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## List of Decisions

### After 23<sup>rd</sup> Solar Keymark Network meeting in Freiburg

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#### Preface:

This document contains all the decisions made by the Solar Keymark Network up to the date mentioned above.

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## MEETING 1

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### ***Decision D1.M1 – related to test results based on old / new (revised) standards***

The experts present are confident that test results (thermal performance and durability) to be obtained on the basis of the new version of EN 12975 and EN 12976 will not differ from results that would have been obtained on the basis of the old version, as the methodology and the test equipment are the same.

*This decision was taken unanimously (at the 1<sup>st</sup> Meeting, June 21<sup>st</sup>, 2006)*

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### ***Decision D2.M1 – related to new accreditation certificates***

It was decided that in case a test lab gets a new accreditation certificate, this certificate should be electronically send to [jen@solarkey.org](mailto:jen@solarkey.org)

*This decision was taken unanimously (at the 1<sup>st</sup> Meeting, June 21<sup>st</sup>, 2006)*

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### ***Decision D3.M1 – related to collector power curve / collector efficiency curve***

In the revised version of the test standard for collectors (EN 12975) the collector performance is presented by means of a collector power curve.

In this context it was decided by the experts present to recommend that for collector performance tests that are carried out according to the revised version of the collector test standard EN 12975 the collector efficiency curve shall not be included in the test report (not even in an Annex).

*This decision was taken unanimously (at the 1<sup>st</sup> Meeting, June 21<sup>st</sup>, 2006)*

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## MEETING 2

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***Decision D1.M2 – related to simplification of the rules for testing collectors of same type but different sizes***

The experts present decided that the current procedure should not be changed. This means that the smallest and the largest collector out of a series with the same type should be tested.

*This decision was taken with one negative vote (at the 2<sup>nd</sup> Meeting, February 15<sup>th</sup>, 2007)*

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***Decision D2.M2 – related to the question who is manufacturer and where is the location for picking of test samples***

The experts present decided that it is not possible to give a precise answer on this question.

Furthermore it was decided that Josef Buchinger should send the case under question out to the Solar Keymark Network and ask for the individual opinions of the experts.

*(Decided at the 2<sup>nd</sup> Meeting, February 15<sup>th</sup>, 2007)*

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## MEETING 3

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### ***Decision D1.M3 – related to “Procedures for changing the certification body ”***

The experts present agreed on the following:

- ~~–It shall be possible for a licensee to obtain a new license from another certification body without re-testing and re-inspection~~
- ~~–Old license shall be withdrawn when new one is issued~~
- ~~–Change of license should be done within 3 months after the request~~
- ~~–The test report(s) and the inspection report(s) have to be provided to the “new” certifier~~
- ~~–The test institute that issued the test reports has to be accepted by the “new” certifier~~

~~*This decision was taken unanimously (at the 3<sup>rd</sup> Meeting, October 2<sup>nd</sup>, 2007).*~~

~~→Scheme rules 11.~~

Replaced by resolution M17.6

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### ***Decision D2.M3 – related to “ Flexible Solar Keymark certification ”***

The experts present decided that in principle both approaches (“extrapolation/interpolation method” and “calculation method” – see above) should be included in a revised version of the Solar Keymark scheme rules.

*This decision was taken unanimously (at the 3<sup>rd</sup> Meeting, October 2<sup>nd</sup>, 2007).*

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### ***Decision D3.M3 – related to “made in”***

The experts present decided that the information related to “made in” can refer to whatever is considered as appropriate by the one who is putting on the label.

Furthermore it was decided that the information to “made in” on the product identification plate should be made optional during the next revision of the standard.

*This decision was taken unanimously (at the 3<sup>rd</sup> Meeting, October 2<sup>nd</sup>, 2007).*

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### ***Decision D4.M3 – related to “ Performing of Solar Keymark tests by manufacturers ”***

The experts present decided that this is not possible due to the existing Solar Keymark scheme rules.

Remark: It would only be possible if the test facility of the manufacturer is accredited. Furthermore the test sample has to be picked from the current production by an independent inspector.

*This decision was taken unanimously (at the 3<sup>rd</sup> Meeting, October 2<sup>nd</sup>, 2007).*

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**Decision D5.M3 – related to “ Solar Keymark certification of ICS Systems ”**

Taking the aspects mentioned above into account the experts present decided that a Solar Keymark certification of ICS systems is possible.

*This decision was taken unanimously (at the 3<sup>rd</sup> Meeting, October 2<sup>nd</sup>, 2007).*

→Scheme rules 13.

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**Decision D6.M3 – related to “ Mechanical load tests of tubular collectors ”**

The experts present decided that the “negative pressure test of the collector” according to 5.9.2 EN 12975-2:2006 does not have to be performed on tubular collectors 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. This is not relevant for tubular collectors.

Concerning the mechanical load tests of tubular collectors with and without external reflectors it was decided that action must be taken during the next revision of EN 12975.

It was decided 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 standard.

In order to exchange the experience related to performing the positive pressure tests it was agreed that the labs performing such tests should describe their procedure and mail it to the Solar Keymark Network until November 9<sup>th</sup>, 2007.

*This decision was taken unanimously (at the 3<sup>rd</sup> Meeting, October 2<sup>nd</sup>, 2007).*

→Scheme rules 13.

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## **MEETING 4**

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**Note:** At the 4<sup>th</sup> Meeting, June 10<sup>th</sup>, 2008 no decisions were made.

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## MEETING 5

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### ***Decision D1.M5 – Validity of Solar Keymark certificates in case of absorbers selective coated by different manufacturers are used***

The experts present decided to apply the following procedure in order to consider different coatings as equivalent:

Different coatings are considered as equivalent provided that

- ~~– the absorptance and emittance of the different coatings under question was measured by the same recognised lab and~~
- ~~– the durability and reliability tests according to EN 12975-2 (being relevant with regard to the absorber) of the same collector with an absorber with different coatings performed by an accredited test lab are successfully passed and~~
- ~~– the power curves determined by an accredited test lab for the same collector with an absorber with different coatings do not differ by more than 2% at a reduced temperature difference of 0 K and not more than 2% at a reduced temperature difference of 50 K and~~
- ~~– the equality is accepted by the Solar Keymark Network~~

~~Coatings on copper absorbers with the following brand names are already considered as equivalent:~~

~~Tinox classic, Blutec etaplus CU, Sunselect~~

~~This decision was taken unanimously (at the 5<sup>th</sup> Meeting, October 1<sup>st</sup> & 2<sup>nd</sup>, 2008).~~

~~→Scheme rules 4.6.1~~

Replaced by D3.M10

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### ***Decision D2.M5 – Difference between nominal and effective store volume***

The experts present decided that the difference between the nominal store volume stated on the system identification label shall not differ by more than 10 % from the effective store volume determined from the measured thermal capacity. The calculation of the percentage of the difference between the two volumes is based on the value of the effective volume.

The effective store volume shall be mentioned in the test report.

~~This decision was taken unanimously (at the 5<sup>th</sup> Meeting, October 1<sup>st</sup> & 2<sup>nd</sup>, 2008).~~

~~→Scheme rules 13.~~

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### ***Decision D3.M5 – Issuing of OEM certificates***

~~The present experts decided that OEM certificates shall be issued by the certifier who issued the original certificate. This decision was taken with three negative and 12 positive votes (at the 5<sup>th</sup> Meeting, October 1<sup>st</sup> & 2<sup>nd</sup>, 2008).~~ →Scheme rules 13.

~~Replaced by Resolution M17.R6~~

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## MEETING 6

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### ***Decision D1.M6 – Voting on “Solar Keymark Network Internal Regulations; Version March 23<sup>rd</sup>, 2009”***

The participants present decided to send out the modified version of the “Solar Keymark Network Internal Regulations” as discussed at the meeting for voting. For that purpose a “voting form” will be send out together with the document by the SKN secretariat.

In case the document is not approved as send out this has to be declared to the Solar Keymark Network (including Secretariat) within 30 days after sending out the document.

Comments submitted in the context of the voting shall be presented and discussed at the next SKN meeting.

*This decision was taken unanimously (at the 6<sup>th</sup> Meeting, March 23<sup>rd</sup> & 24<sup>th</sup>, 2009).*

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### ***Decision D2.M6 – Durability and reliability testing of custom build collectors***

The participants present decided that durability and reliability tests shall be carried out on collectors representing the major features of the collector family. E.g. collector families with collectors having more than one glass covers that are separated by bars.

In case the largest size of the collector the test laboratory can test is smaller than the smallest size of the family representing the weakest point an other testing laboratory shall carry out the respective tests.

*This decision was taken unanimously (at the 6<sup>th</sup> Meeting, March 23<sup>rd</sup> & 24<sup>th</sup>, 2009).*

→Scheme rules 4.2

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### ***Decision D3.M6 – Handling of complains***

The participants present decided that the procedure for handling of complains is as described in the general Keymark scheme rules (Internal Regulations, Part 4, Certification, 2006-8) in section 5.4 (complains) and 5.5. (appeal procedures).

If a special test is performed according to the procedures mentioned above and if the result is not fulfilling the requirements mentioned in chapter 6.1 of the Solar Keymark scheme rules the manufacturer has to carry the costs of the special test.

If the specially tested product fulfils the requirements and complies with the registered values, the costs have to be carried by the party which questioned the fulfilment of the requirements or registered values and ordered the test through the certification body.

