version 04/10/11.

The draft agenda was shortly discussed and it was agreed to include an overview on the different national markets under item 34 related to any other business provided time will be available at the end of the meeting. Furthermore Wolfgang Eisenmann expressed the wish to spend more than the originally planned 2 minutes on the different SCF project. It was decided to do this provided enough time is available.

The final agenda with the short market overview included as additional item 34.2 is available via the Solar Keymark website as document number SKN_N0160R5.

Item 4: Comments and final approval of the minutes of the 10. meeting

Harald Drück mentioned that the minutes of the 10th Solar Keymark Network meeting (File: SKN_N0159R0.pdf) were sent out by email dated March 31st, 2011 by Jan Erik Nielsen.

Within the 30 days following the send out of the minutes the following comments were received:

Comment 1 (from Liauw Hoang, CEN):

Fra: Liauw Hoang [mailto:hliauw@cencenelec.eu]

Sendt: 5. april 2011 13:14

Til: Jan Erik Nielsen

Cc: Nils Kleinjan EEPCA; Schettini Bardo; Bell David; THOMASSEN Tore Nyvold

Emne: RE: Minutes from 10th meeting

Dear Jan Erik,

Thank you for the minutes of the SKN meeting.

With regard to PV/T collectors, I mentioned at the meeting that the PV-part of PV/T collectors does not fall within the domain of CEN, but of CENELEC. As said at the meeting, EN 12975 and EN 12976 (which form the basis for the Solar Keymark scheme rules) do not cover PV/T collectors.

The question is therefore if the Solar Keymark scheme rules can cover PV/T collectors, unless there is a EN for PV/T collectors which should then be included in the Solar Keymark scheme rules.

There is an additional aspect to this: the Keymark should cover the whole product.

The Keymark on product which addresses only a part of the product will cause confusion as to the meaning of it.

I have already been in contact about this with EEPCA (European Electrical Products Certification Association).

They have a meeting next week and I expect we may address this issue at the meeting.

From a CENELEC point of view, the electrical safety of PV/T collectors should be covered by a scheme.

Anyway, the view of the PV/T industry should be heard on this.

I am not aware of a European federation or association of PV/T manufacturers, but EPIA (European Photovoltaic Industry Association) is a CENELEC Cooperating Partner.

Maybe you could have a word with them.

There is also a PVT Forum <http://www.pvtforum.org/index.html> and it is promising to see that the Commission is supporting this.

Kind regards,

Hoang

Action: The comment was presented and there was a consensus that this comment does not directly influence the content of the minutes of the 10th SKN Meeting. Hence, based on this comment no changes of the minutes of the 10th SKN Meeting are required.

Comment 2 (from Stephan Fischer, ITW University of Stuttgart):

Related to “Item 4: Comments and final approval of the minutes of the 9. meeting”

In the sentence “Furthermore one comment was received from Susanne Hansson on October 24th, 2011 related to item 29 (Requirements on OEM-certification) of the minutes of the 9th SKN meeting” the year 2011 should be changed to 2010.

Action: This comment was accepted without any discussion

Related to “Decision D3.M10 – Procedure for considering selective absorber coatings as equivalent”

In the description of the Procedure (If a coating is to be considered equivalent to other coatings then the following tests shall be passed and requirements shall be fulfilled) the 5th paragraph reads:

5. The interchangeability is accepted by the Solar Keymark Network

The comment of Stephan Fischer related to point 5 is “This is not a test as specified above and doubles the Point 3. from the list above”

Action: This comment was discussed but no need for a change was seen.

Related to “Item 17: Revision of decision D5.M7 – Solar Keymark certification of PV/T collectors”

In the sentence starting with “Uli Fritsch presents ...” the surname has to be changed to „Fritzsche“

Action: This comment was accepted without any discussion

Related to “Item 22: Information from TC 312”

Related to the sentence “The aim is to send out a common EN/ISO draft for enquiry as soon as possible” Stephan Fischer mentioned “there will only be a common draft of Part 2 of the Standard since ISO does not have requirements as laid down in EN 12975-1”

Action: This comment was discussed but no need for a change was seen.

Comment 3 (from Susanne Hansson, SP):

From: Susanne Hansson [mailto:susanne.hansson@sp.se]

Send: Sonntag, 24. Oktober 2010 21:07
An: jen@solarkey.dk; Jan Erik Nielsen; Harald Drueck
Betreff: 9th meeting minutes - comment on Item No. 29

Dear Jan Erik and Harald

Thank you for a good meeting in Graz and I think it was very good that we had this discussion.

I would like you to add a little information in the minutes re "my" **item No. 29 OEM certification and visits**.

I asked for a clarification of the requirements/descriptions written on the website because the present information is not enough. Can you to the minutes add my question as you did for some other items and that the description of Situation II is going to be changed on the website?

Please add:

Below is written at SK website (2010-09-22):

"Consider the two situations:

Situation I: A distributor buys Solar Keymarked collectors from the manufacturer and sells the collectors under the original name ->

As the collector still has the original name and type referred to in the Solar Keymark license, the distributors can of course use the existing Solar Keymark.

Situation II: A distributor buys Solar Keymarked collectors from the manufacturer and sells the collectors under his own name ->

As the collector has a new name and type, it is not possible to link it to the original Solar Keymark license. A new Solar Keymark license with the new name/type must be obtained. No testing is required to obtain the OEM Solar Keymark license, only paper work and inspection/visit. "

Thanks and regards Susanne Hansson

Action: This comment was accepted and the requested change (inclusion) was performed in the final minutes of the 10th SKN meeting (document SKN_N0159R1) on page 3.

Comment 4 (from Jan Erik Nielsen, SKN Secretary):

Item 14 page 9: "Annex B1" shall be "Annex B2"

Action: This comment was accepted without any discussion.

Due to the changes mentioned above the document SKN_N0159R1 results as the revised version of the minutes. Harald Drück asked for final approval of this version of the minutes.

The minutes of the 10th Solar Keymark Network meeting File: SKN_N0159R1 were unanimously finally approved by the participants present.

Note: The revised version of the minutes will be send out by Jan Erik Nielsen in the coming days.

Item 5: Date & place of next Solar Keymark Network (SKN) meetings

The 12th SKN meeting (spring 2012 meeting) is scheduled for

March 20th 13:00 hrs to March 21st 14:00 hrs; (end of day one at 19:00 hrs)
at Berlin, Germany at the premises of DIN based on an invitation from Sören Scholz.

The 13th SKN meeting (autumn 2012 meeting) is scheduled for

September 19th 13:00 hrs to September 20th 14:00 hrs (end of day one at 19:00 hrs)

or

September 26th 13:00 hrs to September 27th 14:00 hrs (end of day one at 19:00 hrs)

or

October 10th 13:00 hrs to October 11th 14:00 hrs (end of day one at 19:00 hrs)

at Madrid at the premises of AENOR based of an invitation from Jaime Fernandez Gonzalez-Granda.

Note: A final decision will be made at latest until end of October 2011.

The 14th SKN meeting (spring 2013 meeting) is scheduled for

March 2013 (two days)

at the premises of SIA at Israel based on an invitation from Reuven Godali.

Note: A final decision will be made at latest until end of next.

Item 6: Review of Solar Keymark Network decision list and incorporating decisions into the relevant parts of the SK scheme rules

Harald Drück mentioned the discussion of the 9th SKN meeting related to item 9 (How to manage the “Decision list”) and the result to incorporate decisions from the “decision list” in the relevant parts of the SKN internal regulations, in the Solar Keymark scheme rules.

Following this Jan Erik Nielsen incorporated the appropriate decisions in the SK scheme rules. The document resulting from this procedure is SKN_N0106R13 and is discussed under item 7.

The current version of the decision list (SKN_N0100R6) was discussed. In this context Harald Drück highlighted that Jan Erik made the “history” of the changes traceable by mentioning the corresponding section of the SK scheme rules in which the decisions were incorporated. However, in order to improve the traceability even more, in addition to the section also the version of the SK scheme rules should be included.

Item 7: Revised SK scheme rules

Jan Erik Nielsen presented the latest version of the SK scheme rules (Document SKN_N0106R13) send to CMC on 2011-09-21 for approval. The major changes are the inclusion of the corresponding SKN decisions and the extension towards the Solar Keymark certification of “Solar water heater stores” according to EN 12977-3.

Based on a proposal of Susanne Hansson, Jan Erik Nielsen will ask CEN if it is possible to have a separate e.g. technical part of the SK scheme rules that need not be approved by CMC.

This revised SK scheme rules were discussed and some minor changes were made, resulting in document SKN_N0106R14. Furthermore the meaning of the statements in 1.1 “Collectors / systems / stores with different characteristics are considered as subtypes” needs to be presided. This will be performed during a further revision.

Decision D1.M11 – Update of Solar Keymark scheme rules

The Solar Keymark scheme rules as described in document SKN_N0106R13 are accepted with future editorial changes to be made by Jan Erik Nielsen.

This decision was taken unanimously.

