

Solar Keymark Network

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



Minutes

23. Solar Keymark Network Meeting October 17th –18th, 2017; Larnaca, Cyprus

Item 1: Opening of the meeting

Harald Drück opened the meeting in his role as SKN deputy chairman and welcomed the participants as well as the guests. He thanked George Nikolaidis from TÜV NORD CYPRUS for hosting the meeting at this beautiful place and Jan Erik Nielsen as the manager of the Solar Keymark Network and also Panayiotis Kynighos from TÜV NORD CYPRUS for the excellent preparation of the meeting. George Nikolaidis also welcomed the participants and gave some practical information, concerning the dinner planned for the evening and sponsored by TÜV NORD CYPRUS.

Harald Drück explained that the present SKN chairman Jaime Fernandez Gonzalez-Granda changed his job and went to Canada. Hence he will not be able to act as SKN chairman any more. Harald Drück thanked Jaime Fernandez Gonzalez-Granda for the work he had done in the past two years as SKN chairman. Furthermore Harald Drück explained that he was asked by Jaime Fernandez Gonzalez-Granda to chair this meeting and that he agreed with pleasure doing this as he has been SKN chairman for more than ten years and is now honorary SKN chairman.

Harald Drück gave a short explanation about the Solar Keymark Network (SKN). The main task of the SKN is to agree on uniform procedures between the different actors (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 SKN are described in the “Solar Keymark Network Internal Regulations” (Document SKN_N0102)

Harald Drück mentioned the **concept related to resolutions and decisions:**

Resolutions directly influence the Solar Keymark specific scheme rules (document SKN_N0106) and the Solar Keymark Network Internal Regulations (document SKN_N0102) and hence shall be implemented in the next version of them.

Decisions are other important agreements achieved on the meeting that have to be included in the latest version of the Solar Keymark decision list (document SKN_N0100).

He also mentioned that this will be the first physical meeting where voting will be done only electronically by using a WEB-based tool. Hence, everybody should make sure that he/she has internet access. The reason for this approach is that in the future only one physical meeting will be held every year, instead of two as it was the case up to now, and therefore a reliable electronic voting procedure is needed. This meeting acts as a kind of final trail for electronic SKN voting.

The description how to use the voting tool is available as document SKN_N0355R0.

The meeting took place from Tuesday, October 17th, 2017, 13:00 hrs till Wednesday October 18th, 2017, 14:00 hrs at the Lordos Beach Hotel, Larnaca, Cyprus

The first invitation including the first draft agenda (Document SKN_N0331R0) of the meeting was sent out by email from Jan Erik Nielsen dated May 18th, 2017. `

Item 2: Introduction of participants

The participants attending the meeting physically introduced themselves and mentioned their nominating organisation or institution respectively.

Since this meeting was also additionally transmitted via internet, Harald Drück asked the persons following the meeting via Internet to send an email with their name and their institution to Jan Erik Nielsen and to him to confirm their virtual presence.

The list of participants that attended the meeting physically and electronically is attached as Annex A.

As a result of the introduction of participants Harald Drück stated that the preconditions for voting according to the clause 4.2 of the Solar Keymark Network internal regulations (Document SKN_N0102R10) were fulfilled.

Item 3: Approval of the agenda

Following the first draft agenda (Document SKN_N0331R0) send out on May 18th, 2017, in the last weeks, updated versions of draft agenda as well as documents 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 “23th Solar Keymark Network meeting – Revised final draft agenda (R5)” document SKN_N0331R5 dated 2017-10-13 and send out by Jan Erik Nielsen on October 13th, 2017.

This version of the agenda was presented and the following modifications were proposed.

Jan Erik Nielsen presented a request from Ashraf Kraidy to treat his SCF proposal towards the end of the first day of the meeting (October 17th, 2017); see item 30 (Proposal for decision: Priorities for SCF 9th call) documents SKN_N0353R0 and SKN_N0354R0 for further information.

Stephan Fischer mentioned that related to item 9 (Report from "10% Rule WG") he will presented a document with a first proposal.

Harald Drück mentioned that for logical reasons it would make sense to discuss all the proposals of item 30 in one sequence and not only with the proposal of Ashraf Kraidy.

As there were no objections doing this, it was agreed to proceed in that way. Discussion on item 30 will start today (Oct. 17th, 2017) at around 17:00 hrs.

Furthermore Harald Drück mentioned that the title of item 4 is partly wrong. Correct wording is “Comments and approval to the minutes of the SKN meeting 22” (instead of 21A (web))

All proposals were accepted and a modified agenda was prepared by Jan Erik Nielsen as document SKN_N0331R6. Hence this version of the agenda will be the basis for this meeting

Item 4: Comments and final approval of the minutes of SKN meeting 22

Harald Drück mentioned that the link to the draft minutes of the 22rd Solar Keymark Network meeting (File: SKN_N0330R0.pdf) were sent out by Jan Erik Nielsen to the SKN by email dated April 7th, 2017.

Within the 30 days following this email no comments were received by Jan Erik Nielsen and Jaime Fernandez Gonzalez-Granda (SKN Chairman).

Hence, the present version of the document SKN_N0330 is approved unanimously as the final minutes of the 22th Solar Keymark Network meeting, leading to document SKN_N0330R1, since the word “final” was included in the heading.

Note: The final version of the minutes is available from:

<http://www.estif.org/solarkeymarknew/network/sknmeetings>

Item 5: Review of decision list and follow-up of action list

As agreed at the 16th Solar Keymark Network meeting Jan Erik Nielsen reviewed the latest version of the decision list (document SKN_N0100R20.pdf) and the Solar Keymark Network action list (document SKN_N02863R9) in order to identify topics where further action is needed.