Chapter 6.1 of the Solar Keymark scheme rules will be revised accordingly by Jan Erik Nielsen.

*This decision was taken unanimously (at the 6<sup>th</sup> Meeting, March 23<sup>rd</sup> & 24<sup>th</sup>, 2009).*

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**Decision D4.M6 – Definition of “series production” and “stock”**

The participants present decided that a series production is existing when a least 10 collectors are produced with the same materials and the same manufacturing technologies in the same way and all major production processes are performed in presence of the inspector.

The participants present decided that at least 10 collectors of the same type more than the number of test samples picked must be available in the stock for picking the sample(s) to be tested.

*This decision was taken unanimously (at the 6<sup>th</sup> Meeting, March 23<sup>rd</sup> & 24<sup>th</sup>, 2009).*

→Scheme rules 14.

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**Decision D5.M6 – Validity of Solar Keymark certificates in case of absorbers selective coated by different manufacturers are used**

The participants present decided that in context with decision D1.M5 **coatings on aluminium absorbers** with the following brand names are already considered as equivalent:

Alanod Mirotherm and Blutec eta plus\_al

Note: This decision extends decision D1.M5 (Validity of Solar Keymark certificates in case of absorbers selective coated by different manufacturers are used was modified)

Additionally it was decided that in the future documentation for considering selective coatings and other materials as equivalent shall be provided in advance to the SKN.

*This decision was taken unanimously (at the 6<sup>th</sup> Meeting, March 23<sup>rd</sup> & 24<sup>th</sup>, 2009).*

→Scheme rules 4.6.1

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**MEETING 7**

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***Decision D1.M7 – Solar Keymark Network Internal Regulations; Version September 3<sup>rd</sup>, 2009***

The participants present agreed with the version of the “Solar Keymark Network Internal Regulations” as discussed at the meeting (Document N01002R3 (File SKN\_N0102R3.doc)).

*This decision was taken unanimously.*

With regard to the procedure of the future meetings it was agreed that there is a need of the establishment of a formal voting and nomination procedure.

Jan Erik Nielsen will prepare tools (based on Excel) for that purpose.

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***Decision D2.M7 – CEN fees***

The participants present decided to send the document N0104R0 related to “ CEN fees from Solar Keymark” to CEN and asks for acceptance until the end of 2009.

In case the proposal described in the document is not accepted or an appropriate other proposal is presented by CEN the initiation of a new certification scheme will be considered.

*This decision was taken with one abstention.*

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***Decision D3.M7 – Fees for the SKN and Secretariat in 2009 & 2010***

The participants present decided that the budget of the SKN (including chairman) for 2010 is in total 47.694 €.

Furthermore it was agreed that the budget for 2009 of 40.000 € for the SKN (including chairman) is increased by 4.800 €.

In 2010 the SKN fee is reduced to a value of 50 € per licence.

In case the income based on the SKN fees will not be as high as expected the resulting difference will be compensated in the year after.

*This decision was taken unanimously.*

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***Decision D4.M7 – Solar Keymark Database: Update procedure and brand***

The participants present decided the following:

As soon as a licence is issued the certification body shall send by e-mail the related data sheet in a harmonised Excel format and PDF format to the Solar Keymark Network Secretary (Email: [jen@solarkey.dk](mailto:jen@solarkey.dk))

Brands mentioned on the Solar Keymark certificate will be included in the database as part of the licensee name: LICENSEE NAME (BRAND)

A brand is the name of the product as given by the licensee. In principle it might be possible to have different brands for the same product (e.g. for different markets).

It was agreed that the update procedure will be included in the specific scheme rules.

*This decision was taken unanimously.*

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### **Decision D5.M7 – Solar Keymark Certification of PV/T collectors**

~~The participants present decided that Solar Keymark Certification of PV/T collectors as a solar thermal product is possible provided the measurements of the thermal performance are performed with and without electricity production. For the electrical load applied for the electricity production a MPP Tracker shall be used.~~

~~In the Solar Keymark data sheet the thermal performance with and without electricity production shall be presented (see note below).~~

~~**Note:** (Practical comment by the Secretary) In present version of the Solar Keymark collector data sheet there is no room for two values for the thermal performance parameters. Until further notice the two sets of values for a PV/T collector are given in the following way:~~

- ~~• Values for PV/T collector without electricity production: To be given in the normal way in the data sheet.~~
- ~~• Values for PV/T collector with electricity production: To be given with the following explanation in the comments field of the data sheet: The thermal performance of the collector is reduced if electricity is produced simultaneously. A test was performed with simultaneous electricity production; results from this test show the following performance parameters: n0a: d.ddd; a1a: d.ddd w/(m<sup>2</sup>k); a2a: d.ddd w/(m<sup>2</sup>k<sup>2</sup>); tstg: ddd °c.~~

~~*This decision was taken with one abstention.*~~

Replaced by D7.M10.

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### **Decision D6.M7 – Changing a collector in a Solar Keymark certified system**

The participants present decided that a collector in a Solar Keymark certified system can be changed under the following conditions:

The original test report of the tested system configuration remains the reference for all kinds of modifications, even if a modification was accepted without retest. The procedure for an advice of amendment follows the four topics:

1. The manufacturer informs the Certification Body about the planned change of collector type.
2. The manufacturer delivers the test reports and Solar Keymark data sheets of both collectors and the system to the Certification Body.
3. Both the Certification Body and the test lab which has issued the system test report have to approve the system modification.



4. A negative decision can also be based on technical consideration out of the following few requirements.

**Minimum requirements on the collector:**

- The alternative collector is Solar Keymark certified.
- The original collector must be performance tested according to EN 12975
- The test reports of both collectors and the system are available to the Certification Body
- The change of the collector does not cause a change of the system configuration e.g. piping, inlet connections, controller, pump etc.
- Both collectors have to be “technical identical”

**Definition of “technical identical” Collector” (Data based on test report)**

- Tolerance of gross area  $\pm 10 \%$
- IAM ( $50^\circ$ )  $\pm 3 \%$
- The pressure drop shall not differ by more than  $\pm 10 \%$  for the nominal flow rate as stated by the manufacture
- Total performance of the collector at  $1000 \text{ W/m}^2$ :
  - Integral from  $0$  to  $100^\circ\text{C}$ , tolerance of  $0$  to  $10 \%$  (new collector being better than original)
  - $W_{\text{peak}} \pm 10 \%$ , (Peak Power [ $G = 1000 \text{ W/m}^2$ ] per collector unit)

**No modifications allowed at:**

- Hydraulic flow type
- Maximal operating pressure
- Permitted heat transfer fluid

**Reporting**

The original test report of the tested system remains the reference for all kinds of modifications – cascading modifications are excluded. The original test report remains unchanged and valid. The use of alternative collectors is briefly reported as an addendum to the original test report.

*This decision was taken unanimously.*

→Scheme rules 4.6.3

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**Decision D7.M7 – Procedure for considering glass as equivalent for flat plate collectors**

The participants present decided that glazing can be considered as equivalent if the following requirements are fulfilled:

- The solar transmission (AM 1,5) does not differ by more than  $\pm 1\%$  from the one of the glass used for the initial Solar Keymark collector test, provided that material (including tempered/non tempered), texture, surface treatment and thickness of the glass did not change. The change in

transmission must be documented with a transmission measurement made by one of the Solar Keymark test labs or by labs accredited for transmission measurements.

and

- If the glass is toughened, no additional mechanical load test is required. For other materials, a collector must be sampled according to the rules of Solar Keymark. This collector has to pass the mechanical load test according to EN 12975-2 chapter 5.8 made by one of the Solar Keymark test labs.

and

- The impact resistance test according EN12975-2, chapter 5.9 has been passed successfully with at least the same result as in the initial test (only if the impact resistance test was performed during the initial test). The tests must be carried out by a Solar Keymark test lab.

*This decision was taken with one negative vote.*

→Scheme rules 4.6.2

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### ***Decision D8.M7 – Solar Keymark scheme rules, Version September 4<sup>th</sup>, 2009***

The participants present agreed in principle with the documents for the “Solar Keymark scheme rules” (Document SKN\_N0106.R1.doc) and the annexes C (Document SKN\_N0106.R1annexC) and annexes D (Document SKN\_N0106.R1annexD) as resulting from today’s discussion.

The detailed description of the extrapolation methods for the certification of system families will be finalised in the corresponding working groups before September 15<sup>th</sup>, 2009.

The final version of the scheme rules resulting from these activities will be submitted to CCB for approval and will be made available via internally via [www.solarkeymark.org](http://www.solarkeymark.org).

*This decision was taken unanimously.*

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### ***Decision D9.M7 – Validity of Solar Keymark certificates in case of Tinox energy CU coating***

The participants present decided that in context with decision D1.M5 coatings on copper absorbers with the following brand names are considered as equivalent:

Tinox energy CU, Tinox classic, Blutec etaplus CU, Sunselect

Note: This decision extends decision D1.M5 and decision D5.M6 (Validity of Solar Keymark certificates in case of absorbers selective coated by different manufacturers)

*This decision was taken unanimously.*

→Scheme rules 4.6.1

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### ***Decision D10.M7 – Mandatory identification of the manufacture***

The participants present decided that for collectors, as the name of the manufacturer, also the name of the supplier of the collector can be mentioned.