Item 8: Absorber coatings to be considered as equivalent

The requirements under which absorber coatings can be considered as equivalent were already discussed at the 10th SKN meeting and provided the basis for decision D3.M10 - Procedure for considering selective absorber coatings as equivalent. Hence, no further action is required.

No new absorber coatings to be considered as equivalent were presented at the meeting.

Item 9: Glazing to be considered as equivalent

A working group consisting of the following persons Ralf Köbbeman-Rengers (Chair), Andeas Bohren, Wolfgang Eisenmann, Franz Helminger, Carsten Lampe, Stephan Fischer and Korbinian Kramer elaborated document SKN_N0138R4 containing proposal for a procedure describing under which requirements different collector glazing can be considered as equivalent.

Harald Drück thanked the working group for there efforts. The document was discussed and the following decision was made:

Decision D2.M11 – Procedure for considering absorber glazing as equivalent

Note: This procedure applies for thermally toughened safety flat glass only. For all other types of glass, no equivalences can be defined at present, due to a lack of experience

Collector glazing can be considered as equivalent if the following requirements are fulfilled:

1. If material, texture, surface treatment and thickness of the glass remain unchanged,
 - a. the solar transmittance (AM 1.5) shall be measured and documented for both types of glazing. The solar transmittance (AM 1.5) shall not differ by more than ± 1 percentage point from the one of the glass used for the initial Solar Keymark collector test. These measurements shall be not older than 2 years and shall be made by one of the Solar Keymark test labs or by labs accredited for transmittance measurements;
 - and
 - b. if the impact resistance test according to EN12975-2, chapter 5.9 was performed during the initial test, the impact resistance test shall be passed successfully with equal or

better result than in the initial test. The tests shall be carried out by a Solar Keymark test lab or at the manufacturing site by a test engineer from a Solar Keymark test lab.

2. If the glass is not identical like described in point 1 above the following additional test has to be done:
 - a. If the thickness of glass is changed, mechanical load and rain penetration has to be tested.
 - b. If the thickness of glass is changed by less than 1 mm no transmittance measurement needs to be done, if no other characteristic of the glazing was changed and if the glass is of the same type and from the same glass manufacturer (e.g. Securit Albarino T from Saint Gobain).
 - c. If texture or surface treatment is changed, the collector performance test incl. IAM has to be done.

Remark: The new test results from collector testing (not glass only testing) have to be documented in an updated test report from accredited test lab according to EN 12975.

This decision was taken with no negative votes and two abstentions

Item 10: Guide – Preparation of physical inspection reports

No need for discussion since the topic is included in item 23 (Solar Certification Fund 1st Call) in the project “Check 12976”)

Item 11: Equivalence of absorbers in FPCs except absorber coating

Already at the 9th SKN meeting the question was raised under which conditions absorbers with different pipe diameters, pipe distances and fin thicknesses can be considered part of one collector family. Related to this a working group consisting of the following persons was established:

Franz Helminger (chair), Harald Dehner, Ralf Köbbeman-Rengers, Maria João Carvalho, Peter Kovacs, Vinod Shama

The working group prepared document SKN_N0161R0 with a “Proposal to Solar Keymark Network for a decision for: Equivalence of absorbers in FPCs except absorber coating”. The document was discussed but it was not able to reach a consensus. One critical aspect was the consequence of corresponding decisions related to the type/subtype and number of SK certificates.

Therefore it was decided to deal with the topic again in an **modified working group** consisting of the following persons:

Franz Helminger (chair), Ulrich Fritzsche, Christian Stadler, Carsten Lampe, Ralf Köbbemann-Rengers, Maria João Carvalho, Hans-Peter Weiss, Martin Meingassner, Sören Scholz, Andreas Bohren,

The task of the working group is to elaborate a proposal for a decision at the next SKN meeting.

Item 12: Freeze resistance test

Ulrich Fritzsche gave a presentation on freeze resistance testing of solar thermal collectors (Document SKN_N0166R0) and a discussion related to a decision took place. Since there are still too many open questions it was decided to establish a working group to investigate the issue and to prepare a proposal for a decision at the next SKN meeting.

The WG consists of the following persons:

Ulrich Fritzsche (chair), Stephan Fischer, Carsten Lampe, Alberto Garcia de Jalon, Bellenda Giovanni, Maria João Carvalho

Until a final decision requiring an obligate freeze resistance test for heat pipes in solar collectors is implemented, it is recommended to perform freeze resistance tests of heat pipe collectors since problems related to damages caused by freezing were observed in the market.

Item 13a: Status on calculation / validation of the collector annual output tool

Related to the calculation tool of the annual collector energy output prepared by Peter Kovacs from SP he mentioned document SKN_N0170R0 and SKN_N0172R0 (ISES2011-Papers) as well as SKN_N0171R0 (Manual “Energy Output Calculator v3.05”) and SKN_N0173R0 describing the “Evaluation of calculation results of excel based collector gain calculator” prepared by Fraunhofer ISE.

Furthermore he, as well as Korbinian Kramer with regard to the validation, informed about the current status of the activities by means of the presentation attached as Annex B. In addition Peter Kovacs gave a short demonstration of the tool.

The presentation was discussed and the following decision was made:

Decision D3.M11 – Validation of annual collector energy output calculation tool

The annual collector energy output calculation tool prepared by Peter Kovacs is considered as validated.

The annual collector energy output calculation tool shall be made available via the Solar Keymark website for download. A closed version will be public available. An open version will be available in the restricted area of the website.

This decision was taken unanimously

Item 13b: Annual collector energy output included in data sheets

Related to the inclusion of the annual collector energy output in the Solar Keymark Collector data sheet, Jan Erik Nielsen presented a revised version of Annex B1 (Collector data sheet) of the Solar Keymark Scheme rules. According to Decision D6.M10 (Annual collector energy output included in data sheets) this data sheet is now included in the Solar Keymark Scheme rules since the annual collector energy output calculation tool is considered as validated.

A final version of the Solar Keymark collector data sheet will be published on the Solar Keymark website by Jan Erik Nielsen until Nov 6, 2011.

Item 14: Revised version of system data sheet

- A) A proposal for a revised version of the system data sheet extended by the aspects of system families was presented by Jan Erik Nielsen. The data sheet is available via www.solarkeymark.org

The system data sheet was discussed and some comments were made. Further comments related to the systems data sheet should be submitted to Jan Erik Nielsen at latest until the October 15th, 2011.

In the context of the discussion of the Solar Keymark data sheets the following decisions were made:

Decision D4.M11 – Language of Solar Keymark data sheets

It was decided that the master of future versions of Solar Keymark data sheets shall be in English only. Other languages can be added under the responsibility of the corresponding certification body

This decision was taken unanimously.

Decision D5.M11 – Units used for “Energy” in Solar Keymark data sheets

It was decided that in the future, energy quantities shall be given in kWh.

This decision was taken unanimously.

- B) The topic related to different brand names in Solar Keymark certificates was intensively discussed but not finally solved. Due to this a working group consisting of the following persons was established:

Sören Scholz (Chair), Ralf Köbbemann-Rengers, Christian Stadler, Pedro Dias, Costas Travarasos, François-Xavier Ball, Vincenzo Delacqua, Jaime Fernandez Gonzalez-Granda.

The task is to elaborate for the next meeting a proposal on how to deal with different brand names in Solar Keymark certificates, taking also into account the aspect of the licence number. In addition, the aspects related to fees shall be considered.

Item 15: List of documents required by certification bodies

Following the discussion at the 9th SKN meeting Costas Travarasos prepared document SKN_N0165R0 entitled “ List of documents Required by Certification Bodies”

The document was briefly discussed. Since Costas Travarasos could unfortunately not attend the meeting due to a strike in Greece it was decided to postpone this topic to the next SKN meeting.

Item 16: Issues related to OEM and types / subtypes

Included in item 14.

Item 17: Solar Keymark Database

Andreas Bohren proposed to improve the transparency and traceability of the Solar Keymark Database in such a way that also all the withdrawn and/or void certificates remain available. A clear declaration of the void certificates is mandatory to prevent from confusion.

Reason(s):

1. For the end user and/or authorities it is always possible to check whether a certificate has been withdrawn or whether it is not available on the data base (for any reason). This is an important information as it concerns subsidies.
2. For the test labs/certifiers. In case of “mixed”-System-Keymarks (example “Test Lab A has tested a collector B, certified by C. Then Test Lab D made a system test (under the certifier E) using the collector A. The certificate(s) are then copied to several OEM distributors.... etc”) it is much easier to track down the (in)validities of the components.

The topic was discussed and in this context it was mentioned that according to the existing rules the manufacturer are already today required to inform, in addition to the certifier of the collector, also the certifier of the system about any changes related to the collector. In order to be sure that the manufacturer informs the certifier of the system about a withdrawal of the certificate for the collector, it is recommended to state the obligation clearly in the contract between the certifier of the system and the manufacturer. *(Note: The text above is already mentioned in the “List of decisions” in the context of Decision D4.M8 – Certification of systems by using collector Solar Keymark certificates from a different certification body).*

Item 18: Solar Keymark Certification of tracking concentrating collectors

Background:

As a result of an amendment to part 1 of EN 12975, approved in 2010 it is possible to test and to certify tracking concentrating collectors. However, in the way the test methods are written today, many designs will not be able to pass the tests due to the fact that overheat protection mechanisms are not foreseen. These mechanisms are part of most tracking concentrating collectors and are necessary for their operation.