There were no comments to the decision list and the action list.

Item 6: Structure and organisation of SKN meetings

As agreed at the last SKN meetings starting in 2018, the structure of SKN meetings changes into one physical meeting to be held in spring time and one WEB meeting to be held in autumn.

A proposal for the structure of these meetings is presented by Pedro Dias and Jan Erik Nielsen (see document SKN_N0352R0).

The new structure was discussed and finally the following resolution was made:

Resolution M23.R1 – New structure of SKN meetings

From 2018 onwards there will be one physical meeting to be held in spring time and one WEB meeting to be held in autumn.

The structure of the meetings will be as describe in document SKN_N0352R0 with the

following modification:

- At all meetings resolutions and decision can be taken.
- The requirements for mandatory participation will be modified
- The physical SKN meetings should be combined with the meeting of CEN TC 312

Voting at meetings could be performed using an online web based voting tool.

Information on vote: 19 (100 %) positive votes, 0 (0 %) negative votes, 0 (0 %) abstentions of in total 19 votes

In order to integrate the new structure of the SKN and also the electronic voting procedure in the Solar Keymark Network Internal Regulations (document SKN_N0102) a working group consisting of the following persons was established at the 22nd SKN meeting:

Katharina Vehring (born Meyer) (Chair), Andreas Bohren, Pedro Dias, Harald Poscharnig, Harald Drück

Hence the following decision was made

Decision M23.D1 – Update of Solar Keymark Network Internal Regulations (document SKN_N0102)

The WG consisting of Katharina Vehring (born Meyer) (Chair), Andreas Bohren, Pedro Dias, Harald Poscharnig, Harald Drück, that was created at the 22nd SKN meeting, will continue its work and prepare and update of the Solar Keymark Network Internal Regulations (document SKN_N0102) to adapt them to the new structure for SKN meeting and the electronic voting procedure according to resolution M23.R1.

A revised version of the Solar Keymark Network Internal Regulations should be presented for voting at the next SKN meeting.

Information on vote: 20 (95 %) positive votes, 0 (0 %) negative votes, 1 (5 %) abstentions of in total 21 votes

Item 7: Election of the SKN Chairman

As already mentioned by Harald Drück the current SKN Chairman Jaime Fernandez Gonzalez-Granda will not be available as chairman any more. Due to this, a call for candidates was announced on Sept. 28th, 2017 by Jan Erik Nielsen. In order to avoid a period without chairmanship a new chairman should be elected at this meeting.

The situation was discussed and the following decision was taken:

Decision M23.D2 – Date for election of SKN chairman on the 23rd SKN meeting

The election of a new SKN chairman shall be performed at the 23rd SKN meeting.

Information on vote: 23 (96 %) positive votes, 0 (0 %) negative votes, 1 (4 %) abstentions of in total 24 votes

Before the meeting only Dr. Andreas Bohren did announce his candidature. Harald Drück asked for additional candidates but no one offered to be a candidate. Hence Dr. Andreas Bohren was nominated as the only candidate

Harald Drück gave Andreas Bohren the opportunity for a presentation of his self as well as to his plans and goals for the SKN; see also document SKN_N0338R0.

After this presentation the election was performed as the following decision:

Decision M23.D3 – Election of SKN chairman at the 23rd SKN meeting

Voting on Dr. Andreas Bohren as the new chairman of the SKN

Information on vote: 23 (92 %) positive votes, 0 (0 %) negative votes, 2 (8 %) abstentions of in total 25 votes

Harald Drück congratulated Dr. Andreas Bohren to his success and wished him and the Solar Keymark Network all the best. He is elected for a period of 3 years.

It was agreed that the formal change of SKN chairmanship will be performed by November 1st, 2017. Hence Harald Drück continued to chair the meeting as deputy chairman.

Item 8: Date & place of next Solar Keymark Network (SKN) meetings

The **24th SKN meeting** (spring 2018 meeting) will be a physical meeting and is scheduled for **March 6th, 13:00 hrs to March 7th, 14:00 hrs, 20 18** (end of day one at 19:00 hrs) and will take place in Madrid based on an invitation of Maria del Val Varas Garcia from AENOR.

The **25th SKN meeting** (autumn 2018 meeting) will be a web meeting and is scheduled for **October 23rd, 9:00 hrs to 12:00 hrs and October 24th, 9:00 hrs to 12:00 hrs, 2018**

The **26th SKN meeting** (spring 2019 meeting) will be a physical meeting and is scheduled for **March 5th, 13:00 hrs to March 6th, 14:00 hrs, 2019** (end of day one at 19:00 hrs) and will take place in Gothenburg based on an invitation of Magnus Stureson from RISE (former SP).

Item 9: Report from the “10 % Rule WG”

With decision M21.D1 (Establishment of new WG to revise the 10% Rule of section 6.3 of Solar Keymark Scheme Rules and to study financial possibilities for dealing with complaints) a working group consisting of the following persons was created:

Harald Drueck(Chair), Jan Erik Nielsen, Katharina Meyer, Jaime Fernández, Stephan Fischer, Harald Poscharnig, Christian Stadler, Sophie Bocquillon, Pedro Dias, technical expert from ESTIF and Korbinian Kramer.

Pedro Dias mentioned that the technical expert from ESTIF/SHE is Stefan Abrecht.

The task of the WG is to elaborate and present a revised procedure how to revise the 10% Rule of section 6.3 of the SK scheme rules and to propose a resolution for a modified approach.