Furthermore, the discrepancy in the information required related to the manufacture's name in EN 12975 and EN 12976 should be removed during the ongoing revision of EN 12975.

*This decision was taken unanimously.*

→Scheme rules 17.

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### **Decision D11.M7 – Translation of Solar Keymark documents**

The participants present decided that certification bodies or test institutes can translate documents such as e.g. factory inspection reports or data sheets in other languages provided that always the original English text remain in the document.

This means that the preparation of a document using any language and English is possible.

In case of doubts, contradictions etc. the English text is the relevant one.

*This decision was taken unanimously.*

→Scheme rules 17.

Note: (Practical comment by the Secretary) In present version of the Solar Keymark collector data sheet there is no room for two values for the thermal performance parameters. Until further notice the two sets of values for a PV/T collector are given in the following way:

- Values for PV/T collector **without** electricity production: To be given in the normal way in the data sheet.
  - Values for PV/T collector **with** electricity production: To be given with the following explanation in the comments field of the data sheet in the following way: *The thermal performance of the collector is reduced if electricity is produced simultaneously. A test was performed with simultaneous electricity production; results from this test show the following performance parameters: n0a: d.ddd; a1a: d.ddd w/(m<sup>2</sup>k); a2a: d.ddd w/(m<sup>2</sup>k<sup>2</sup>); tstg: ddd °c.*
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## MEETING 8

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### ***Decision D1.M8 – Nomination of industry representatives by national solar thermal trade associations***

In countries where more than one national solar thermal trade association exists each trade association can nominate up to two national industrial representatives for participation in the Solar Keymark Network.

*This decision was taken unanimously.*

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### ***Decision D2.M8 – Revised version Solar Keymark Scheme Rules, Annex D***

The participants present decided to accept the document N106R6AnnexDR3.

*This decision was taken unanimously.*

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### ***Decision D3.M8 – Extension of Solar Keymark Certification to New Subtypes of Solar Collectors***

The definition of the biggest collector and the smallest collector is done at the initial test. If later a bigger size or smaller size is added to the collector family this is resulting in a new definition for the existing family. If there is a new biggest collector added this will require performance testing and reliability testing of this collector. If there is a new smallest collector added this will require performance testing on the smallest collector.

*This decision was taken unanimously.*

→Scheme rules 4.2 (foot note)

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### ***Decision D4.M8 – Certification of systems by using collector Solar Keymark certificates from a different certification body***

The participants present decided that in general a certifier has to perform Solar Keymark system certification based on collector Solar Keymark certificates issued by other certification body.

In order to ensure that no system certificates are based on withdrawn collector certificates, Jan Erik Nielsen will elaborate an appropriate procedure.

*This decision was taken with one negative vote.*

→Scheme rules 12.

#### **Note:**

According to the existing rules the manufacturer is 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.

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### **Decision D5.M8 – Hot water tapping times**

It was decided that the following tapping times should be used for the performance prediction:

Table 1: Data of reference locations and adjusted tapping time.

Reference locations	Longitude <sup>1</sup>	Time zone	Adjustment of standard time	Tapping time (CET <sup>2</sup> )
Stockholm	18.07°	1	-0.20	<b>17.80</b>
Würzburg	9.90°	1	0.34	<b>18.34</b>
Davos	9.82°	1	0.35	<b>18.35</b>
Athens	23.70°	2	0.42	<b>18.42</b>

(table extracted from N0124R0)

**Note:** Time given in Table 1 are decimal figures

Furthermore it was agreed that there is no need to re-calculate the results presented in already existing test reports.

The explicit tapping times should be included in a future version of EN 12976-2 and CEN/TS 12977-2.

*This decision was taken unanimously.*

→Scheme rules 13.

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### **Decision D6.M8 – Validity of Solar Keymark certificates in case of Alanod MIROTHERM and TiNOX energy Al coating**

The participants present decided that in context with decision D1.M5, coatings on aluminium absorbers with the following brand names are considered as equivalent:

Alanod MIROTHERM and TiNOX energy Al and Bluetec eta plus\_al

Note: This decision extends decision D1.M5: decision D5.M6 (Validity of Solar Keymark certificates in case of absorbers selective coated by different manufacturers check) and decision D9.M7 (Validity of Solar Keymark certificates in case of Tinox energy CU coating)

*This decision was taken unanimously.*

→Scheme rules 4.6.1

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### **Decision D7.M8 – Display of Solar Keymark licence number on collector**

The participants present decided that for new Solar Keymark certificates issued from 01. May 2010 onwards it is only allowed to display the Solar Keymark logo on the collector together with the Solar Keymark licence number.

For Solar Keymark certificates issued before 01. May 2010 it is required to display the Solar

Keymark licence number together with the Solar Keymark logo (in case the logo is displayed) from 01.May 2011 onwards on the collectors.

*This decision was taken with one negative vote.*

→Scheme rules 15.

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**Decision D8.M8 – No Solar Keymark for uncovered collectors**

Uncovered solar collectors shall not be excluded from Solar Keymark certification.

*This decision was taken with one negative vote.*

The request for excluding uncovered solar collectors from Solar Keymark certification is mainly based on the fact that in some countries Solar Keymarked products (including uncovered absorbers operated in combination with a heat pump) can benefit from subsidies.

There was a consensus that subsidy schemes should also take into account the electrical energy consumption of a solar thermal systems.

A working group was established in order to elaborate mechanisms for avoiding the misuse of Solar Keymark certification for non solar products.

Members of the **working** group are:

Costas Travasaros, Jean Marc Suter, Rob Meesters, Carsten Lampe, Christian Stadler, Fabienne Salaberry

Note: It was not possible to identify a leader of the working group

The working group shall prepare a proposal as a basis for a decision at the next meeting.

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**Decision D9.M8 – Procedure for physical inspection / surveillance**

The participants present decided to proceed with the physical inspection and surveillance test as it is already present common practice. This means a physical inspection as described in the Solar Keymark scheme rules every second year.

The latest version of documents N0122R0 (Checks and controls for solar collectors) and N0123R0 (Checks and controls made of the solar heating system) shall be used for the inspection reports.

*This decision was taken with one negative vote.*

→Scheme rules 16.

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**Decision D10.M8 – Factory inspection report**

The participants present decided that the document N0132R0 (factory inspection report) shall be used for reporting.

*This decision was taken with one negative vote.*

→Scheme rules 16.

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**Decision D11.M8 – Harmonised requirements for documentation provided by collector manufacturer for factory inspection**

The participants present decided that the documentation required in Annex A of N0120R0 (extended by information related to method for connecting the absorber plate and the piping e.g. laser welding, soldering) has to be provided by the solar collector manufacturer in the context of a factory inspection.

This document will be included as Annex A3 in a revised version of the Solar Keymark scheme rules.

*This decision was taken unanimously.*

Note: The requirements resulting from Annex B of N0120R0 (Collector label) are already required by EN 12975-1:2006, section 7.2 (labelling)

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**Decision D12.M8 – Annual inspection requirements in case of ISO 9001 certification**

In case the manufacturer is ISO 9001 certified by a certifier accredited by a national accreditation body being a member of IAF (International Accreditation Forum) ([www.iaf.nu](http://www.iaf.nu)) a Solar Keymark factory inspection is only required every second year provided the ISO 9001 report is made available to the certifier.

Based on conclusions of previous audits, interim inspections can be requested by the certifier.

*This decision was taken with two negative votes.*

→Scheme rules 16.

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**Decision D13.M8 – Remote Random Sampling procedure.**

The participants present decided that a remote sampling procedure as described in N0126R1 and N0127R0 can be performed for picking samples for Solar Keymark type testing.

*This decision was taken unanimously.*

→Scheme rules 4.1.1

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## MEETING 9

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### ***Decision D1.M9 – Update of Solar Keymark internal regulations and Solar Keymark scheme rules***

The Solar Keymark internal regulations and Solar Keymark scheme rules should be updated once every year taking into account the decisions made in the meantime.

Since the decisions are already agreed on by the Solar Keymark Network no voting on the Solar Keymark internal regulations and Solar Keymark scheme rules is required.

*This decision was taken unanimously.*

→Scheme rules 18.

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### ***Decision D2.M9 – Interchangeable sub-components of collectors***

Lists of interchangeable sub-components of collectors will be prepared by Jan Erik Nielsen according to the format given SKN\_N0137R0 (with reference to the corresponding decision number). This list will be published in the public area of [www.solarkeymark.org](http://www.solarkeymark.org).

*This decision was taken unanimously.*

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### ***Decision D3.M9 – Labelling of systems***

The participants present decided that the requirement stated in EN 12976-1:2006, clause 4.7 “Every system shall have the following information durably marked on a plate or label to be visible at installation” can be considered as fulfilled if

- the label is included in the documentation supplied with the system

and

- in the documentation it is stated that the label (or corresponding page of the documentation with the label) has to be placed at the systems or the site where the system is installed

and

- an appropriate way for providing a durable fixing and display of the label is provided

The requirement mentioned above is relevant for the system label required according to EN 12976-1:2006, clause 4.7 and for the Solar Keymark system label

*This decision was taken unanimously.*

→Scheme rules 15.

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**Decision D4.M9 – Procedure for updating the data base**

The certification bodies shall inform the Solar Keymark secretariat every two weeks about the Solar Keymark certificates issued and withdrawn for updating the Solar Keymark database every two weeks.