From a technical point of view CEN/TC 312/WG1 has taken this into consideration and consequently developed a new informative Annex P (attached as document SKN_N0162R0) in the prEN12975-2 making overheat protection mechanisms “allowed” as a means to pass the tests for these collectors. The new Annex was recently drafted within CEN/TC 312/WG1 where there is a broad consensus regarding this approach. It is now forming part of the new draft version of EN 12975-2, currently on its way to a public inquiry. Moreover, as a result of discussions between CEN/TC 312 and ISO/TC 180, part 2 of prEN 12975 will be launched as a DIS EN ISO standard. Provided it is approved after public review and formal vote within ISO it is going to become an international standard.

Furthermore it can be noted that tracking concentrating collectors are already in the scope of the US SRCC certification. Therefore, in order to give the European industry a good support in the development of these products it is important that they can be fully and appropriately taken into account in the testing and certification as quickly as possible.

Estimated time schedule for the new EN 12975-2 is that date of availability will be no sooner than 2012-06-01 and no later than 2012-11-30.

Status:

In May 2011 SP sent a request to the CBs regarding certification of tracking concentrating solar collectors. The purpose is for the CBs to be able to offer the manufacturers a certification sooner than the new EN 12975-2 (including new Annex P) will be an official EN-standard and to do this in a “harmonized” way between the CBs and SKN. The background is also that tracking concentrating collectors are already in the scope of the US SRCC certification. Therefore, in order to give the European industry a good support in the development of these products, it is important that they can be fully and appropriately taken into account in the testing and certification as quickly as possible.

After a short discussion the following decision was made:

Decision D6.M11 – Solar Keymark Certification of tracking concentrating collectors

Solar Keymark certification of tracking concentrating collectors is possible, since they are explicitly mentioned in the scope of EN 12975-1 and EN 12975-2.

The reliability testing of concentrating and tracking collectors shall be performed as described at present in the latest version of Annex P entitled “Reliability testing of concentrating and tracking collectors” of FprEN 12975-2 .

This decision was taken unanimously

Item 19: Translation of SK brochure

Pedro Dias reported that the brochure is already available in English, Slovak and Chinese (draft). In this context Pedro Dias mentioned also decision D10.M10 (Financing of translation and layout of QAISt brochures) providing a support of €300,- per language and the financing of the new layout resulting from the translation by the SKN.

It was agreed to translate the brochure in the following languages:

German; Stephahn Fischer is volunteering for proof reading

French; Philippe Gay

Polish, Patryk Hirszler

Portuguese, Maria Joao Carvalho

Spanish, Alberto Garcia de Jalon

Croatian and Macedonian:

Aleksandar Prodanov and Kiro Mitevski

Furthermore it was decided to translate the brochure also in Russian and Arab.

The PDF-Files resulting from this activity will be available at www.solarkeymark.org

Item 20: Global certification

Jan Erik informed about the latest developments within IEA SH&C Task on “Rating and Certification Procedures” and presented a very first draft scheme rules for a “Global Certification Scheme for Solar Thermal Collectors” (Document SKN_N0168)

Sören Scholz presented document SKN_N180 entitled “Recommendations from the Solar KEYMARK empowered certification bodies to CEN, for including certification bodies from non-CEN member/affiliate countries into the Solar KEYMARK system”

Both documents as well as the pros and cons of a global certification were discussed. Finally the following decision was made:

Decision D7.M11 – First steps towards global certification

The vast majority of the participants present see the need for the establishment of a global certification scheme for solar thermal products.

Hence it was decided to include a topic related to the “elaboration of concept for global certification” in the next call of the Solar Certification Fund (SCF)

This decision was taken unanimously.

Furthermore it was decided to establish a working group related to global certification of solar thermal products consisting of the following persons:

Jaime Fernandez Gonzalez-Granda.(chair), Mark Witt, Stephan Fischer, Jan Erik Nielsen, Harald Drück, François-Xavier Ball, Sören Scholz, Ralf Köbbemann-Rengers, Stefan Mehnert.

Further participants such as Hong Liauw from CEN and colleagues from Australia and China are welcomed to join the working group and should be encouraged to do so. In case they are interested they should contact Jaime Fernandez Gonzalez-Granda as the chairman of the working group.

The task of the working group is to elaborate a roadmap leading towards global certification.

Item 21: Financial report related to Solar Keymark Network and Solar Certification Fund

Based on document SKN_N0177R0 Pedro Dias reported about the financial aspects of the Solar Keymark Network and Solar Certification Fund.

A short discussion took place and several questions were answered by Pedro Dias.

Finally Harald Drück thanked Pedro Dias and ESTIF for taking care of all financial issues related to the Solar Keymark Network and Solar Certification Fund in an excellent way.

Item 22: Solar Keymark Network Budget 2012

Jan Erik Nielsen presented the documents SKN_0174R0 and SKN_0175R0 related to Solar Keymark Network budget and SKN_0178R0 describing the services provided by ESTIF to the Solar Keymark Network.

The documents were discussed and questions from the participants were answered by Jan Erik Nielsen. Related to SKN financial aspects the following decision was made:

Decision D8.M11 – Solar Keymark Network 2012 budget

It was decided that the budget of the Solar Keymark Network (SKN) for 2012 is in total 79.160 €(as stated in document SKN_N0174R0).

In 2012 the SKN fees will kept constant as stated in annex C of the Solar Keymark scheme rules, document SKN_N106R5)

This decision was taken unanimously.

Item 23: Solar Certification Fund - 1st Call

Status reports on the following projects funded by the 1st Call of the Solar Certification Fund (SCF) were presented:

Check 12976 (Fraunhofer ISE)

Activity proceeds according to the schedule. A first proposal for a guide related to the preparation of - “physical inspection reports” is available as document SKN_N0164. Korbinian Kramer asked if the approach described in the document is in line with the interests of the involved stakeholders. This is in general the case.

EN13203-3 Solar (SWT)

Stephan Fischer mentioned that the activity has just started and is well on the way. At present the simulation models for the gas fired appliances and the solar thermal systems are set up. First results will be presented at the next SKN meeting. Jan Erik Nielsen mentioned that a check with the time schedule of the EcoDesign / EnergyLabelling “process” would be wise (to be checked by Stephan Fischer with ESTIF consultant Gerard van Amerongen).

Legio2010 (vAConsult)

Gerard van Amerongen was not present, hence no “official” presentation related to this activity was given. Jan Erik Nielsen mentioned that the activity is intensively processed and that first results were already presented within a meeting of the ESTIF Standardisation and Certification working group.

SK 12977 (PlanEnergi)

Jan Erik Nielsen reported about the implementation of the aspects relevant for the certification of solar water heater stores in the current version of the Solar Keymark scheme rules. More results will be presented at the next SKN meeting.

CE 2010 (SWT)

Stephan Fischer reported about several activities related to CE-Marking of Solar Collectors. A final draft of EN 12975-1, Annex ZA as a basis for the required harmonisation of the standard was elaborated and will be send out for commenting quite soon. Among others also a meeting with the so-called CEN-consultant will take place on October 7, 2011 at Brussels. From the SKN side Stephan Fischer and Jan Erik Nielsen will attend the meeting.

SK Update (polymer sealings) (SP)

A survey within the manufacturers related to polymer sealing materials is on the way.

AdminSFC2010 (ESTIF)

Pedro Dias reported especially about the new version of the Solar Keymark website elaborated within this activity. Besides the classical website function, the new website will also offer additional features such as e.g. a discussion board.

A link to the preliminary website will be send out by Pedro Dias for commenting during the next week.

GloboCert (PlanEnergi)

The activity is mainly related to the financing of travel costs for the participation of Jan Erik Nielsen in the IEA SHC Task 43 related to rating and global certification. Up to now he went in the context of the GloboCert activity to IEA SHC Task 43 meetings in Raleigh (USA) and Kassel (Germany). Furthermore he has a pending invitation to China to promote Solar Keymark certification and global certification.

SK TC164:2010 (vAConsult)

Gerard van Amerongen was not present, hence no “official” presentation related to the

activity was given. Jan Erik Nielsen mentioned the activities of Gerard van Amerongen in TC 164 and addressed the complexity and difficulties within this TC.

In order to perform the reporting in a more uniform and structured way it was decided to elaborate a one page reporting form. This form will be send out to the SCF project partners prior to the SKN meetings. Based on the input the SCF administrative secretary will prepare one document with the SCF call status report and send this out to the participants of the SKN before the SKN meeting. During the SKN meeting the discussion will take place on the basis of this document.

A format for the reporting form will be elaborated based within the Solar Certification Fund Steering Group. Pedro Dias “was volunteered” to prepare a first proposal for this form and to send it to Harald Drück for commenting.