Harald Drück mentioned that parts of the WG successfully applied for funding of the activity within the 8th SCF call so that there is now a SCF project named SCF8-Special-Test – Support of the Working Group “Complaints”.

On behalf of Harald Drück his colleague Stephan Fischer presented a first proposal for a modification of the 10% rule. The presentation is available as document SKN_N0359R0.

The proposal of Stephan Fischer was discussed and in principle the concept was appreciated. However with regard to the proposed values some serious concerns were expressed, so especially these values have to be reconsidered. Stephan Fischer encouraged the SKN members to send him comments related to the proposal.

Item 10: Updates and proposal for resolution on system data sheets

Jorge Facao, a colleague of Maria Carvalho presented an updated version of data sheets for solar thermal systems; see document SKN_N0106_AnnexB2_R4.4-system.xlsx. Especially the presentation of the system performance model parameters determined according to ISO 9459-2 and ISO 9459-5 used for the system performance prediction was included. The Data sheet also includes the possibility to report results based on the new version of EN 12976-2:2017 and EU regulations CDR 811,812,813.

The data sheet was discussed and finally the following resolution was made:

Resolution M23.R2 – Approval of new system data sheet

The new version of the system data sheet as presented by document SKN_N0106_AnnexB2_R4.4-system.xlsx will be included as new Annex B2 in the current version of the Solar Keymark Scheme rules (document SKN_N0106R30) leading to document SKN_N0106R31.

Before this inclusion minor modifications as proposed by Gerard van Amerongen will be performed. Furthermore the tolerances mentioned in the data sheet shall be deleted.

For system data sheets issued from Jan. 1st, 2018 onwards the new system data sheets shall be used.

Already existing systems data sheets remain valid.

Information on vote: 19 (73 %) positive votes, 1 (4 %) negative votes, 6 (23 %) abstentions of in total 26 votes

Item 11: Transition process for new version of EN 12976-1 and -2

The standards EN 12976-1 and EN 12976-2 were revised during the last years. Now the revised version of Part 1 is available as DIN EN 12976-1:2017-04.

Katharina Vehring (born Meyer) presented the document SKN_N0341R0 related to EN 12976-1:2017-04 and Ulrich Fritzsche the document SKN_N0364R0 related to EN 12976-2:2017-04.

The changes were discussed, especially also with regard to the question if they imply any changes in the SK scheme rules.

As a key result of the discussion it was proposed to perform a special workshop for the test laboratories dedicated to the new test procedures and methods included in the new version of

EN 12976-1 and -2. For that purpose funding from the SCF should be requested (see also item 30)

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

Decision M23.D4 – Transition process for new (2017) version of EN 12976-1 and -2

All factory made thermal solar heating systems according EN 12976-1:2017 shall be tested according to the new EN 12976-2:2017 from 1st of May 2018 onwards.

After 1st of November 2018 all SK certificates for factory made thermal solar heating systems (according EN 12976-1) shall be issued according to the new standard EN 12976-1:2017.

Existing SK certificates based on previous versions of EN 12976-1 and -2 shall remain valid.

Specific errata for the ERP-tests shall be elaborated and followed.

For the elaboration of the errata until the end of 2017 a working group of the following persons will be established:

Ulrich Fritzsche (chair), Gerard van Amerongen, Vinod Shama

Information on vote: 17 (81 %) positive votes, 1 (5 %) negative votes, 3 (14 %) abstentions of in total 21 votes

Item 12: Transition process for new version of EN ISO 9806:2017

The standard EN ISO 9806:2013 was revised during the last years, and now the revised version is available as EN ISO 9806:2017.

Andreas Bohren presented the changes in the new version (compared to the old one) by means of document SKN_N0334R0.

The changes were discussed, especially also with regard to the question if they imply any changes in the SK scheme rules.

It was agreed that the changes in the solar collector data sheet as presented in the presentation of Andreas Bohren (document SKN_N0334R0) should be performed by Patrik Ollas from RISE. He will estimate the work required to perform the modifications and propose a budget required for this activity.

Item 13: Removing of “13.2 Negative pressure test of the collector” from SK scheme rules

Andreas Bohren proposed to remove the exclusion of the negative pressure test of tubular collectors according to 5.9.2 EN 12975-2:2006 from the requirements in the SK scheme rules due to the following reason: The negative pressure test is intended to assess the extent to which the fixings between the collector cover and collector box are able to resist uplift forces caused by the wind.

He proposed that there shall be a remark on the Solar Keymark certificate in case the negative pressure test was not performed as long as the pressure test is still mandatory according to the corresponding collector test standard.

His main arguments to remove the exclusion of the negative pressure test of tubular collectors were that it is now also included in ISO 9806:2017 and also it is not logical to exclude ETCs as now appropriate test methods are available.

The proposal was discussed and the following resolution was made:

Resolution M23.R3 – Removing of “13.2 Negative pressure test of the collector” from SK scheme rules

Section 13.2. (Negative pressure test of collectors) will be deleted from the SK scheme rules leading to document SKN_N0106R31 as revised version of the SK scheme rules.

Information on vote: 17 (66 %) positive votes, 4 (15 %) negative votes, 5 (19 %) abstentions of in total 26 votes

Item 14: Removing of “13.5 Pre-ageing of solar collector test samples” from SK scheme rules

Andreas Bohren proposed to remove the pre-ageing of solar collector test samples from the SK scheme rules with the argument that the pre-ageing procedure is now included in ISO 9806:2017.

The proposal was discussed and the following resolution was made.