This decision is partly updating Decision D4.M7

This decision shall be included in the Solar Keymark specific scheme rules.

*This decision was taken unanimously.*

→Scheme rules 18.

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**Decision D5.M9 – Revised version Solar Keymark Scheme Rules, Annex D**

The participants present decided to accept the document N0106R6AnnexDR5.

*This decision was taken unanimously.*

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**Decision D6.M9 – Fees for the SKN operation in 2010 & 2011**

The participants present decided that the budget of the SKN secretariat (including chairman) for 2010 is in total 56.721 €.

Note: With regard to the budget of the SKN secretariat (including chairman) for 2010 this decision replaces decision D3.M7.

The budget of the SKN secretariat (including chairman) for 2011 is in total 63.620 €.

Furthermore the activities of ESTIF described in document SKN\_N0135R1 for an amount of 20.360 € are accepted.

*This decision was taken unanimously.*

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**Decision D7.M9 – Solar Certification Fund (SCF)**

The participants present decided to accept the document SKN\_N0145R1 as basis for operation of the Solar Certification Fund.

Representatives for the SCF Steering Group shall be nominated by the specific groups of manufacturers, test labs, certification bodies and ESTIF and CCB until Oct 20<sup>st</sup>, 2010. The nomination shall be performed by means of an Email to the Solar Keymark secretary Jan Erik Nielsen.

The first meeting of the Solar Certification Fund Steering Group will take place on October 25, 2010 at 13:00 hrs at Stuttgart.

*This decision was taken unanimously.*

*Note (Jan Erik Nielsen): The nomination took place in the coffee break just after the decision was taken, the result was:*

*Manufacturers:*

- *Ralf Köbbemann-Rangers, BDH/Bosch*

- *Rob Meesters, Solahart*
- *Wolfgang Eisenmann, BSW/Wagner*

*Test labs:*

- *Enric Mateu Serrats, CENER*
- *Andreas Bohren, SPF*

*Certification bodies:*

- *João Santos, CERTIF*
- *Sören Scholz, DIN CERTCO*

*CCB:*

- *Hoang Liauw*

*ESTIF*

- *Teun Bokhoven, Chairman of ESTIF S&C WG*
- *Pedro Dias, ESTIF Secretariat*

*Solar Keymark Network*

- *Harald Drück, Chairman*
- *Jan Erik Nielsen, Secretary*

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## MEETING 10

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### ***Decision D1.M10 – Update of Solar Keymark scheme rules***

The Solar Keymark scheme rules as described in document SKN\_N0106R7 are accepted with future editorial changes to be made by Jan Erik Nielsen.

It was agreed to submit the updated version to CEN Certification Board CCB for approval by correspondence.

*This decision was taken unanimously.*

A revised version of the decision list will be prepared by Jan Erik Nielsen in such a way that the “history” of the decisions is traceable. One option is to keep the heading of the decision and to mention below in which document the decision was when incorporated.

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### ***Decision D2.M10 – Funding of proposals from the 1<sup>st</sup> SCF call***

The proposals recommend by the Solar Certification Fund Steering Group for funding as described in document SKN\_N0155R1 are accepted and the corresponding activities will be funded.

*This decision was taken unanimously.*

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### ***Decision D3.M10 – Procedure for considering selective absorber coatings as equivalent***

The experts present decided to apply the following procedure in order to consider different coatings as equivalent:

Different coatings are considered as equivalent provided that

1. They are applied on the same substrate (e.g. copper, aluminium)  
and
2. The specific test procedure described below has been passed successfully  
and
3. The equality is accepted by the Solar Keymark Network

#### **Procedure**

If a coating is to be considered equivalent to other coatings then the following tests shall be passed and requirements shall be fulfilled:

1. Two identical collectors (apart from the absorber coating) are compared to verify the equality of the two coatings. The absorbers of the two collectors must be made of the same material and must have the same thickness. One of the collectors is coated with one of the reference coatings. The other collector is coated with the new coating.

2. The durability and reliability tests according to EN 12975-2 (being relevant with regard to the absorber, thus 5.3 High Temperature Resistance, 5.4 Exposure and 5.6 Internal Shock) for the collector with the new coating performed by an EN12975 accredited test lab are successfully passed.
3. The power curves determined by an accredited test lab for the two collectors with different coatings shall not differ by more than 2% at a temperature difference of 0 K and not more than 2% at a temperature difference of 50 K

The absorptance and emittance of the different coatings under question shall have - according to the specifications of the manufacturer - equivalent optical properties ( $\alpha_1 = \alpha_2 \pm 1\%$  point at most,  $\epsilon_1 = \epsilon_2 \pm 1\%$  point at most) and the same range of the production variability, e.g.  $0.95 \pm 2\%$ .

4. For selective absorber coatings on metal a IEA SHC Task X test shall be performed successfully
5. The interchangeability is accepted by the Solar Keymark Network

The equivalency of the absorber coating can be challenged anytime. In this case the absorber has to be sampled by an accredited third party or by the test lab. The costs for the whole procedure are fully carried by the challenger. Upon presentation of tests that suggest none-equivalency of an absorber coating, the SKN is obliged to request the re-evaluation of an absorber coating the latest until the forthcoming SKN meeting. The absorber has to be sampled by a third party.

*This decision was taken with no negative votes and two abstentions*

Note: This decision replaces decision D1.M5 – Validity of Solar Keymark certificates in case that selectively coated absorbers by different manufacturers are used as equivalent.

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#### **Decision D4.M10 – Absorber coatings to be considered as equivalent**

The document SKN\_N0137R2 shall be updated by Jan Erik Nielsen by implementing the Decision D3.M10 (Procedure for considering selective absorber coatings as equivalent) as mentioned above. After this change is performed the resulting document SKN\_N0137R3 will reflect the current status of absorber coatings to be considered as equivalent.

*This decision was taken with no negative votes and four abstentions*

Note: This decision replaces decision D1.M5 – Validity of Solar Keymark certificates in case that selectively coated absorbers by different manufacturers are used as equivalent.

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**Decision D5.M10 – Validation of annual collector output calculation tool**

Peter Kovacs and his group will prepare a document describing the validation of the annual collector output calculation tool. Based on this document by correspondence a decisions will be made if the annual collector output calculation tool is considered as validated.

*This decision was taken unanimously*

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**Decision D6.M10 – Annual collector energy output included in data sheets**

Provided that the annual collector energy output calculation tool is successfully validated (see Decision D5.M10) values for the presentation of the annual energy output of collectors in the Solar Keymark data sheets shall be determined according to the method described in Annex B1 (Collector data sheet) of the Solar Keymark Scheme rules.

Values for annual energy output of collectors will be included on page 2 in the collector data sheet.

- One month after the annual collector energy output calculation tool is considered as validated values for annual energy output of collectors **should** be included in all new collector data sheets.
- Three month after the annual collector energy output calculation tool is considered as validated values for annual energy output of collectors **shall** be included in all new collector data sheets.
- Three month after the annual collector energy output calculation tool is considered as validated whenever a certificate is renewed, the values for annual energy output of collectors shall be included the related datasheet.
- One month after the annual collector energy output calculation tool is considered as validated licensees may ask for renewal of existing certificates for inclusion of the values for annual energy output of collectors in the datasheet. A fee may be requested for such renewal.
- The detailed description (document SKN\_N0154R0) of the method used for calculating the annual collector energy output of the validated annual collector energy output calculation tool shall be public available at [www.solarkeymark.org](http://www.solarkeymark.org).
- The tool itself as an executable shall be available from [www.solarkeymark.org](http://www.solarkeymark.org)
- The source code of the tool shall be available from a restricted area in the [www.solarkeymark.org](http://www.solarkeymark.org) for empowered certification body and the test labs recognised for testing in connection with Solar Keymark certification. Password for access to this area will be given by the Solar Keymark Network Secretary.
- Calculation of the annual collector energy output for a Solar Keymark collector data sheet shall be done by an empowered certification body or a test lab recognised for testing in connection with Solar Keymark certification.
- In case the annual collector energy output calculation tool is not applicable to a specific collector the calculation of the annual collector energy output is not required

*This decision was taken unanimously*

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**Decision D7.M10 – Solar Keymark certification of PV/T collectors**

The participants present decided that Solar Keymark certification of PV/T collectors as a solar thermal product is possible provided the measurements of the thermal performance are performed with electrical production under MPP conditions.

In addition an optional thermal performance determination without electrical production (open circuit for PV-Module) is possible.

For the electrical load applied for the electrical production an appropriate solution for the MPP tracking shall be used

*This decision was taken with two negative votes and eight abstentions.*

**Note:** This decision replaces decision D5.M7 – Solar Keymark certification of PV/T collectors

→Scheme rules 13.

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**Decision D8.M10 – pre-ageing of solar collector test samples**

The experts present decided that before performing a rain penetration test the solar thermal product should be pre-aged to at least the following extent by using either possibility 1 or possibility 2:

Possibility 1:

Expose the product at least for 15 valid days (according to the validity criteria of EN 12975, 5.4).

Possibility 2:

Two stagnation tests using a solar simulator providing at least 850 W/m<sup>2</sup> and 10°C ambient temperature with a duration of irradiance of at least 4h. In between this two stagnation tests the collector has to reach approximately ambient temperature.

Exposure to outdoor conditions for at least 15 days, not requiring any boundary conditions to be fulfilled.