Item 24: Solar Certification Fund funding principles

It was discussed if some principle decisions related to the funding of secretariats for CEN and/ or ISO Technical committees (TCs) or working groups (WGs) as well as TC liaison officers should be made.

As a result of the discussion the following decision was made:

Decision D9.M11 – Solar Certification Fund funding principles related to the financing of TC and WG secretariats and liaison officers

No funding of TC and WG secretariats and liaison officers by the SCF will be provided on a regular basis. Funding of TC and WG secretariats and liaison officers by the SCF is decided on a case by case basis e.g. by including specific topics in the SCF calls.

This decision was taken unanimously.

Item 25: Solar Certification Fund – 2nd Call

Jan Erik Nielsen and Harald Drück reported about the activities of the Solar Certification Fund Steering Group related to the evaluation of the proposals of the 2nd SCF call as well as on the consensus meeting held on September 15th, 2011 in Brussels and partly virtual by phone.

The results of the evaluation including a proposal of projects recommended for funding are listed in document SKN_N0169R0. This document as well as all the proposals received were send out to the Solar Keymark Network by Jan Erik on September 21st, 2011.

This document SKN_N0169R0 was presented by Jan Erik Nielsen.

Harald Drück mentioned the following extract of an email he received from Costas Trivasaros on Oct. 5, 2011 which could unfortunately not attend the meeting due to a strike in Greece:

Under FINANCING THE ISO SECRETARIAT related to the ISO solar collector working group, two proposals were submitted matching the total 20.000 € budget.

3.1.Part financing of CEN secretariat for solar collector working group (CENWG1) 6000 € and

3.2. Financing of CEN/TC312 secretariat (CEN/TC312) 14.000 €

The proposals were following the same format and same detail, as they were co-ordinated.

I believe that the two parts should be dealt under the same principles and be both accepted.

However, if there is any need for clarification, this would be provided.

If the outcome of the item 24 is positive, then voting item 25 could be NO as total but Yes to all positive plus 3.2.

Concerning the proposal related to financing of the TC 312 secretariat handed in by Vassiliki Drosou the following decision was made:

Decision D10.M11 – Funding of the TC 312 secretariat in 2012

It was decided to launch on October 15, 2011 a exceptional call for funding of the TC 312 secretariat in the period between Dec. 1st, 2011 until Dec. 31st, 2012. Budget 15.000,- €
Deadline for proposals October 31st, 2011. The SKN will give the authority to the Solar Certification Fund steering group to make a final decision related to this issue.

This decision was taken unanimously.

Concerning the funding of proposals from the 2nd SCF call following decision was made:

Decision D11.M11 – Funding of proposals from the 2nd SCF call

The proposals recommend by the Solar Certification Fund Steering Group for funding as described in document SKN_N0169R0 are accepted and the corresponding activities will be funded.

This decision was taken unanimously.

Item 26: Solar Certification Fund – 3rd Call

In order to improve the quality of the proposals handed in, it was decided to improve the announcement of the SCF call. In order to achieve this, the following will be done:

- Short description of the work to be done related to the specific activity
- Inclusion of an indicative budget (where possible) together with the topic
- Announcement of the call on the homepages of the certification bodies, test labs and industry associations
- encouragement of the SKN members to inform widely about the SFC call.

Furthermore it was decided to perform ordinary calls only once a year.

The next call for the projects funded by the Solar Certification Fund will be launched on November 30th, 2011 with deadline January 31st, 2012.

The following activities were proposed to be included in the 3rd SCF call

- Promotion of Solar Keymark
- Weather database on testing as well as standardisation and certification issues to be available via the Solar Keymark website (budget 5.000 to 10.000 €)

- Support to IEA-SHC Task 43 (Solar rating and certification - incl. Global certification)
- Follow-up activities on Legionella issue
- Follow-up process of revision of “EPBD-standards” and participate actively in revision/improvement of EN 15316-3-4
- liaison officers of TC 164, TC 128, TC 228 and TC 371 (budget 5.000,- €per each activity)
- energy labelling with regard to promotion and awareness raising
- extension of the existing solar collector energy output calculation tool to air collectors (budget 30.000 €)
- automatic Solar Keymark collector data sheet generation (budget max. 10.000 €)
- investigation of freeze resistance testing of heat pipes (budget 15.000 to 20.000 €)
- performing a round-robin test related to freeze resistance testing of heat pipes
- investigation of quality assurance aspects related to heat pipes
- elaboration of a procedure related to the interchangeability of collector components
- information about CE-marking of solar collectors
- estimation of uncertainty of determined collector and system performance
- measures to harmonise the qualification requirements for inspectors and test labs
- revision of specification for requirements for installers and user manuals
- development of scheme rules for the certification of absorber coatings.

The ideas listed above will serve as a basis for the 3rd SCF Call to be elaborated by the SCF. Proposers of the topic listed above are encouraged to precise their proposals by sending more detailed information. Preferably this input should be in such a way that it can directly be used as the call text.

Provided the amount required for financing of high quality proposals exceeds the available budget a decision of the funded projects will be made based on priorities.

Item 27: Certification of combined solar thermal and heat pump systems

Harald Drück reported about a discussion related to the certification of combined solar thermal and heat pump systems during one of the last meetings of IEA-SHC Task 43 (Solar rating and certification). during that the need for a certification of such systems was expressed. In order to occupy this field he proposed to the SKN to announce that it aims for the certification of combined solar thermal and heat pump systems.

A discussion related to this issue took place and the following decision was made:

Decision D12.M11 – Certification of combined solar thermal and heat pump systems

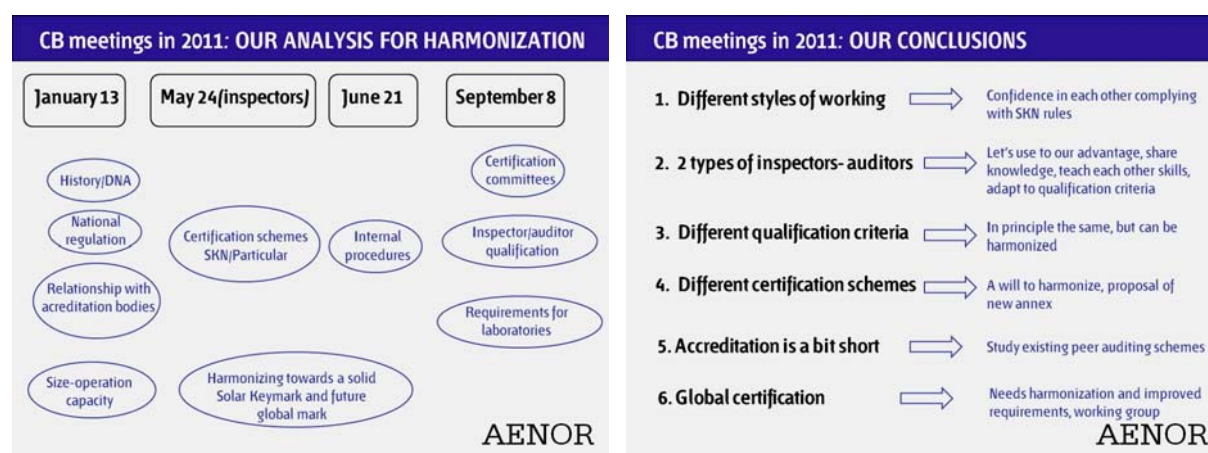
It is a future goal of the Solar Keymark Network to extend its activities as well as the Solar Keymark certification towards combined solar thermal and heat pump systems.

This decision was taken with no negative votes and one abstention

Item 28: Report from the Solar Keymark Certification Bodies / Solar Keymark Inspection Working Group

Sören Scholz reported about the first meeting of the Solar Keymark inspection group held on May 24, 2011 at Cologne. The minutes of the meeting are available as document SKN_N0163R0.

Jaime Fernandez Gonzalez-Granda reported about the three meetings of the certification bodies that were held in 2011. In this context he showed the following two slides:



Furthermore he presented document SKN_N0178R0 entitled “ ANNEX E FACTORY PRODUCTION CONROL BASED ON ISO 9001 STANDARD””as an example how factory production control can be performed.