Resolution M23.R4 – Removing of “13.5 Pre-ageing of solar collector test samples” from SK scheme rules

Section 13.5 (Pre-ageing of solar collector test samples) will be deleted from the SK scheme rules leading to document SKN_N0106R31 as revised version of the SK scheme rules.

Information on vote: 20 (77 %) positive votes, 2 (8 %) negative votes, 4 (15 %) abstentions of in total 26 votes

Item 15: Energy labelling: review of Lot1 & Lot2

Hendrik Martijn van Elburg from the company VHK presented the latest developments related to energy labelling according to Lot1 and Lot2. The presentation is available as document SKN_N0365R0.

The presentation was discussed and some questions were asked by the participants and answered by Martijn van Elburg.

Most important aspects:

Register at: www.ecoboiler-review.eu
and www.ecohotwater-review.eu

in order to be informed about stakeholder meetings and latest developments of the study performed by VHK.

No new energy efficiency requirement and no re-scaling will be proposed by VHK as this is part of the new energy labelling directive (2017/1369) that was published on 28.07.2017 .

In addition Pedro Dias presented specific aspects relevant for the energy labelling and third party certification of solar thermal products as well as information about the timing of the corresponding activities. The presentation is available as document SKN_N0376R0.

Gerald van Amerongen mentioned that a new version of EN 15316-4-3 was published recently with an improved version of the SOLCAL method.

Item 16: Labelpack A+: the package label, SKN and energy labelling

Pedro Dias presented the latest results of the Labelpack A+ project, especially also with regard to the Solar Keymark certification and energy labelling based on the presentation attached as document SKN_N0376R0.

One of the most relevant questions concerning SK is the question how synergies can be created between Labelpack A+ and the Solar Keymark. To further elaborate this question there are also activities performed within a corresponding SCF project.

Item 17: Update on collector data sheet? Need for allocation of funding?

As already mentioned related to item 12 (Transition process for new version of EN ISO 9806:2017) it was agreed that Patrik Ollas from RISE will estimate the work required to perform the modifications resulting for the new version of EN ISO 9806:2017 as well as for the inclusion of open to ambient solar air heating collectors (see item 18) on the SK data sheet and the ScenoCalc software and propose a budget required for these activities.

Item 18: Report and Proposal for resolution from “Air collector WG”

Korbinian Kramer reported by means of a presentation (document SKN_N0356R0) about the deficits in the SK certification scheme for Solar Air Heating Collectors (SAHC). Furthermore he presented a proposal for a data sheet for SAHC. This data sheet is an improved version of the original data sheet distributed as document SKN_N0357R0.

The issues were discussed and the following resolution was made:

Resolution M23.R5 – Data sheets for “open to ambient” solar air collectors

A modified version of the data sheet according to document SKN_N0357R1 shall be used for reporting of open to ambient solar air heating collectors.

Hence the new data sheet will be included in the current version of the Solar Keymark Scheme rules (document SKN_N0106R30) leading to document SKN_N0106R31.

Already existing data sheets for “open to ambient “ solar air collectors remain valid.

Information on vote: 19 (79 %) positive votes, 0 (0 %) negative votes, 5 (21 %) abstentions of in total 24 votes

Item 19: Report and Decision/Resolution on activities from “PVT collector WG”

Ulrich Fritzsche as the chair of the “PVT collector WG” reported about the latest activities related to PVT collectors. In order to estimate the relevance he asked the representatives of all SKN test labs if they are at present performing tests of PVT collectors. Due to the fact that 7 test labs are dealing with the testing of PVT collectors the topic is considered as relevant.

Furthermore he mentioned that he handed in a proposal for a decision on funding of the “PVT collector WG” as a priority topic of the 9th SCF call”. This decision was taken (see also item 30)

Item 20: New equivalent absorber coatings?

No new absorber coatings to be considered as equivalent were presented for this meeting.

Item 21: New equivalent glazing

No new glazing to be considered as equivalent were presented for this meeting.

Item 22: New equivalent thermal insulation materials

Andreas Bohren reported that SPF has 8 different thermal insulation materials that should be registered in the new insulation database as defined in Annex K (Exchange of Insulation Materials in Solar Thermal Collectors) of the SK scheme rules.

By means of document SKN_N0335R0 and an annex as ZIP-File with several document he presented a proposal for registration of insulation materials.

The topic was discussed and the following decision was made:

Decision M23.D5 – Integration of new thermal insulation materials in SKN scheme rules, Annex K (Database)

The 8 thermal insulation materials described in document SKN_N0335R0 are integrated in the database of insulation materials of Annex K of the Solar Keymark Scheme Rules (document SKN_N0106R30)

Information on vote: 20 (80 %) positive votes, 0 (0 %) negative votes, 5 (20 %) abstentions of in total 25 votes

Item 23: Update regarding new EN 12975

Andreas Bohren reported about the TC 312/WG 1 meeting that took place on Oct 17th, 2017 in the morning by means of a presentation available as document SKN_N0368R0. The basis for the discussion was the latest draft version of the standard (see also document SKN_N0348R0).

In principle the elaboration of the new EN 12975 is well on the way. Most challenging aspect is that several EU directives and regulations such as the, CPR, the pressure directive, the low voltage directive and the machinery directive have to be taken into account.

It is planned to send a draft version of the standard to CEN by the end of 2017.

Item 24: Proposal for decision on ‘thermodynamic’ solar collectors

J R Hernández from AENOR reported about the topic of the so-called thermodynamic solar collectors by means of document SKN_N0351R0.