Two stagnation tests using a solar simulator providing at least 850 W/m<sup>2</sup> and 10°C ambient temperature with a duration of irradiance of at least 4h. In between this two stagnation tests the collector has to reach approximately ambient temperature.

*This decision was taken with six negative votes and two abstentions*

→Scheme rules 13

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**Decision D9.M10 – Revision of Annex D of the scheme rules**

It was decided to revise Annex D of the SK scheme rules as proposed by Maria João Carvalho in document SKN\_N0156R0

*This decision was taken with no negative vote and two abstentions*

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**Decision D10.M10 – Financing of translation and layout of QAISt brochures**

The translation of the QAISt brochures will be supported with an amount of € 300,- per language and the new layout resulting from the translation will be financed completely by the SKN.

The PDF-Files resulting from this activity will be available at [www.solarkeymark.org](http://www.solarkeymark.org)

*This decision was taken with no negative vote and one abstentions*

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**Decision D11.M10 – Global certification – Solar Keymark**

Provided there is not clear statement from CEN until the end of 2011 to open Keymark certification for solar thermal products for certification bodies from third countries until the middle of 2012 a separate certification scheme for solar thermal products will be elaborated.

*This decision was taken with one negative vote and seven abstentions*

The topic related to promotion of Solar Keymark in South America by Jaime Fernández was postponed due to his absence.

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**Decision D12.M10 – Participation at Solar Keymark network meetings**

In case of absence of representatives obliged to participate in the Solar Keymark network meetings they will be informed by the Solar Keymark Secretary that their presence is required.

Furthermore a written statement of the respective body or representative will be requested providing information why he did not participate in the last SKN meeting.

In case of two absences in a row of bodies and representatives obliged to participate in the Solar Keymark network meetings a decision will be made related to require participation at the next meeting and sanctions if this is not the case.

*This decision was taken with three negative votes and three abstentions*

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## MEETING 11

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### **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.*

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### **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  $\pm 1$  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*

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***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*

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***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.*

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***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.*

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***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*

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***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.*

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***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.*

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***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.*

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***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. 1<sup>st</sup>, 2011 until Dec. 31<sup>st</sup>, 2012. Budget 15.000,- € Deadline for proposals October 31<sup>st</sup>, 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.*

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***Decision D11.M11 – Funding of proposals from the 2<sup>nd</sup> 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.*

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***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*

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## MEETING 12

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### **Decision D1.M12 – Introduction of Resolutions**

Decisions concerning changes in:

- SKN Internal Regulations
- SKN Draft Specific Scheme Rules
- SKN Specific Scheme Rules Annexes

are from now on named resolutions.

*This decision was taken with 0 negative votes and 0 abstentions.*

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### **Decision D2.M12 – Only listing of products in combination with data sheets in the SK database**

In the future only products will be listed in the Solar Keymark database of which the data sheets are available. Already listed products without data sheets will be deleted from June 30, 2012 onwards.

*This decision was taken with 0 negative votes and 0 abstention.*

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### **Decision D3.M12 – Funding of proposals from the 3<sup>rd</sup> SCF call**

The proposals recommend by the Solar Certification Fund Steering Group for funding as described in document SKN\_N0183R1 are accepted and the corresponding activities will be funded.

*This decision was taken with 0 negative votes and 2 abstentions.*

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### **Decision D4.M12 – Availability of SK data sheets as Excel-files**

Solar Keymark data sheets will not be made generally available as Excel-files. Based on individual requests specific data can be made available after a corresponding decision by the Solar Keymark network. The cost related to this service can be charged from the one asking for the data or be financed by the SCF.

*This decision was taken with 0 negative votes and 8 abstentions.*

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### **Decision D5.M12 – Extension of SCF project 10-B-CE 2010-SWT**

In order to perform the additional urgently needed activities related to CE marking of solar collectors it was decided to extend the budget of the above mentioned project from the current amount of € 12.900,- to a total amount of € 27.900,-. The project end date will be extended from 01.03.12 to 01.03.13

*This decision was taken with 0 negative votes and 0 abstentions.*

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**Decision D6.M12 – SCEnOCalc**

The collector annual output calculation tool will from now on exclusively be named “Solar Collector Energy Output Calculator (SCEnOCalc)”

*This decision was taken with 0 negative votes and 0 abstentions.*

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**Decision D1. Correspondance –Including absorber coating “Solarceo on Al” in Equivalent Group 1 (aluminium)**

The absorber coating “Solarceo on Al” is included in the Equivalent Group 1 for coatings on aluminium (SKN\_N0137R5).

The procedure for considering coatings equivalent shall be discussed at the next SKN meeting Sept. 2012. Jan Erik Nielsen will draft a new version for the meeting.

*This decision was taken by correspondence in the period 31/5 - 29/6 with 0 negative votes.*

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**MEETING 13**

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***Decision D1.M13 – – Sanctions related to ITC and Pa.L.Mer***

It is required that representatives of the following test labs are present at future Solar Keymark network meetings:

ITC (ES) recognised by AENOR (ES)

Pa.L.Mer. (IT) recognised by ICIM (IT).

In case representatives from the test labs mentioned above are not present at the next SKN meeting the respective certifiers (AENOR and ICIM) shall cancel their contracts. Furthermore these two test labs are excluded to perform Solar Keymark certification activities.

*This decision was taken with 2 negative votes and 7 abstention.*

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***Decision D2.M13 – SKN Budget for 2013***

The budget of the SKN for 2013 as specified in document SKN\_N0201R1 (Solar Keymark Network - total administration budget 2013) and the fees for Solar Keymark certification as specified in SKN\_N0202R0 (Solar Keymark Network fee income) is accepted.

The services and the related budget offered by ESTIF as described in document SKN\_N0203R0 (Budget for services provided by ESTIF to the Solar Keymark Network) are accepted.

*This decision was taken with 0 negative votes and 0 abstention.*

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***Decision D3.M13 – Guide to Solar Keymark Factory Inspection Report***

The guide to the Solar Keymark Factory Inspection Report (Document SKN\_N0204R1) will be made available at the Solar Keymark website.

*This decision was taken with 0 negative votes and 0 abstention.*

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**MEETING 14**

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***Decision D1.M14 – Funding of proposals from the 4<sup>th</sup> SCF call***

The proposals recommended by the Solar Certification Fund Steering Group for funding as described in document SKN\_N0209R1 are accepted and the corresponding activities will be funded.

*This decision was taken with 0 negative votes and 1 abstention.*

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***Decision D2.M14 – Outsourcing of the Keymark***

In order to join forces between the different interest groups dealing with Keymark certification, the Solar Keymark Network requests CCB (CEN certification board) to organise, within the next two months, a meeting with the members of CCB and the convenors / chairmen of the different Scheme Development Groups (SDG) such as e.g. the Solar Keymark Network as well as the empowered certification bodies to inform CCB about the different interests of the involved parties. The idea of the meeting is to design the outsourcing activity in a way that it leads to an overall success of the Keymark in general.

*This decision was taken with 0 negative votes and 1 abstention.*

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## MEETING 15

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### ***Decision D1.M15 – Global certification – Solar Keymark***

As the Solar Keymark Network (SKN) sees an urgent need to transfer Solar Keymark certification into a global certification mark, it requests CEN to change their general certification rules during the on-going revision in such a way that certification bodies all over the world have the possibility to grant Solar Keymark certificates similar to the certification bodies located in Europe in order to ensure a fair competition.

The SKN expects CEN CCB to take action immediately and reply to the SKN related to this aspect at latest until 15<sup>th</sup> February, 2014.

Note: This decision will be send on behalf of the SKN by Jan Erik Nielsen as the SKN secretary to the chairman of CCB

Furthermore, the specific national representatives should send this decision to their national representatives in CCB

*This decision was taken unanimous with 0 negative votes and 0 abstentions.*

### ***Decision D2.M15 – Validity of Solar Keymark certificates in case of Solarceo (CU)***

The participants present decided that in context with Resolution R5.M12, coatings on copper absorbers with the following brand names are considered as equivalent:

Blutec etaplus CU, Sunselect, Tinox classic, Tinox energy CU and Solarceo (CU)

Note: Document SKN\_N0137R8 (Equivalent absorber coatings) will be updated accordingly leading to document SKN\_N0137R9.

*This decision was taken unanimous with 0 negative votes and 0 abstentions.*

### ***Decision D3.M15 – Equivalency of EN 12975-2:2006 and EN ISO 9806:2013 with regard to Solar Keymark testing***

The Solar Keymark network considers the existing EN 12975-2:2006 and the upcoming EN ISO 9806:2013 being equivalent with respect to Solar Keymark testing until the revised EN 12975-1 is available and the Solar Keymark scheme rules have been changed accordingly.

For the period until the revised EN 12975-1 is published, the Solar Keymark Network requires to apply the test methods as defined in EN ISO 9806, to enable that all collector types mentioned in the scope of EN ISO 9806 can be tested as a basis for Solar Keymark certification.

In order to facilitate the usage of the new EN ISO 9806:2013 the following table shows the required tests, the current reference to EN 12975-2 and the corresponding reference to EN ISO 9806 and the new section heading.