The document was discussed and due to the need to elaborate a version that will find the acceptance of representatives from certification bodies, manufacturers and test labs, it was decided to create a working group consisting of the following persons:

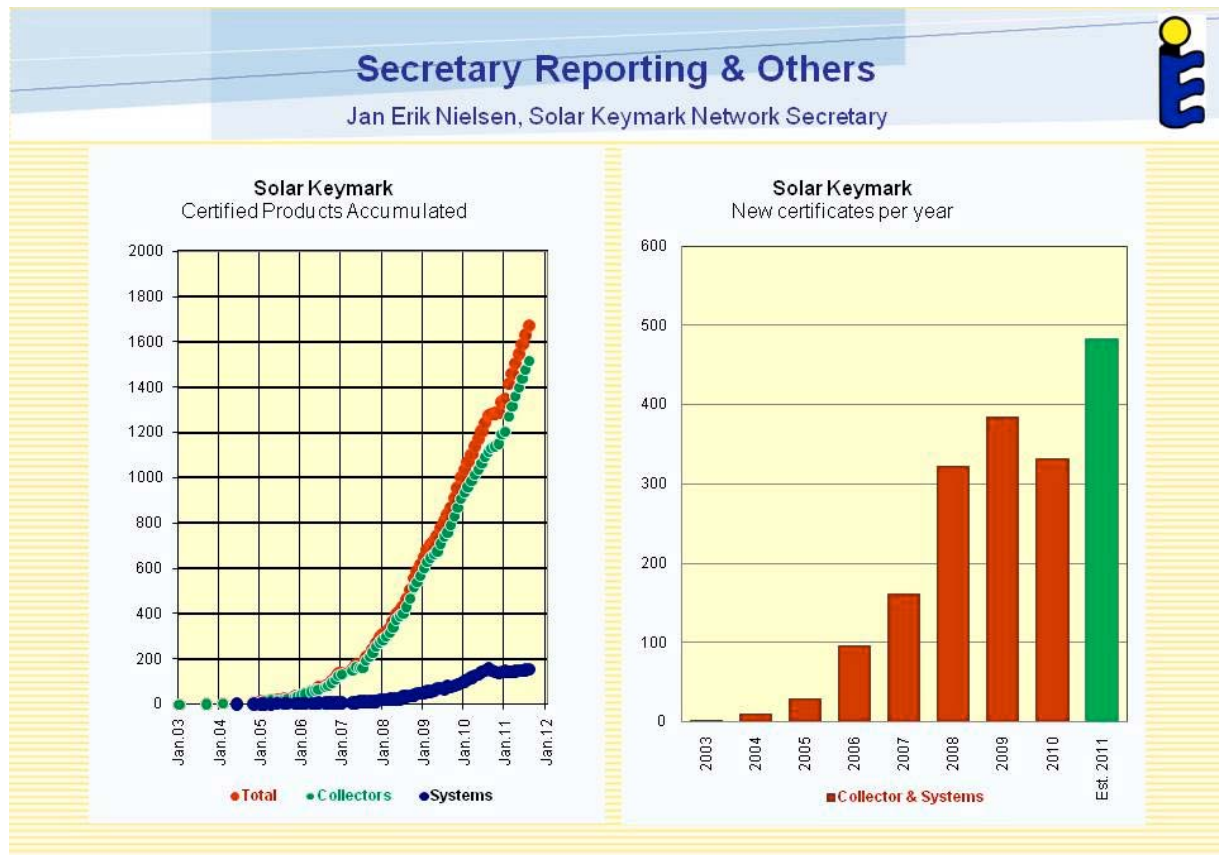
Jaime Fernandez Gonzalez-Granda (chair), Ralf Köbbeman-Renergs, Reuven Godali, Ulrich Fritzsche, Franz Helming, Stephan Fischer, Christian Stadler, Carten Lmape, Henny Rosik, François-Xavier Ball, Stefan Mehnert, Wolfgang Eisenmann, Alberto Garcia de Jalon

The task of the working group it to elaborate a modified version of the document.

Finally Harald Drück appreciated the activities of the certification bodies related to quality assurance and harmonisation and encouraged them to continue their efforts related to this.

Item 29: Status of Solar Keymark licences

Jan Erik Nielsen presented the following diagram indicating the current status of the Solar Keymark licences.



11th Solar Keymark Network meeting, Paris, 5-6 October 2011

The success of Solar Keymark certification was appreciated by the participants. The reason for the extremely moderate growth of Solar Keymarked systems that can be observed since the middle of 2010 is (partly) due to the implementation of system family certification resulting in only one certificate for a complete system family.

Item 30: Information from TC 312

Jan Erik Nielsen reported about the last meeting of TC 312 (including joint meetings with ISO TC 180) held from Sep. 1 to 3, 2011 at Kassel, Germany by means of the presentation included as Annex C.

After the presentation some questions were asked and answered by Jan Erik Nielsen.

Item 31: Information from QAISt-Project

The Project QAISt (Quality assurance in solar thermal heating and cooling technology – keeping track with recent and upcoming developments) started officially on June 1st, 2009 and has a duration of 3 years. Project co-ordinator is Pedro Dias from ESTIF.

He presented the project by using the presentation attached as Annex D.

In addition to the general project presentation a “country report” was presented from Slovakia by Jana Levická attached as annex E (Slovakia).

Item 32: Information from CEN

Note: The original item 32 in the agenda dedicated to the clarification of types and subtypes was already discussed under item 14. Hence the topic related to “information from CEN” and not indicated with an item-number in the agenda was numbered as item 32

Sören Scholz reported about the following aspects:

- Certification of PV/T collectors
As stated in document SKN_N0179R0 CCB has the opinion that the manufacturers / suppliers of PVT collectors need two marks: the Keymark for the solar thermal collector, and a mark covering electrical safety and performance of the PV modules.
- CEN Keymark database
CEN started the Keymark database, but did not ask the certifiers for updates of the certificates up to now. Furthermore correction of severe errors such as missing links is still missing in the data base.
- Report from “CCB meeting”
Since the meeting will take place next week no results can be reported today. For Solar Keymark certification relevant aspects are the potential acceptance of a new certification body from Greece and the strategy related to the transfer of Solar Keymark certification towards global certification as requested by the Solar Keymark Network.

Item 33: Experience with the misuse of the Solar Keymark

Sören Scholz reported about general problems related to misuses of the Solar Keymark. One country where misuses is a serious problem is China.

Harald Drück expressed his hope that the activities related to “Solar Keymark police” funded by the SCF will contribute to solve or at least reduce this problem.

Item 34: Any other business

Item 34.1: Election of the Solar Keymark Network chairman

Harald Drück (current chairman of the Solar Keymark Network) mentioned that according to point 2.3 of the Solar Keymark Internal Regulations (Document SKN_N0102R3) the chairman of the SKN is appointed for a period of 3 years. Since he was appointed in 2009 SKN chairman elections have to be performed in 2012. Harald Drück proposed to carry out

this elections at the beginning of the next SKN Meeting in spring 2012.

The participants agreed with this proposal. An announcement for candidates will be made at the beginning of 2012.

Item 34.2: Short overview on national markets

Netherlands: Solar Keymark (SK) is getting more and more important. Subsidies are based on system test results.

F.Y.R.O.M.: Since there are at present no subsidies for solar thermal, SK is not required for subsidies. Most of the manufacturers have SK because they sell in Europe.

Austria: The market is growing for some manufacturers such as TiSUN, but not for all.

Switzerland: Market is changing from solar firms to heating firms.

Israel: 15 solar companies are existing and two have SK, 80 % of the houses have solar collectors.

Portugal: The use of solar collectors for new buildings is mandatory. Since 2010 no support is provided any more. The market is decreasing but anyway new manufacturers are establishing production facilities.

US: The market is still waiting for the take off.

Germany: After two years of approximately 25 % decrease per year the market seems now to be stabilised on the level of 2010. Due to different aspects a market increase in the future is expected.

Italy: The market is slowly increasing

Denmark: For large systems market is exploding. Compared to last year a 100 % market increase can be expected.

Spain: A building code requiring solar collectors is existing, but due to the extremely bad situation of the construction sector this fact does not influence the market in a positive way.

Poland: The market is still quite small. The recognition of SK is low, but measures to promote Solar Keymark are on the way.

Czech Republic: The market is still sleeping.

France: A third year in a row an overall market decrease is expected. The market for collective systems is increasing by more than 30 % per year.

Sweden: The market is stagnating. A shift from small to larger installation can be observed. From the beginning of 2012 onwards no subsidies are expected any more.

Greece: The market at present quite low and in a difficult situation.

Slovakia: The market is very small. Most of the solar thermal products sold in the country are imported.

Copy of Item 5: Date and place of next meetings – since next meetings are usually stated at the end of the minutes

The 12th SKN meeting (spring 2012 meeting) is scheduled for

March 20th 13:00 hrs to March 21st 14:00 hrs; (end of day one at 19:00 hrs)
at Berlin, Germany at the premises of DIN based on an invitation from Sören Scholz.

The 13th SKN meeting (autumn 2012 meeting) is scheduled for

September 19th 13:00 hrs to September 20th 14:00 hrs (end of day one at 19:00 hrs)

or

September 26th 13:00 hrs to September 27th 14:00 hrs (end of day one at 19:00 hrs)

or

October 10th 13:00 hrs to October 21th 14:00 hrs (end of day one at 19:00 hrs)

at Madrid at the premises of AENOR based of an invitation from Jaime Fernandez Gonzalez-Granda.

Note: A final decision will be made at latest until end of October 2011.

The 14th SKN meeting (spring 2013 meeting) is scheduled for

March 2013 (two days)

at the premises of SIA at Israel based on an invitation from Reuven Godali.

Note: A final decision will be made at latest until end of next.

Item 35: End of meeting

Harald Drück thanked the participants for attending the meeting and for their constructive discussions. He closed the meeting at 13:37 hrs.