The topic was discussed and Harald Drück proposed to make a resolution clarifying that so-called “thermodynamic collectors” are considered as solar collectors within the scope of EN 12975 and ISO 9806.

As there were substantial objections especially from the industry member representatives a decision on this topic was postponed by applying the following rule of chapter 4.3 (rules for final decisions) of the SKN internal regulations (document SKN_N0102):

*If a minimum of three national industry member representatives (see clause **Fejl!** **Henvisningskilde ikke fundet.**) are present at the meeting, a 2/3 majority within this group can claim a final decision to be postponed until the next meeting (not to be held, at least, in the following 4 months) or a voting based on correspondence can be performed.*

Note: 5 out of in total 6 industry member representatives supported the postponement.

It was agreed to establish a working group to clarify the aspect of the so-called “thermodynamic collector” and to present a proposal for a decision at the next SKN meeting:

The “**Thermodynamic WG**” is consisting of the following persons:
Sören Scholz (Chair), Stephan Fischer, Harald Poscharnig, Pedro Dias, Sophie Bocquillon, Maria del Val Varas Garcia, Harald Drück

Item 25: Update on “Action Plan 2 Marketing and Communication WG and presentation and approval of SKN marketing plan

Pedro Dias presented (see SKN_N0377R0) the final version of the marketing plan for the Solar Keymark as described in the documents SKN_N0342R0 and SKN_N0343R0

The plan was discussed and the following decision was made:

Decision M23.D6 – Solar Keymark Marketing Plan

The marketing plan for the Solar Keymark as described in the documents SKN_N0342R0 and SKN_N0343R0 is approved with the addition that values of the activities funded by SCF (Solar Certification Fund) should be highlighted to the stakeholders.

Information on vote: 18 (67 %) positive votes, 0 (0 %) negative votes, 9 (33 %) abstentions of in total 27 votes

Item 26: SKN fees and budget for 2018 and other financial issues

Jan Erik Nielsen and Pedro Dias presented document SKN0345R0 (Solar Keymark Network-Administration Budget 2018), SKN_N0346R0 (SKN fee income and expenses 2016 & 2017) and SKN_N0347R0 (Services to be provided by SHE (former ESTIF) to the Solar Keymark Network in 2018).

A financial status was given by Pedro Dias - see SKN_N0372R0.

The documents were discussed and the following resolution and decision were made:

Resolution M23.R6 – SKN fees for 2018

For 2018 the Solar Keymark Network fees will not be changed compared to 2016 and 2017. Hence, the fees will still be as follows:

maintype fee of 50 €

subtype fee of 230 €

The facts mentioned above are reflected in document N0106_AnnexC_R19.docx. This document is approved as the latest version of Annex C of the Solar Keymark specific scheme rules.

Information on vote: 24 (100 %) positive votes, y (0 %) negative votes, z (0 %) abstentions of in total 24 votes

Decision M23.D7 – SKN Budget for 2018

The budget of the SKN for 2018 as specified in documents SKN0345R0 (Solar Keymark Network-Administration Budget 2018), SKN_N0346R0 (SKN fee income and expenses 2016 & 2017) and SKN_N0347R0 (Services to be provided by SHE (former ESTIF) to the Solar Keymark Network in 2018) is accepted by the Solar Keymark Network.

Information on vote: 26 (100 %) positive votes, 0 (0 %) negative votes, 0 (0 %) abstentions of in total 26 votes

Jan Erik Nielsen announced that 2018 will be his last year as Solar Keymark Manager. A call for new candidates for this position should be done during 2018.

Harald Drück and the participants of the SKN meeting thanked Jan Erik for all the efforts and the professional work he and done since the creation of the Solar Keymark nearly 20 years ago and expressed their regrets about this decision of Jan Erik Nielsen. However it was also clearly understood and accepted that after such a long and successfully time Jan Erik Nielsen is interested to focus on other activities as well.

Item 27: SCF project: 8C04.1 SK-Scope-Products

Gerard van Amerongen presented the results SCF Project “8C04.1 related to “broadening the scope for solar thermal products” based on the project report available document SKN_N0349R0 by means of a presentation available as documents SKN_N0360R0.

The work of Gerard van Amerongen was appreciated and there was an agreement that there is a continuation for these activities needed in order to develop a new and improved method for

certifying solar thermal systems. Hence a corresponding topic will be included in the 9th SCF call for proposals; see also item 30.

Item 28: SCF project: 6C14_1_Other_model

Gerald van Amerongen presented the work performed related to the implementation of an open source hourly software tool named SolTherm as described in the final project report available as document SKN_N0350R0 by means of a presentation available as documents SKN_N0360R0.

As the only system certification according to EN 12977-2 is still waiting for a fully harmonized method for the calculation of the annual solar energy gains by the use of the new simulation tool SolTherm based on the current EPBD standards, the use of SolTherm for an at least preliminary energy yield simulation seems suitable. In this special case of the first issued EN 12977 certificate, it will be possible to perform an energy yield validation in comparison with performed DST-Test results and their Long Term Prediction results. In this first step, the validation will be limited to water heating and solar only systems. Ulrich Fritzsche and Gerald van Amerongen are quite sure, that this procedure will improve the SolTherm tool and bridge the gap for the time being, until a final method for the long term prediction is confirmed by the SKN.

The topic was discussed and the following decision was made:

Decision M23.D8 – SolTherm software for EN 12977-2 system simulations

The Solar Keymark Network accepts SolTherm as a preliminary and alternative method for energy yield prediction for the EN 12977 Solar Keymark data sheet, if an appropriate validation of SolTherm for the used system design is available. The used simulation tool as well as the preliminary acceptance will be mentioned on the data sheet.