Table 1: Required tests according EN 12975-1:2006 and references to test procedure

Required test	Reference EN 12975-2:2006	New Reference EN ISO 9806
Internal pressure for absorber	5.2 of EN 12975-2	6 Internal pressure tests for fluid channels
High temperature resistance	5.3 of EN 12975-2	9 High-temperature resistance test
Exposure	5.4 of EN 12975-2	11 Exposure and pre-exposure test
External thermal shock	5.5 of EN 12975-2	12 External thermal shock test
Internal thermal shock	5.6 of EN 12975-2	13 Internal thermal shock test
Rain penetration	5.7 of EN 12975-2	14 Rain penetration test
Freeze resistance	5.8 of EN 12975-2	15 Freeze resistance test
Mechanical load	5.9 of EN 12975-2	16 Mechanical load test with positive or negative pressure
Impact resistance	5.10 of EN 12975-2	17 Impact resistance test
Final inspection	5.11 of EN 12975-2	18 Final inspection
Thermal performance	6 of EN 12975-2	20 Performance testing of fluid heating collectors
Stagnation temperature	Annex C of EN 12975-2	10 Standard stagnation temperature of liquid heating collectors

*This decision was taken unanimous with 0 negative votes and 0 abstentions.*

Note: Due to the need that empowered certification bodies and recognized test laboratories have to formalize to their National Accreditation Bodies (NAB) the request of change of their accreditation scope to include the new standard EN ISO 9806, the application of the decision may only be formally implemented when each NAB decides about the correspondence between both standards. The empowered certification bodies and recognized test laboratories should try to solve the formalities with their NAB a.s.a.p. but at latest within a transition period of 6 months provided this exists.

However it is recommended to use the procedures described in EN ISO 9806 as soon as the final version of this document is officially available.

#### **Decision D4.M15 – Calculation of the Collector Annual Output (CAO)**

For solar thermal collectors operated with a liquid as heat transfer fluid the annual solar collector output calculated with ScEnOCalc shall be given only in combination with the location and mean fluid temperature according to the information specified in the corresponding Solar Keymark data sheet.

Furthermore a reference to the number (zzz) of the corresponding Solar Keymark certificate has to be given.

The way how the “Collector Annual Output” (CAO) yyy shall be given is as follows:

CAO<sub>location at xx °C</sub>: yyy kWh/a based on Solar Keymark certificate number zzzz

Note: Only the locations and the temperatures xx given in the latest version of the Solar Keymark data sheet of the Solar Keymark scheme rules shall be used.



In addition for PVT collectors it has to be stated if the Collector Annual Output is calculated with or without electricity production.

*This decision was taken unanimous with 0 negative votes and 0 abstentions.*

#### **Decision D5.M15 – SKN Budget for 2014**

The budget of the SKN for 2014 as specified in documents SKN0221R0 (Financial status 2013 - budget 2014), SKN\_N0222R1 (Expected fee income 2014 and expense) and SKN\_N0223R0 (Services to be provided by ESTIF to the Solar Keymark Network in 2014) is accepted by the Solar Keymark Network.

*This decision was taken with 0 negative votes and 0 abstention.*

#### **Decision D6.M15 – CEN fees for 2015**

Taking into account the extremely bad economic situation of the European solar thermal industry the Solar Keymark Network decreased the share of the fees of Solar Keymark resulting in a reduction of the available budget for 2014 of around 17.000 €.

Despite this the European solar thermal industry requested a further reduction of the fees for 2015. In order to share this burden the Solar Keymark Network requests that CCB reduce the fees for Keymark certification for main type licences from 300 € to 200 € and from subtype licences from 60 € to 40 €.

The SKN would appreciate it very much if CEN CCB accepts this proposal and request a confirmation to the SKN related to this aspect at latest until 15<sup>th</sup> February, 2014.

Note: This decision will be send on behalf of the SKN by Jan Erik Nielsen as the SKN secretary to the chairman of CCB

Furthermore the specific national representatives should send this decision to their national representatives in CCB

*This decision was taken with 1 negative votes and 1 abstention.*

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## MEETING 16

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### ***Decision M16.D1 – Funding of proposals from the 5<sup>th</sup> SCF call***

The proposals recommend by the Solar Certification Fund Steering Group for funding as described in document SKN\_N0230R1 are accepted and the corresponding activities will be funded.

*This decision was taken with 0 negative votes and 1 abstention.*

### ***Decision M16.D2 – Recommendations of the Solar Keymark Network related to tendering processes for solar thermal collectors and projects***

The Solar Keymark Network recommends that the following aspects should be the technical basis for national and international tendering processes for solar-thermal projects:

1. Only solar-thermal collectors certified by Solar Keymark or by other adequate certification schemes such as SRCC or IAPMO can be used. Handing in the corresponding certificates and data sheets shall be requested.
2. As thermal performance criterion a calculated annual collector or system output shall be used.

Note 1: One appropriate tool for the calculation of the annual collector output for solar thermal collectors is the freely available Solar Keymark calculation tool “ScenoCalc” (<http://www.sp.se/en/index/services/solar/ScenoCalc/Sidor/default.aspx>)

Note 2: For large scale systems the IEA SHC Task 45 factsheet “annual performance guarantees for output of large collector fields” is available via:

Link: <http://task45.iea-shc.org/data/sites/1/publications/IEA-SHC-T45.A.3.2-TECH-Annual-Output-Guarantee.pdf>

*This decision was taken with 0 negative votes and 2 abstentions.*

### ***Decision M16.D3 – Collector Gross area to be used in ERP documents***

The Solar Keymark Network got aware of the fact that the collector gross area might not be used in the latest version of the ERP (ERP: Energy Related Products) documents. As in the latest version of ISO 9806:2013 only the collector gross area will be determined and used as reference area the Solar Keymark Network strongly requests to use the collector gross area in the context of the ERP documents.

Note: This Decision should be communicated to the European Commission by the Solar Keymark Network.

*This decision was taken with 0 negative votes and 0 abstentions.*

### ***Decision M16.D4 – Recommendation to certifiers for reconsidering agreements with specific test labs and inspectors***

In special cases, e.g. if the result of the work performed is of unacceptable poor quality, the Solar Keymark Network can recommend to the certifiers to reconsider their agreements with specific test labs and inspectors.

*This decision was taken with 0 negative votes and 0 abstentions.*

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## MEETING 17

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### **Decision M17.D1 – Funding of proposals from the 5<sup>th</sup> SCF call**

Based on the documents that provided the basis for the specific decisions concerning the equivalency of absorber coatings Jan Erik Nielsen will fill in the tables of the document SKN\_N0137R10 and calculate the mean values. The resulting document SKN\_N0137R11 will be made available via the Solar Keymark website.

*This decision was taken with 0 negative votes and 0 abstentions.*

### **Decision M17.D2 – Name change of manufacturer or product**

No new test report is required if only the name (including address and legal status) of the certificate holder is changed (but not the product and its documentation itself).

*This decision was taken with 0 negative votes and 1 abstention.*

### **Decision M17.D3 – SKN Budget for 2015**

The budget of the SKN for 2015 as specified in documents SKN\_0245R0 (Financial status 2014 - budget 2015), SKN\_N0246R0 (Expected fee income 2015 and expense) and SKN\_N0247R0 (Services to be provided by ESTIF to the Solar Keymark Network in 2015) is accepted by the Solar Keymark Network.

*This decision was taken with 0 negative votes and 0 abstentions.*

### **Decision M17.D4 – Corrections related to EN ISO 9806:2013**

The Solar Keymark Network requests Jan Erik Nielsen as the Solar Keymark Network secretary to send document SK\_N0244R0 to ISO TC180 secretariat and to TC 312 WG 1 convener and to submit a request for a modification of the standard with the necessary corrections.

Furthermore testing laboratories using the standard EN ISO 9806:2013 shall already now consider these corrections when performing tests.

*This decision was taken with 0 negative votes and 0 abstentions.*

### **Decision M17.D5 – New solar collector data sheet**

It was agreed that Andreas Bohren shall revise the data sheet according to the result of the discussions performed at the present meeting.

The resulting version of the data sheet will be circulated by Jan Erik Nielsen to the SKN.

Furthermore the SKN requests SP to update ScEnOCalc according to the latest version of the data sheet.

*This decision was taken with 0 negative votes and 0 abstentions.*

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## MEETING 18

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### ***Decision M18.D1 – Absorber coatings to be considered as equivalent – revision of document SKN\_N0137R11***

Since Blutec etaplus CU and Blutec etaplus\_al are not available on the market any more they should be marked with a corresponding note. Furthermore the use of values for absorptivity and emissivity specified by the manufacturer and measured by some labs is not consistent. This is also influencing the mean values listed in the tables.

The document should be revised under the lead of Jan Erik Nielsen.

*This decision was taken with 0 negative votes and 0 abstentions.*

### ***Decision M18.D2 – SCF budget allocation for standardisation related activities***

A minor part of the annual SCF funding should be allocated to convenors, liaison officers and secretaries in relevant standardisation committees. This part should not exceed 20% of the total SCF budget.

*This decision was taken with 0 negative votes and 1 abstention.*

### ***Decision M18.D3 – Funding of proposals from the 6<sup>th</sup> SCF call***

The proposals recommend by the Solar Certification Fund Steering Group for funding as described in document SKN\_N0258R0 are accepted and the corresponding activities will be funded.