The minutes were prepared by Harald Drück (Chairman of the Solar Keymark Network) in assistance with Jan Erik Nielsen (SKN Secretariat) and Maria João Carvalho (proof reading)

Stuttgart October 10th, 2011

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Annex A: List of participants

11th Meeting, Paris, October 5th & 6th, 2011

NAME	ORGANISATION
Achim Sadenwater	DIN CERTCO
Alberto Garcia de Jalon	CENER
Alexandar Prodanov	Solar Test Center in Skopje
Allard Slomp	KIWA
Andreas Bohren	SPF
Bouزيد Khebchache	CSTB
Carsten Lampe	ISFH
Christian Stadler	Sonnenkraft
Danjana Theis	IZES/TZSB
Emmanouil Mathioulakis	Demokritos
Filippo Brivio	IMQ
Francois Xavier Ball	CERTITA
Franz Helminger	AIT
Giovanbattista Traina	ISTITUTO GIORDANO S.p.A.
Giovanni Bellenda	Eurofins / Modulo-Uno
Hanspeter Weiss	Swissolar
Harald Drück	ITW
Henry Rosik	ITC Zlín
Jaime Fernandez Gonzalez-Granda	AENOR
Jan Erik Nielsen	SKN
Jana Levická	TSU Piestany
Julien Heintz	CETIAT
Kiro Mitevski	Solar Test Center in Skopje
Korbinian Kramer	ISE
Maria João Carvalho	LNEG
Mark Witt	TÜV Rheinland PLT
Martin Meingassner	TiSun / Austria Solar
Patryk Hirsler	PIMOT
Pedro Dias	ESTIF
Peter Kovacs	SP
Philippe Gay	ENERPLAN
Ralf Koebbemann-Rengers	BDH
Reuven Godali	SII
Sophie Bocquillon	CERTITA
Stefan Mehnert	ISE
Stephan Fischer	ITW
Susanne Hansson	SP CERT
Sören Scholz	DIN CERTCO

Thomas Rouweler	Kiwa
Ulrich Fritzsche	TÜV Rheinland
Vincenzo Delaqua	ICIM
Wolfgang Eisenmann	Wagner / BSW

Annex B: Presentation related to Annual collector energy output calculation tool

Status on calculation/validation of collector annual output

Coordinator: Peter Kovacs, SP Sweden

Tool development: Ulrik Pettersson, Martin Persson, Marcus Olsson and Roger Nordman SP Sweden. Bengt Perers SERC Sweden

Validation and checking: Bengt Perers SERC, SPF, Demokritos, Fraunhofer ISE, ITW, Planenergi and several other Qaist partners



SP Technical Research Institute of Sweden



Today's status

- Extension to unglazed and tracking/concentrating collectors implemented. PVT and air collectors planned for inclusion in 2011-2012
- Checking and validation carried out by several partners was recently concluded: (No major remarks)
- Minor changes and bug fixes since last SKN meeting
- To be included in the scheme rules and in EN 12975/ ISO EN 9806 asap ----> We are close to a globally harmonized procedure for Energy output calculations!!!



SP Technical Research Institute of Sweden



Results of checking Excel VS Trnsys models (ISE)

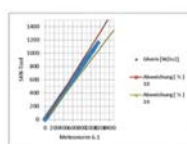


Figure 2: Hourly validation value G deviation SKN Tool and Meteonorm 6.1 for Berlin

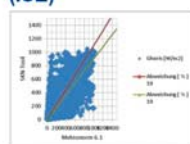


Figure 3: Hourly validation value G deviation SKN Tool and Meteonorm 6.1 for Athens

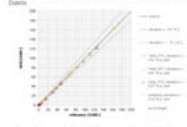


Figure 4: Deviation of Meteonorm 6.1 between type 932 and 936 Tool

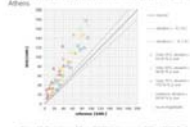


Figure 5: Deviation of Airbox 2000 between type 932 and 936 Tool

"Deviations for symmetric and asymmetric IAM:s are very low and the results are overall comparable with results generated with the Trnsys model"



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Results of checking Excel VS Trnsys models (Perers)

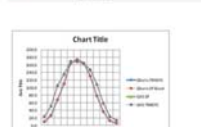
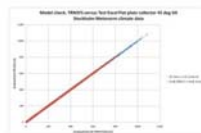


Figure 7: Deviation of Airbox 2000 between type 932 and 936 Tool

Fixed mounting 45 deg south

	Q _{tot}	Q _{useful}	Q _{loss}	Q _{loss} 25C	Q _{loss} 30C	Q _{loss} 35C
Excel/Trnsys	1.000	0.997	0.003	0.002	0.003	0.004
Excel/Trnsys	0.999	0.997	0.003	0.002	0.003	0.004

Tracking Tracking 50C

	Q _{tot}	Q _{useful}	Q _{loss}	Q _{loss} 25C	Q _{loss} 30C	Q _{loss} 35C
Excel/Trnsys	1.000	0.997	0.003	0.002	0.003	0.004
Excel/Trnsys	0.999	0.997	0.003	0.002	0.003	0.004

Figure 8: Comparison of annual sums of radiation and H₀ degree check (Perers)

"The differences in annual sums are very small"



SP Technical Research Institute of Sweden

Annex C: Information from TC 312

Secretary Reporting & Others

Jan Erik Nielsen, Solar Keymark Network Secretary

CEN/TC 312, ISO/TC 180, IEA-SHC Task 43 meetings 1-3 September, 201, Kassel

Meeting	Thursday 01-09-2011	Friday 02-09-2011	Saturday 03-09-2011
CEN/TC312 WG2, WG3	8:00-12:00		
Joint CEN/ISO WG on Collectors	p.m.		
ISO/TC 180 SC4		8:30-12:30	
ISO/TC 180 SC4		13:30-18:00	
CEN/TC 312			8:30-11:30
ISO/TC 180			11:30 – 13:30
Joint ISO/TC 180 and CEN/TC 312			14:30-16:30
IEA SHC Task 43			

11th Solar Keymark Network meeting, Paris, 5-6 October 2011

Secretary Reporting & Others

Jan Erik Nielsen, Solar Keymark Network Secretary

Joint CEN/TC 312 WG2, WG3 meeting (WG3)

WG3 / 12977

- Information on the status of FprEN12977-1, 2, 4, 5 and prEN12977-3:
 - Out for voting (UAP): **Deadline 2012-01-18**
 - Ratification 2012-02-20
 - Definitive text available 2012-04-20
 - Publication - Announcement 2012-07-20
 - Completion of all national publications 2012-10-22
 - Completion withdrawal of national standards **2012-10-22**
- Others
 - Proposal for "electronic database" underway
 - (Merging / WG2/WG3 and future 12976-1(2) and 12977-1(2))

11th Solar Keymark Network meeting, Paris, 5-6 October 2011

Secretary Reporting & Others

Jan Erik Nielsen, Solar Keymark Network Secretary

Joint CEN/TC 312 WG1, ISO/TC 180 meeting on collectors

CEN/TC312 WG 1 – improvements in revised prEN12975

- Tracking concentrating collectors
- Air collectors
- Rain penetration, Impact resistance
- Energy output calculations
- New standard for absorber surfaces (prEN12975-3-1) – glazings etc. to come
- CE marking

ISO/TC180

!!! New work item on Evacuated Tube Collectors for China → separate ISO standard for ETCs !!!

Long discussions – continuing in the night

11th Solar Keymark Network meeting, Paris, 5-6 October 2011

Secretary Reporting & Others

Jan Erik Nielsen, Solar Keymark Network Secretary

Joint CEN/TC 312 WG1, ISO/TC 180 meeting on collectors

ISO/TC180 and CEN/TC312 agree to work together on multi-part standards on Collector components and materials, under Vienna Agreement. Some parts will be CEN lead, other parts will be ISO lead.

ISO lead

- Part 1: Evacuated tube durability and performance
- Part 2: Heat pipes for evacuated tubes - Durability and performance

CEN lead

- Part 3: Absorber surface durability

Other parts to be considered under CEN lead are Glazings and Insulation materials.

Time schedules:

12975-1 & 3: EN/ENQ+FV. Next milestone: **Closure of Enquiry 2011-12-28. DAV: May 2013 or sooner.**

12975-2: EN/ENQ+FV. VA/CEN Lead. Next milestone: **Dispatch of ENQ draft to CMC 2011-10-22. DAV: Oct 2013 or sooner.**

11th Solar Keymark Network meeting, Paris, 5-6 October 2011

Secretary Reporting & Others

Jan Erik Nielsen, Solar Keymark Network Secretary

CEN/TC 312

- Liaison with CEN/TC 371 "Project committee – Energy performance of building project group" (Jan Erik Nielsen)
- Feasibility study of a merger of WG2 and WG3 standards to be done by WG2 & WG3. The aim of this possible restructuring is to make the standards more user-friendly.
- EC/TC 117 "Solar thermal electric plants" is "to prepare international standards in the field of solar thermal electric plants at system and component levels, including measurement standards for performance tests". May show considerable overlap with ongoing projects and published standards by ISO/TC 180 "Solar Energy". Work items related to solar collectors, thermal solar systems and heat storage, shall be discussed with ISO/TC 180 before being activated by IEC/TC 117. Based on the outcome of these discussions, a decision shall be taken whether these work items shall be under the responsibility of IEC/TC 117 or ISO/TC 180 or under a joint working group of both TCs.