Information on vote: 18 (64 %) positive votes, 0 (0 %) negative votes, 10 (36 %) abstentions of in total 28 votes

Item 29: Update on voting of new SCF Chairman

Jan Erik Nielsen mentioned that as a result of the electronic voting procedure launched by him on June 12th, 2017 Harald Drück was elected as the SCF chairman for a period of two years.

Item 30: Priority topics for the 9th SCF call

Based on the proposals for priorities for the 9th SCF call listed in the agenda, a discussion and also a presentation of a proposed activity related to SHAMCI certification by Ashraf Kraidy took place.

After a discussion the following decision was made:

Decision M23.D9 – Priority topics for the 9th SCF call

The following topic will be included together with the indicative SK financed budget in the 9th SCF call:

- **Title: Elaboration of Proposal for revision of Annex J of the SKN scheme rules**
Indicative SCF budget: € tbd,-
Remark: Activity is related to PVT collectors
- **Title: Follow-up feasibility ‘Broadening the scope’**
Indicative SCF budget: € 10 000,-
Remarks: Revision of scheme rules Custom built systems, requirements for companies issuing declaration, outline (draft) certification scheme for calculation tool.
- **Title: Feasibility DST testing with SolTherm model**
Indicative SCF budget: € 12 000,-
Remarks: Selection of relevant parameter set, adoption of SolTherm for DST datasets, link to parameter identification software, validation with existing datasets.
- **Title: Support to liaison CEN/TC312 officers**
Indicative SCF budget: € 3 000,- to 5 000,- per liaison
Remark: Monitoring developments at CEN TC’s, inform those TC’s about developments in TC312 and report back to TC312
- **Title: Establishment of software management group**
Indicative SCF budget: € 7 000,-
Remarks: Define the tasks, working procedures and recruiting of members. Start with the management for ScenoCalc and SolTherm and be prepared to add future software tools linked to Solar Keymark. Revise when appropriate.
- **Title: Desk study: state of the art methods for quality and durability**
Indicative SCF budget: € 4 000,-
Remarks: Aim at recent developments that can bring quality and durability issues such as expected product life time, drinking water quality, construction issues, emission issues, energy costs issues and life cycle assessment issues to the level of a Solar Keymark certification scheme.
- **Title: Online tool package label**
- **Title: Finalizing and implementing the Solar Keymark On-line Database**
Remarks: Make decision on final layout for the on-line database – and implement
- **Title: Harmonization of the testing, inspection and certification procedures of SHAMCI and Solar Keymark**
Remarks: See links to related documents N0353 & N0354
- **Title: Support of Conveners and secretariat of TC 312**
Indicative SCF Budget: 10.000 € each
- **Title: Activities related to the implementation of the SK marketing plan**

Note: In case the total available SCF budget is not sufficient for all activities mentioned above the priorities will be modified by the SCF-SG.

The 9th SCF call will be launched on Nov. 17th, 2017

Latest date for handing in proposals is: Dec. 20th, 2017 (17:00 hrs Brussels time)

Information on vote: 21 (81 %) positive votes, 0 (0 %) negative votes, 5 (19 %) abstentions of in total 26 votes

Note: The meeting of the SCF-SG (Solar Certification Fund Steering Group) will take place on January 30th, 2018 (preferably as a web meeting). The final recommendation of the SCF-SG for the projects to be funded will be submitted to the SKN for a final decision by February 13th, 2017

Item 31: Report by CB WG on web inspection - report from pilot project

To reduce the costs and the CO₂ emissions of factory inspections there was the idea to perform a factory inspection via web. At the last (21st SKN) meeting Andreas Bohren and Ulrich Fritzsche informed that they had recently received the conformation from DIN Certco to start a pilot project on this topic.

The web inspection was not done up to now but will be performed this autumn and reported at the next SKN meeting.

Item 32: Report or update on “Inter-laboratory Comparison - ILC on Data Analysis”, SCF7 Project

No news related to this topic because no work was performed up to now. Report expected next SKN meeting.

Item 33: Presentation of Project SCF7-FlowScheme – how to give code for the hydraulic type and layout of a collector

Andreas Bohren presented by means the content of the document SKN_N0333R0 a proposal for a code of hydraulic flow schemes of solar thermal collectors also named hydraulic designation code (HDC).

The activity was in general appreciated and there was a positive feedback about the idea to include the hydraulic designation code (HDC) in the future as an annex to the SK data sheets.

To provide a basis for this a corresponding resolution shall be presented as the next SKN meeting for vote.

Furthermore the participants of the SKN were encouraged to work with the hydraulic designation code (HDC) and in case of questions or missing hydraulic schemes to contact Andreas Bohren.

Item 34: Update on “Thermosiphon Task Force”

Pedro Dias reported about the activities of the “Thermosiphon Task Force” that is also supported by a corresponding SCF7 project by means of presentation attached as document SKN_N0371R0.

Item 35: Information on CEN Keymark Management

The Keymark administrative management was outsourced from CEN to DIN CERTCO. Katharina Vehring (born Meyer) mentioned the following

- The Keymark for thermal insulation products is broadening
- The development of the Keymark for radiator valves is stable
- For the newly introduced heat pump Keymark there are already approx. 200 certificates existing.
- The Solar Keymark is with approx. 1.500 certificates the most successful one
- DIN CERTCO started the creation of a new Keymark website and a new Keymark database
- No significant further activities were performed concerning the change of the logo

Item 36: Update on complaints

By means of document SKN_N0344R0 Sören Scholz reported about the recommendations of the “SKN Complaint Committee“ to the SKN .