*This decision was taken with 0 negative votes and 1 abstention.*

### ***Decision M18.D4 – Voluntary collector energy output label***

The Solar Keymark Network considers the idea of a voluntary collector energy output label as an interesting idea that should be further investigated, especially also with regard to legal, technical and marketing aspects. Based on the results of these investigations, the topic will be discussed again at the next Solar Keymark Network meeting.

Provided the outcome of these investigations is positive, the collector energy output label can be included in the Solar Keymark scheme rules as a voluntary possibility for marking solar collectors. In principle it is also interesting to extend the idea of a voluntary solar energy output label to thermo-siphon systems.

*This decision was taken with 0 negative votes and 0 abstentions.*

### ***Decision M18.D5 – New collector data sheet***

It was decided that a modified version of ScenoCalc including the new collector data sheet will be prepared by Patrik Ollas taking into account the comments listed in the agenda of the 18<sup>th</sup> SKN Meeting (document SKN\_N0256R4) and the aspects mentioned by Gerhard van Amerongen during

the meeting with regard to Energy Labelling and EPBD.

Furthermore in this context a validation of the modified version of ScenoCalc shall be made available to the Solar Keymark network.

Additionally a procedure how to deal with test results from tests performed according to EN 12975-2 shall be elaborated. The test standard used for testing shall be listed on the data sheet as well.

A vote on the new version by correspondence will take place approx. in May 2015.

Provided the result of the vote is positive, Annex B of the Solar Keymark Scheme rules named “Harmonised format for collector data sheet” is revised according to new version of ScenoCalc including the new collector data sheet

*This resolution was taken with 0 negative votes and 0 abstentions.*

**Decision M18.D6 – Funding of AENOR on behalf of Jaime Fernandez Gonzalez-Granda as working group convenor for the elaboration of SKN\_N0106\_AnnexH\_R1**

A funding of 500 € for AENOR on behalf of Jaime Fernandez Gonzalez-Granda, the convenor of the working group that elaborated the document for Resolution M17.R5 – Transition from EN 12975-1&2 to EN 12975-1 and EN ISO 9806:2013 is granted.

This document was finally approved as SKN\_N0106\_AnnexH\_R2.

*This resolution was taken with 0 negative votes and 1 abstention.*

**Decision M18.D7 – Election of the SKN chairman at the 19. SKN meeting**

The election of the SKN chairman will be performed at the 19. SKN meeting in October 2015 in Paris in order to prepare the election in a proper way.

*This decision was taken with 0 negative votes and 1 abstention.*

Furthermore it was discussed if the Solar Keymark Network internal regulations should be changed in such a way that the chairman can be re-elected more than one time.

As a result of this discussion it was agreed that, if considered as sense-full, a proposal for a corresponding resolution can be handed in for the next meeting.

The voting on this resolution will then be performed prior to the election of the chairman.

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## MEETING 19

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### ***Decision M19.D1 – Establishment of a working group for including hydraulic flow schemes in collector data sheets***

A working group is established to elaborate a simplified scheme to indicate in a comprehensible way the hydraulic flow scheme of collectors and to indicate it in the Solar Keymark data sheet.

For the time being it is very welcomed if the test laboratories describe the hydraulic flow scheme in the “Comments of testing laboratory”-field of the data sheet.

The “hydraulic flow scheme working group” is consisting of the following persons:  
Andreas Bohren (Chair), Ralf Köbbeman-Rengers, Luis González-Monroy

*This decision was taken with 0 negative votes and 1 abstention.*

### ***Decision M19.D2 – SKN Budget for 2016***

The budget of the SKN for 2016 as specified in documents SKN0265R0 (Solar Keymark Network-Administration Budget 2016), SKN\_N0266R0 (SKN fee income and expenses 2015 & 2016) and SKN\_N0269R0 (Services to be provided by ESTIF to the Solar Keymark Network in 2016) is accepted by the Solar Keymark Network.

*This decision was taken with 0 negative votes and 0 abstentions.*

### ***Decision M19.D3 – Voluntary solar energy label***

The Solar Keymark Network supports the idea of a harmonized voluntary energy label for solar collectors and solar thermal only systems. One requirement for this label will be that the data used for the labeling is based on the Solar KEYMARK data sheets listed in the Solar KEYMARK database.

*This decision was taken with 2 negative votes and 7 abstentions.*

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## MEETING 20

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**Decision M20.D1 – Proposal 11 of SKN\_N0268R0 regarding the information of original tests on OBL Certificates to be studied by the CB WG in order to present a Resolution**

A WG composed of Katharina Meyer (leader) and Jaime Fernandez will study Proposal 11 of Andreas Bohren and prepare a Resolution.

*Information on votes: Unanimous decision*

**Decision M20.D2- Use of new data sheets for all new Certificates, even when the original products have been tested and certified according to EN 12975**

All new certificates shall be issued using the actual version of the data sheet. This refers to all types of certificates, including OBL and renewals. Even if the originals are related to EN 12975. All calculations shall be done according to gross area and EN ISO 9806 parameters.

*Information on votes: Unanimous decision*

**Decision M20.D3 – Establish a WG to prepare a resolution for a complete procedure for complaints**

A WG composed of Pedro Dias, Katharina Meyer (Chair), Ulrich Fritzsche, Stephan Fischer, Daniel Eggert, Christian Stadler, Alberto Garcia, Andreas Bohren, Klaus Mischensky, Harald Poscharnig and Jaime Fernandez is created to prepare a complete procedure that can serve as basis for a Resolution to be presented at the next SKN Meeting .

*Information on votes: Unanimous Decision*

**Decision M20.D4 – The use of the Keymark database by LabelPack A+**

“The Solar Keymark Network welcomes the cooperation with the project Labelpack A+ and the work on developing tools that can facilitate the calculation of the package label for water and space heating systems within the framework of the ERP regulation. The package label and the facilitation of its calculation are extremely relevant for the solar thermal industry and as such, the Solar Keymark Network wants to continue to pursue this cooperation with the Labelpack A+ project. Taking into account that the project has already developed a calculation tool for the package label, available online, the SKN is glad to support the interconnection of the data in its database and the tool provided by the Labelpack A+ project. This interconnection will allow the calculation tool to be more appealing to installers, by providing easy access to a large number of solar thermal products and will increase the value proposition of SKN certificates, by providing an additional benefit for SK certificate holders.

As such, the Labelpack A+ shall assist the efforts in the development of the SKN certificate database in what concerns the interconnection capabilities.”

*Information on votes: 0 negative votes - 4 abstentions*

**Decision M20.D5 - Contacting Solergy for use of Keymark logo**

It is decided that the SK manager contacts the entities responsible for this label and asks them to revise the reference to the Solar Keymark in this commercial label.

Similar procedures shall be taken with regard to other similar labels that are not officially endorsed by the SKN.

*Information on votes: 0 negative votes - 1 abstentions*

**Decision M20.D6 – Approval of projects that will receive Solar Certification Fund**

The proposals recommended by the Solar Certification Fund Steering Group for funding as described in document ‘SKN\_N0273R1-SCF-Recommendations’ are accepted and the corresponding activities will be funded.

*Information on votes: 0 negative votes - 4 abstentions*

**Decision M20.D7 – Establishment of a WG for AP2: Improve Marketing and Communication activities**

Establish a WG with the following members: Oscar Mogro, Pedro Dias (Chair), Christian Stadler, Jaime Fernandez, Jan Erik Nielsen, Henry Rosik.

*Information on votes: Unanimous decision.*

*See item 33 regarding the recognition of the Keymark outside Europe, it was agreed that this working group would also take on this task.*

**Decision M20.D8 – Establishment of a WG for AP3: Analyze the development of a certification scheme for installers and installations**

Establishment of a WG with the following members: Gerard Van Amerongen, Peter Kovacs, Jan Erik Nielsen, Jaime Fernandez, Katharina Meyer (Chair), Vinod Sharma, Malte Kottwitz, Luis González, Alberto Garcia, Pedro Dias, Oscar Mogro and Henry Rosik.

*Information on votes: Unanimous decision.*

**Decision M20.D9 – Establishment of a WG for AP4: Effort to boost the Certification of new Products in Scheme Rules**

Establishment of a WG with the following members Gerard Van Amerongen, Katharina Meyer (Chair), Jaime Fernandez, Ulrich Fritzsche, Stephan Fischer, Korbinian Kramer.

*Information on votes: Unanimous decision*

**Decision M20.D10 – Establishment of a WG for AP6: Prepare a thorough plan for all the new Legal Requirements and future changes in the Market**

Establish a WG with the following members Gerard Van Amerongen (Chair), Ulrich Fritzsche, Pedro Dias, Jaime Fernandez, Oscar Mogro, Christian Stadler, and Korbinian Kramer.

*Information on votes: Unanimous decision*



**Decision M20.D11 – Appointment of Harald DruECK as Honorary SKN Chairman**

Appreciating Harald's superb SKN chairmanship over the years, he is appointed as "Honorary SKN Chairman". Honorary SKN Chairmen can attend any future SKN meetings as observers.

Note: Experience and network of Honorary Chairmen could be useful for the continuity of the SKN and in connection with promoting the Solar Keymark

*Information on votes: Unanimous decision*

**Decision M20.D12 – Funding to TÜV Rheinland Energie und Umwelt GmbH for the work done by Ulrich Fritzsche as leader of the Working Group for Resolution regarding new Annex J for PVT products**

To provide the funding of 500 € to TÜV Rheinland Energie und Umwelt GmbH for the work done by Ulrich Fritzsche in application of section 7 of the Internal Regulations of the SKN for his work as Working Group leader.