11th Solar Keymark Network meeting, Paris, 5-6 October 2011

Secretary Reporting & Others

Jan Erik Nielsen, Solar Keymark Network Secretary

CE-MARKING (CPD):

Relates to Construction Products Directive, CPD – but also:

- Pressure Equipment Directive (PED)
- Low Voltage Directive (LVD)

has to be dealt with

- Annex ZA (CPD) under elaboration (Jan Erik Nielsen + Stephan Fisher + CEN consultant)
- Annex ZB (PED) – large collectors?, Annex ZC (LVD) – PV/T collectors?

✓ First draft annex ZA included in prEN12975-1

- Final draft annex ZA (ZB, ZC) being elaborated together with CEN consultant – to be included via "ESTIF comments" during enquiry phase.

11th Solar Keymark Network meeting, Paris, 5-6 October 2011

Annex D: Presentation related to QAiST

 <p>QAiST Quality Assurance in Solar Heating and Cooling Technology</p> <p>Solar Keymark Network meeting</p> <p>Paris, France 5-6 October 2011</p> 	<p>Work in Progress</p> <p>WP2: Solar thermal collectors WP3: Solar thermal systems WP4: Quality assurance of testing WP5: New areas for quality assurance systems</p>  
<p>Update on status of the Work Packages</p> <p>WP2: Solar thermal collectors</p>  	<p>D 2.1 Performance of mid temperature collectors (CENER lead) D 2.2 Durability of collectors and materials (ISE lead)</p> <p>→ →</p> <p>– First step</p> <ul style="list-style-type: none"> • EC request for CE marking / revision of the ISO 9806 • Two drafts are now out on CEN inquiry (EN 12975 parts -1 and -3-1) and one is ready for ISO CEN parallel inquiry (ISO EN 9806) in November 2011 • All three are planned to be implemented by the end of 2012 • Contents are e.g. harmonized annex ZA, tracking collectors in the scope, improved durability tests, Task X method on selective coatings integrated, air collectors included, etc...  
<p>D 2.1 Performance of mid temperature collectors (CENER lead) D 2.2 Durability of collectors and materials (ISE lead)</p> <p>→ →</p> <p>– Second step</p> <ul style="list-style-type: none"> • Further work on the ISO EN standards • Draft for public inquiry in 2012 • Contents are e.g. focusing on ETC:s and further on collector materials  	<p>D 2.3 Guide to EN 12975 (SP lead, Due December 2012)</p> <ul style="list-style-type: none"> • Five main partners have been working on two deliverables, one targeted at test labs (new and existing...appr. 50 pages), one at manufacturers (brief introduction...5-10 pages) → • All remaining partners and industry provide additional input and review • Available by the end of 2011   

D 2.4 Performance calculation tool

- Extension to unglazed and tracking/concentrating collectors and some minor improvements implemented as proposed by reviewers
- Checking and validation carried out by several partners was recently concluded (No major remarks)
- To be included in Scheme Rules and in ISO EN 9806 asap



Update on status of the Work Packages

WP3: Solar thermal systems



WP 3: Solar thermal systems

Improvement of the standards:

- Factory Made Systems / Custom Built Systems
(EN 12976 Part 1 and 2) / (CEN/TS 12977 Part 1, 2, 4 and 5 and EN 12977 Part 3)
- **Outcomes:**
 - Revised version of EN 12976 presented in CEN TC 312 WG2/WG3 Meeting in Kassel (September 2010);
- **Deliverables:**
 - Clarification of requirements in both standards – Final version available until end of year;
 - Guide for EN 12976 on reliability tests.



WP 3: Solar thermal systems

Development of an extrapolation procedure

- that proves to be valid for different types of systems allowing for flexibility in the definition of families of systems and reducing test costs for the manufacturers
- **Outcomes:**
 - Two different methodologies now available in Solar Keymark Scheme Rules
 - Proposals for revision presented and approved at 10th SKN meeting;
 - Application of these methodologies by Labs – exchange of experience.



WP 3: Solar thermal systems

Development of a procedure for converting the test result into results valid for the “EU reference tapping cycles”

- necessary for Labeling of systems according to European Directive for Eco-Design
 - How to apply this procedure to tests performed with DST/CSTG test methodologies?

Outcomes:

- First application with DST for Factory Made and TRNSYS for Custom Built Systems
- First proposal for application with CSTG test results – to be validated.



WP 3: Solar thermal systems

Definition of concept: Hot Water Comfort (STS)

- **Outcomes:**
 - First document with the revision of the existing test methods for assessment of Hot Water Comfort was prepared
 - Work on going on final proposal from QAIST for access of Hot Water Comfort.



Update on status of the Work Packages

WP4: Quality assurance of testing



WP 4: Quality assurance of testing

T 4.2 Round Robin
CollectorT 4.3 Round Robin
Systems

- Organization, managing and evaluation by independent body (IfEP GmbH)
- Rotation in winter 2010/2011 (completed)
- Midterm results have been presented by IfEP March 23rd and have been considered as very good by IfEP
- Final results expected October 2011



WP 4: Quality assurance of testing

★ T 4.2 Round Robin Collector

- 3 flat plate and 13 evacuated tubular collectors with CPC collectors
- Each participant test 2 collectors of both types (4 tests)
- Participants: *CENER, CSTB, DEMOKRITOS, AIT, LNEG, IPIEO, ISE, ISFH, ITC, IZES, SP TÜV, ITW*

★ T 4.3 Round Robin Systems

- 9 thermosyphon and 9 forced circulation systems
- Each participant will test 2 systems (4 tests)
- Participants: *CENER, CSTB, DEMOKRITOS, LNEG, ISE, ISFH, IZES, TÜV, ITW*



WP 4: Quality assurance of testing

★ T 4.2 Round Robin Collectors

- Additional participants
 - ASIC
 - Bosch Solarthermie GmbH
 - 6 North american test labs
- Collectors, transport, evaluation and all other expenses caused by the Round Robin will be covered by the additional participants
- In order not to influence the result of the QAiST Round Robin the evaluation will be done in parallel by IfEP



Update on status of the Work Packages

WP5: New areas for quality assurance systems



WP 5: New areas for quality assurance systems

Objectives

- To develop a basic set of requirements and test methods for emerging areas of solar thermal energy

Application is already on the market => need for quality assurance measures not covered by any standards so far e.g. large solar thermal systems, solar cooling

OR

Application is new on the market => no quality assurance measures existent yet e.g. combined solar & heat pump systems



WP 5: New areas for quality assurance systems

- To develop a basic set of requirements and test methods for emerging areas of solar thermal energy



WP 5: New areas for quality assurance systems

– Status and outlook Task 5.1

- Overview of present HP+ST systems in cooperation with Task 44/Annex 38 ongoing.
- ST and HP relevant standards collected and analysed
 - extension possibilities regarding combined systems
 - development of transparent and consistent performance evaluation system



WP 5: New areas for quality assurance systems

– Status and outlook Task 5.1

- Proposal for system classification with the focus on testing and performance evaluation requirements
- Unified concept of performance evaluation figures
 - taking into account the comparability of these systems to other technologies
 - proposed, jointly with Task 44 / Annex 38
 - Further discussion needed before finalisation until the end of 2011.



WP 5: New areas for quality assurance systems

Status and outlook Task 5.2

- Currently available function and yield control concepts have been collected and reviewed
- Workshop to discuss new VDI 2169 guideline with all relevant stakeholders being prepared
- Initial goal revised
 - harmonized technical approach on F&YC cannot be reached
 - new task objective: setting the basis for the strategic roadmap for the development and implementation of F&YC



WP 5: New areas for quality assurance systems

Status and outlook Task 5.3

- Data collected on running solar cooling systems
- Results from the collected data, including qualitative assessment of the installations in terms of performance and quality, available
- Based on the results, additional in-depth questionnaire was defined and experts' interviews are ongoing



WP 5: New areas for quality assurance systems

Status and outlook Task 5.3

- The collection of relevant standards and other normative documents was carried out. The documents will be analysed and used as a starting point for the development of test method proposals.
- A definition of best practice and lessons learned will be published on the project intranet



Update on status of the Work Packages

WP6&7: Communication and Dissemination



WP 6&7: Communication and Dissemination

T6.1 Distr. dissemination of project results

- Prepare initial info-release for 2011
- Inform on CE marking mandate & planned revisions
- Previously: update of national reports from SK II
 - AT, CZ, DK, ES, FR, DE, GR, IT, MK, PL, PT, SE
- Several presentations at international level
 - ISES conference:
 - Midterm result of the Round Robin test of solar collectors and solar thermal system
 - Global certification of solar collectors
 - Energy output calculation tool for Solar thermal collector
 - Test methods for solar thermal collectors