42 documents such as emails, letters and reports were assessed by the SKN Complaint Committee. A third party auditor examined the test procedure and its results including calculation procedures without any deviation. The retest of the same product was performed without any significant different results. However, before the retest some minor corrective actions were performed.

The SKN Complaint Committee has not found any evidence that the certification body was breaking any Keymark scheme rules.

The major problem for the “SKN Complaint Committee“ was that test reports were not available due to confidentiality reasons. Hence Sören Scholz mentioned that a requirement to make the test reports and other internal documents in the case of a complaint available to the SKN Complaint Committee should be included in the SK scheme rules.

The work was done by the participants of the SKN Complaint Committee for free. For the future a solution should be found for this.

The final report prepared by the “SKN Complaint Committee was send to the two parties that were involved in complaint case. The two parties were the certifier and the company that appealed after the closing of the first round of this complaint case.

According to Andreas Bohren the main problem is that due to confidentiality reasons based on the requirements of the accreditation of the lab and the certifier by far not all documents required for an assessment of the case are available for the “SKN Complaint Committee”

Furthermore he also mentioned the fact that there was no financing of the activities of the involved persons and institutions available. It is important that in the future a mechanism for financing the activities of the SKN Complaint Committee is established.

In the context of this topic Andreas Bohren also presented a proposal for a “nothing-to-hide initiative” (see document SKN_N0336R0)

Referring to document SKN_N0344R0 Stephan Fischer pointed out that everything written in paragraph a) related to the quasi-dynamic testing method is also true for the steady state testing method. E.g. the correlation between parameters determined according the steady state testing method is even higher than the correlation between parameters determined using the quasi-dynamic test method.

The discussion was concluded with an agreement that Sören Scholz and Andreas Bohren will together prepare a proposal for a modification of the SK scheme rules in such a way that in case of a complaint the test reports and other relevant documents shall be made available to the SKN Complaint Committee. It is clear that these documents have to be treated confidentially by the SKN Complaint Committee.

The proposal mentioned above will provide the basis for a resolution to be made at the next SKN meeting.

Item 37: Update on action plan working groups

As no documents or action plans respectively were available prior to the meeting and as the most important aspects were also discussed in the context of other items this item was not further discussed.

Item 38: Solar Certification Fund Projects – General status report

Pedro Dias informed about the projects supported by the Solar Certification Fund (SCF) in the different calls and financial data of the SCF is by means of a presentation available as document SKN_N0370R0.

For SCF projects see also: <http://www.estif.org/solarkeymarknew/projects/scf>

Harald Drück thanked the industry for having supported standardisation and certification activities via the SCF by already more than 1 Mio €. Furthermore he thanked Pedro Dias for the huge amount of work he and his colleagues at SHE/ESTIF are performing in a highly professional way.

Item 39: Update on global solar certification

Jan Erik Nielsen presented the current status and the activities of the Global Solar Certification Network (GSCN) by means of the corresponding website: www.gscn.solar

Furthermore he mentioned that the next combined GSCN and IEA SHC Task 57 meeting will take place on October 29th, 2017 at Abu Dhabi (United Arab Emirates).

Harald Drück encouraged in his role as GSCN chairman the persons present to become a member of the GSCN in order to promote and support the global harmonisation of testing and certification procedures.

Item 40: Update on detailed SK data base

Jan Erik Nielsen mentioned that the activity is related to an SCF project but unfortunately activities are behind schedule. Right now the project activities are being coordinated with the SCF-ErP projects. Progress will be presented at next SKN meeting.

Item 41: Updates from Liaison officers

Liaison officer to IEC/TC117, (related to SCF projects 7C093 and 8C09.1): Stephan Fischer

Liaison officer to TC128, (related to SCF 3C07a): Korbinian Kramer

Liaison officer to CEN TC164, (related to project SCF 7C09.2): Jean Marc Suter

Liaison officer to CEN TC228 and CEN TC 317, (related to project SCF 7C09.1 and 8C09.3): Gerard van Amerongen

Liaison officer to IEC/TC117:

Stephan Fischer informed about IEC/TC117 and his activities as liaison officer related to this TC by means of the presentation available as documents SKN_N0366R0.

The most relevant achievement up to now is that in the standard IEC 62862-3-2 ED1 (Solar thermal electric plants - Part 3-2: Systems and components - General requirements and test methods for large-size parabolic-trough collectors) the thermal performance testing of collectors has to be performed acc. to ISO 9806:2017

Liaison officer to CEN TC128:

Korbinian Kramer informed about the activities of CEN TC128 and mentioned that nothing new happened since his last presentation. Further details can be found in his presentation available as document SKN_N0367R0.

Liaison officer to CEN TC164:

Jean-Marc Suter informed about the activities of CEN TC164 by means of the presentation attached as SKN_N0340R0.

Item 42: Important updates / other important information

Due to limited available time the only topic addressed under this item was the weekly information about changes and missing data sheets in the Solar Keymark database by the “Argus” software developed and operated by Andreas Bohren and his team.

Harald Drück and Jan Erik Nielsen thanked Andreas Bohren for his work and underlined the importance of the Argus Software as well as its positive influence on the reduction of the number of missing SK data sheets.

Available as document SKN_N0369R0 is a presentation from Vassiliki Drosou on the SCF project on the revision of ISO 9488 which was not presented at the meeting due to time restraints.

Available as document SKN_N0374R0 is a short presentation from Pedro Dias on “Update on solar heating and cooling market” which was not presented at the meeting due to time restraints.

Available as document SKN_N0375R0 is a presentation from Pedro Dias on the “Clean Energy Package” which was not presented at the meeting due to time restraints.

Item 43: Any other business

No any other business

Copy of Item 8: Date and place of next meetings – since next meetings are usually stated at the end of the minutes

The **24th SKN meeting** (spring 2018 meeting) will be a physical meeting and is scheduled for

March 6th, 13:00 hrs to March 7th, 14:00 hrs, 20 18 (end of day one at 19:00 hrs) and will take place in Madrid based on an invitation of Maria del Val Varas Garcia from AENOR.

The **25th SKN meeting** (autumn 2018 meeting) will be a web meeting and is scheduled for **October 23rd, 9:00 hrs to 12:00 hrs and October 24th, 9:00 hrs to 12:00 hrs, 2018**

The **26th SKN meeting** (spring 2019 meeting) will be a physical meeting and is scheduled for **March 5th, 13:00 hrs to March 6th, 14:00 hrs, 2019** (end of day one at 19:00 hrs) and will take place in Gothenburg based on an invitation of Magnus Sturesson from RISE (former SP).

Item 39: End of meeting

Harald Drück thanked the participants for attending the meeting and for their constructive discussions. He also thanked Jan Erik Nielsen for the excellent preparation of the meeting and the work he is doing as Solar Keymark Network Manager in a highly professional way. Furthermore he thanked George Nikolaides and Panayiotis Kynighos from TÜV NORD CYPRUS for hosting the meeting at such a nice location.

The meeting ended at 14:00 hrs.

The minutes were prepared by Harald Drück (honorary and deputy chairman of the Solar Keymark Network) in assistance with Jan Erik Nielsen (SKN manager).

Larnaca, October 19th, 2017

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Jan Erik Nielsen

SolarKey Int.

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Annex A: List of participants

23th Meeting, Larnaca, October 17th – 18th, 2017

| Participants present at the meeting | | | |
|--|------------------|--|-----------------|
| First name | Last Name | Company/organisation | Country |
| Nadia | Akbibouche | CDER | Algeria |
| Ioannis | Alexiou | DQS Hellas | Greece |
| Thomas | Althaus | Ritter Energie- und Umwelttechnik | Germany |
| Stamatilos | Babalis | NCSR "DEMOKRITOS" | Greece |
| Karim | Bakari | IMANOR | Morocco |
| Jan | Barancik | TSÚ Piest'any | Slovakia |
| Laura | Blomenkemper | PTB (Physikalische Technische Bundesanstalt) | Germany |
| Sophie | Bocquillon | EUROVENT CERTITA CERTIFICATION | France |
| Andreas | Bohren | SPF | Switzerland |
| Abdelkrim | Chenak | CDER | Algeria |
| Franck | Cheutin | CSTB | France |
| Andreas | Constantinou | AELab Cyprus | Cyprus |
| Pedro | Dias | ESTIF | EU |
| Harald | Drück | ITW/TZS University of Stuttgart | Germany |
| Jorge | Facão | LNEG | Portugal |
| Stephan | Fischer | ITW/TZS University of Stuttgart | Germany |
| Ulrich | Fritzsche | TÜV Rheinland Energie und Umwelt GmbH | Germany |
| Korbinian | Kramer | Fraunhofer Institute for Solar Energy Systems | Germany |
| Paris | Kyriacou | AELab Cyprus | Cyprus |
| Emmanuel | LEGER | BELENOS | France |
| Tasos | Mylonas | AELab Cyprus | Cyprus |
| Jan Erik | Nielsen | Solarkey Int. | Denmark |
| George | Nikolaides | TUV CYPRUS LTD (host) | Cyprus |
| Harald | Poscharnig | GREENoneTEC Solarindustrie GmbH | Austria |
| George | Roditis | AELab Cyprus | Cyprus |
| Sören | Scholz | DIN CERTCO GmbH | Germany |
| Vinod Kumar | Sharma | ENEA | Italy |
| Abrougui | Souad | Agence Nationale pour la Maitrise de l'Energie | Tunisia |
| Magnus | Sturesson | RISE Sweden, Certification (SP Certification) | Sweden |
| Marios | Theristis | University of Cyprus Cyprus | Cyprus |
| Costas | Travasaros | Prime Laser Technology | Greece |
| Gerard | van Amerongen | vAConsult | The Netherlands |
| Hendrik Martijn | van Elburg | VHK | Netherlands |
| Katharina | Vering | DIN CERTCO | Germany |

| Participants attending by web | | | |
|--------------------------------------|----------------------|---|----------------|
| Jean-Marc | Suter | Suter Consulting | Switzerland |
| João | Santos | CERTIF - Associação para a Certificação | Portugal |
| Hanspeter | Weiss | Ernst Schweizer AG, Metallbau | Switzerland |
| Patrik | Ollas | RISE Research Institutes of Sweden | Sweden |
| Maria | del Val Varas Garcia | AENOR | Spain |
| Jean-Baptiste | Beyssac | CESP-University of Perpignan | France |
| Daniele | Bernacchioni | ICIM | Italy |
| Markus | Barek | Sunlumo Technology GmbH | Austria |
| Fabienne | Sallaberry | CENER | Spain |
| William | Zheng | Intertek | China |
| Paolo | Ricci | Instituto Giordano | Italy |
| Jana | Levicka | TSU | Slovakia |
| Henry | Rosik | ITC (first day only) | Czech Republic |