WP 6&7: Communication and Dissemination

T6.1 Distr. dissemination of project results

- Several presentations at international level
 - ESTEC 2011 - 5th European Solar Thermal Energy Conference, Marseille:
 - Interim results of QAiST project
 - Performance evaluation of solar thermal and heat pump hybrid systems
 - April 2012
 - Meeting of CEN/TC 312/WG1, location to be confirmed
 - Discussion on comments from public review
 - June 2012
 - Meeting of CEN/TC 312/WG1 and CEN/TC 312, Borås Sweden
 - Approval of final draft and submission to final vote on EN 12975
 - Several presentations at National level



WP 6&7: Communication and Dissemination

T6.5 WP6/ International harmonization

- Broad European participation in IEA SH&C Task 43 on global standards and certification--> Harmonization in practice!
- Presentations at ISO/TC 180, CEN TC 312 and IEA-SHC Task 43
- Agreed with ISO/TC 180 to have the ISO 9806 revision follow closely that of EN 12975



WP 6&7: Communication and Dissemination

T6.5 SK implementation in CEE NMS

- Workshop Northern Europe
 - First scheduled for Spring 2010
 - Proposal from PIMOT: 14 Dec 2011
 - Organise jointly with project meeting – 15-16 December
 - Content being finalised



WP 6&7: Communication and Dissemination

• T6.5 SK implementation in CEE NMS

- Information package for CEE new members states produced
 - Brochure produced
 - Information package being developed
- Participation of NMS partners at SKN Meetings (T4.2)
 - Cyprus / Slovakia / Czech Republic
 - Macedonia (FYRO) / Albania



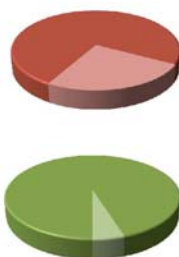
Annex E: County Report Slovakia

<p>Quality assurance of solar technology products in the Slovak Republic</p> <p>Solar Keymark Network Meeting October 5. - 6. 2011 Paris, France Emanuel Godal, TSU Piestany</p>   <p>Solar Keymark Network Meeting October 5. - 6. 2011 Paris, France</p>	<p>Brief introduction of TSU Piestany</p> <p>Key activities :</p> <p>Conformity assessment Notified Body No. 1299 for following New Approach Directives:</p> <table border="0"> <tr> <td>89/106/EEC</td><td>Construction products</td></tr> <tr> <td>92/42/EEC</td><td>Efficiency requirements for new hot water boilers</td></tr> <tr> <td>93/42/EEC</td><td>Medical devices</td></tr> <tr> <td>97/23/EC</td><td>Pressure equipment</td></tr> <tr> <td>2000/14/EC</td><td>Noise emission in the environment by equipment for use outdoors</td></tr> <tr> <td>2004/108/EC</td><td>Electromagnetic compatibility</td></tr> <tr> <td>2006/42/EC</td><td>Machinery</td></tr> <tr> <td>2006/95/EC</td><td>Electrical equipment designed for use within certain voltage limits</td></tr> <tr> <td>2009/48/EC</td><td>Safety of toys</td></tr> <tr> <td>2009/105/EC</td><td>Simple pressure vessels</td></tr> <tr> <td>2009/142/EC</td><td>Appliances burning gaseous fuels</td></tr> </table>   <p>Solar Keymark Network Meeting October 5. - 6. 2011 Paris, France</p>	89/106/EEC	Construction products	92/42/EEC	Efficiency requirements for new hot water boilers	93/42/EEC	Medical devices	97/23/EC	Pressure equipment	2000/14/EC	Noise emission in the environment by equipment for use outdoors	2004/108/EC	Electromagnetic compatibility	2006/42/EC	Machinery	2006/95/EC	Electrical equipment designed for use within certain voltage limits	2009/48/EC	Safety of toys	2009/105/EC	Simple pressure vessels	2009/142/EC	Appliances burning gaseous fuels
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<p>Brief introduction of TSU Piestany</p> <p>Certification</p> <ul style="list-style-type: none"> • Products (Body accredited to EN 45011) • QMS (Body accredited to EN ISO/IEC 17021) • Persons (Body accredited to EN ISO/IEC 17024) <p>Inspection (Body accredited to EN ISO/IEC 17020)</p> <p>Testing (Labs accredited to EN ISO/IEC 17025)</p> <p>Main area of Product Certification and Testing: machinery, equipment, devices and units intended to use in household, services, machinery, gas, printing, chemical and wood-working industry, construction products, solar thermal products, metallurgical products, steel ropes, consumer goods, gaming machines, metal packagings</p>   <p>Solar Keymark Network Meeting October 5. - 6. 2011 Paris, France</p>	<p>Regulatory framework</p> <p>Requirements of legislation for solar collectors and systems in the Slovak Republic are in accordance with EU legislation.</p> <p>The Slovak Republic follows solely its own legislative requirements in the field of grants for solar collectors.</p>   <p>Solar Keymark Network Meeting October 5. - 6. 2011 Paris, France</p>																						
<p>Public Incentives</p> <p>Grants for solar collectors have been allocated since 2010. In 2011, applications for grants for solar collectors and biomass boilers are reviewed according to revised terms of the „Appeal for application submit to support usage of biomass and solar energy.“</p> <p>Grant</p> <ul style="list-style-type: none"> • 200 € for 1 m² of solar collectors surface installed in a family house, within the range of max. 8 m² of the surface, • 100 € for 1 m² of solar collectors surface installed in an apartment house; max. amount granted is 300 € for each apartment, which uses hot water from installed solar collectors. <p>Technical terms of grants</p> <ul style="list-style-type: none"> • Application form submitted by owner of family house, apartment house or administrator of apartment house to gain the grant, • Solar Keymark Certificate for installed type of collector, • Certificate of minimal energy yield of 525 kWh/year /1 m² of the surface (issued by TSU Piestany)   <p>Solar Keymark Network Meeting October 5. - 6. 2011 Paris, France</p>	<p>Public Incentives</p> <p>Certificates of minimal energy yield of 525 kWh/year /1 m² of the surface issued:</p> <ul style="list-style-type: none"> • in 2009 - 19 pcs • in 2010 - 134 pcs • in 2011 - 42 pcs <p>Number of application forms for grants to 27.7.2011:</p> <ul style="list-style-type: none"> • Solar collectors in family houses - 4529 pcs • Solar collectors in apartment houses - 37 pcs <p>Total number of all application forms for solar collectors to 27.7.2011 is <u>4566</u>.</p> <p>Total number of all approved grants for solar collectors to 27.7.2011 is <u>4115</u>. The approved sum of grants is <u>3 994 340 €</u></p> <p>Minimal production of solar heat at guaranteed solar yield of 525 kWh/year /1 m² : 13 614 300 kWh/year.</p>   <p>Solar Keymark Network Meeting October 5. - 6. 2011 Paris, France</p>																						

Public Incentives

Number of households with solar collectors to 27.7.2011:

- Family houses - 4529 pcs
- Apartments in apartment houses - 1559 pcs



Installed surface:

- Installed surface of solar collectors in family houses: 24 647 m²
- Installed surface of solar collectors in apartment houses: 1 285 m²

Total installed surface of solar collectors: 25 932 m²



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Testing

There is only one testing institute for testing of solar collectors and solar components in the Slovak Republic - TSU Piestany (lab accredited according to STN EN ISO/IEC 17025:2005)

This testing institute was recognized as Testing Laboratory in Solar Keymark System.

TSU Piestany performs testing on the base of standards of EN 12975 and EN 12976 series.



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Certification

Product Certification:

- Voluntary Product Certification of solar collectors and systems
- 1 Certification Body empowered by CEN for issue of Solar Keymark licenses – TSU Piestany (ID 029)

Certification of installation and service technicians:

- under preparation according to EU Directive 2009/28/EC on the promotion of the use of energy from renewable sources



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Insurance

Solar collector is mostly a part of building insurance.

There are also various types of insurance for solar systems that are not part of the building, or building insurance.



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Other relevant information

Solar Keymark promotion in the Slovak Republic

Representatives of TSU Piestany took part on specialized events:

- SLOVAK INNOVATIVE ENERGY AGENCY workshop to the REQUEST Project, Bratislava 18.1.2011, Mr. Emanuel Godál
- International Conference – Heating 2011, Stará Ľubovňa 28.2. – 4. 3. 2011, Section of Renewable Energy Sources, Mr. Igor Kuruc, Mr. Emanuel Godál
- European Days of Solar Energy, 12.-13.5.2011, Piešťany, Mr. Tomáš Bednárík
- CONECO RACIOENERGY 2011 – international fair, 29.3. - 2.4. 2011, Bratislava, promotion, Mr. Emanuel Godál, Mr. Tomáš Bednárík

Promotion:

- Brochures about Solar Keymark provided by TSU
- Brochure about Solar Keymark provided by ESTIF – Slovak version
- Information on web-site of TSU www.tsu.sk



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Trade Barriers

There are no trade barriers on Slovak market.



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Actions needed

It is necessary to prepare national certification plan for service technicians based on EU Directive 2009/28/EC on the promotion of the use of energy from renewable sources.



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Thank you for your attention



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