*Information on votes: Unanimous decision*

**Decision M20.D13 – Creation of a Working Group to develop a new procedure for solar thermal system long term prediction according to EN 12977-2**

Establishing a WG with the following members : Katharina Meyer, Maria Joao Carvalho, Oscar Mogro, Gerard Van Amerongen, Emmanuel Leger, Korbinian Kramer, Ulrich Fritzsche (Chair), Alberto Garcia and Stephan Fischer.

*Information on votes: Unanimous decision*

**Decision M20.D14 – Participants in new Inter laboratory Comparison for SCF7 Project**

The following laboratories will participate in the Inter Laboratory Comparison led by Andreas Bohren: INTA, SP, ITW, LNEG, TUV, CSTB, CENER, ISFH, BELENOS, CESP, AIT, AELAB, TUV SHANGHAI, FRAUNHOFER and ENEA. It is open for other test labs to participate; the codes and links needed for participation are obtainable from the SKN Manager.

*Information on votes: Unanimous Decision*

**Decision M20.D15 – Update of Solar Keymark Brochure**

A draft of the Keymark Brochure will be circulated to the SKN and ask for comments with the aim to present a new version of the brochure for the next SKN meeting

*Information on votes: Unanimous Decision*

**Decision M20.D16 – Establishment of a Working Group for a new absorber coating**

A new Working Group is established to study the proposal of Stephan Fischer for a new absorber coating with the following members: Jan Erik Nielsen, Stephan Fischer (chair), Daniel Eggert and Andreas Bohren

*Information on votes: Unanimous Decision*

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## MEETING 21

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**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**

As a follow up of the WG that presented a revised procedure for complaints, a WG is established to revise the 10% Rule of section 6.3 and propose a resolution for the next SKN Meeting and find a financial solution for dealing with complaints.

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

*Information on vote: Unanimous decision*

**Decision M21.D2 – To develop a proposal for an SCF Project for a Marketing Plan for 2017 by Marketing and Communication WG**

The WG for Marketing and Communication will continue its work and prepare a proposal for an SCF Project to develop a Marketing Plan for 2017. A survey will be sent to SKN members. WG members are Pedro Dias (Chair), Oscar Mogro, Britt Bremer, Christian Stadler, Jaime Fernandez, Jan Erik Nielsen and Henry Rosik

*Information on vote: Unanimous decision*

**Decision M21.D3 – The SKN supports that the KMO (held by DIN CERTCO) will lead a WG with stakeholders from different Keymark Groups to study the promotion of the Keymark in general, especially including the possibility of a change in the Keymark logo**

The KMO (held by DIN CERTCO) will lead a WG with stakeholders from different Keymark groups to study the possibility to improve promotion of the Keymark in general. In particular, one aspect that will be studied is the possibility to change the logo and present the proposal to CEN. The outcome of this WG will be presented in 17<sup>th</sup> February to CEN. The WG will be developed within the month of November. Members from the SKN to join this WG are Jaime Fernández, Pedro Dias, Jan Erik Nielsen.

*Information on vote: Unanimous decision*

**Decision M21.D4 – WG for Action Plan AP3: Installers and installations continues by Katharina Meyer and Jaime Fernandez the work until the 22<sup>nd</sup> SKN Meeting**

The WG for Action Plan AP3: “Analyse the development of a certification scheme for installers and installations” that was created in 20<sup>th</sup> SKN meeting (Berlin) continues its work and will present its final conclusions at 22<sup>nd</sup> SKN meeting. WG members are only going to be Jaime Fernandez and Katharina Meyer.

*Information on vote: Unanimous vote*

**Decision M21.D5 – Create a WG for air collectors**

Create a working group including institutes that have tested air collectors and CBs that have granted Keymark certificates to air collectors. The objective is to share working methods and experience and analyse the need for improvements. The output will be pinpointing potential problems. Members are: Korbinian (Chair), Jaime Fernández, Patrick Ollas, Katharina Meyer.

*Information on vote: Unanimous decision*

**Decision M21.D6 – To add an SCF call topic for broadening the scope of the Solar Keymark**

The SKN will propose a call topic for an SCF project for “Broadening the scope of the Solar Keymark”.

The project should focus on two paths to attack the ‘pyramid’: using the components data and broadening the scope upwards in the ‘pyramid’. The goal of the project is to increase and ensure the value of the Solar Keymark now and in the near future. It should give clear directions to move to, how to come there, timetables, types of customers and expected commercial values. In particular, it should make a feasibility study on a new certification scheme for ‘systems with solar contribution’. (this includes the third proposal of AP4-New Prod)

The project should be executed by proven experts in the broad field of certification, heating markets, regulations, government policies and people with a good commercial mind.

*Information on vote: Unanimous decision*

**Decision M21.D7 – To add an SCF call topic for broadening the scope of Quality for collectors and systems.**

The SKN will propose a call topic for an SCF project for: “Broadening the scope of quality for collectors and systems”. The purpose of the project is to prepare and implement a plan to actively support developments aimed at standards or comparable references that could bring quality issues such as drinking water quality, construction issues, emission issues, energy costs issues and life cycle assessment issues to the level of a Solar Keymark certification scheme.

*Information on vote: Unanimous decision*

**Decision M21.D8 – To add an SCF call topic for Adding value to the Keymark Certificates**

The SKN will propose a call topic for an SCF project “Improve the added value of certificates by facilitating certified data to the most important databases, design and development tools”. In relation with the work done in other SCF Projects, this project will assure that the SKN database facilitates links to most important databases, with a special importance to all ErP tools and also to design and development tools.

*Information on vote: unanimous decision*

**Decision M21.D9 – SCF Project 6C14\_1 – Other model is to continue with the second phase**

The SKN agrees that SCF Project 6C14\_1 – Other model should continue with the second phase.

*Information on vote: Unanimous decision*

**Decision M21.D10 – The document SKN\_ 288r0 insulationExchange will be studied to be presented for a Resolution at the next SKN meeting**

The document SKN\_ 288r0 insulationExchange will be studied by members of the SKN. Comments are to be sent to Andreas Bohren and a final document will be presented for Resolution at the next SKN meeting.

*Information on vote: Unanimous decision*

**Decision M21.D11 – To prepare the way to have one physical SKN meeting and one or two SKN web meetings in the year**

The Chairman and Manager of SKN and SKN Secretary will propose a new way of meeting so that only one physical meeting takes place and one or two web meetings take place.

*Information on vote: Unanimous decision*

**Decision M21.D12 – Proposal to do every second inspection visit via web**

The CB WG will study this proposal and come back with an answer at the next SKN meeting. This analysis will include also working with inspection bodies based in other locations in order to reduce travelling costs and CO<sub>2</sub> emissions. The inspection bodies interested in preparing a pilot project may contact their corresponding CB in order to prepare the work and present conclusions at the next SKN meeting.

*Information on vote: Unanimous decision*

**Decision M21.D13 – Establishment of a WG to develop the strategy of SK**

A WG to develop the strategy of the Solar Keymark will be established. In order to support the work of the WG an SCF call will be developed with the input of the WG.

Members are Jaime Fernández(chair), Harald Drucek, Gerard Van Amerongen, Jan Erik Nielsen, Ullrich Fritzsche, Katharina Meyer, Pedro Dias, Christian Stadler, Korbinian Kramer and Henry Rosik.

*Information on vote: Unanimous Vote*

**Decision M21.D14 – Approval of Budget for 2017**

The budget for 2017 is presented within document SKN\_N0290R0-SKNbudget2017 and is approved

*Information on vote: Unanimous Decision*

**Decision M21.D15 –Proposals for call topics**

- Co-financing project to develop an alternative to In-Situ software for system testing
- Solar Keymark Scheme rules for absorber coatings (follow-up project)
- Elaboration of Strategy for Solar Keymark
- Broadening the scope of the Solar Keymark with respect to products
- Broadening of the scope of Solar Keymark Certification with regard to quality issues for collectors and systems
- Adding value to the Keymark Certificates
- Financing of liaison officers
- Promotion of Solar Keymark
- Elaboration of modified acceptance criteria regarding the results of special test (section 6.3 of Solar Scheme Rules)
- Any other good ideas

*Information on vote: Unanimous Decision*

**Decision M21.D16 – Establishment of a WG to improve the SCF Working Rules**

The WG should deal with the following issues:

- Create a short procedure to allow the possibility to present allegations in case a Project is not approved and the presenter is not satisfied with the reason
- Increase flexibility of approval of Projects under special circumstances
- Reduce bureaucracy and speed up the process
- Increase control of overdue Projects
- Improve procedure where there maybe conflict of interests during evaluation process
- Clarify election process of SCF members and Chair'

Members of WG: Harald Drück(chair), Jan Erik Nielsen, Jaime Fernández, Pedro Dias. A proposal for a resolution for modified SCF Working Rules will be presented at next SKN meeting.

*Information on vote: Unanimous decision*

***Decision M21.D17 – Incomplete data sheets***

Incomplete data sheets shall be deleted from the database and certificates withdrawn if the data sheets have not been complete for more than half a year already. New certificates are only valid with complete data sheets.

*Information on vote: Unanimous decision*

***Decision M21.D18 – To treat EN ISO 4126-1 and EN ISO 4126-7 as “equivalent” to EN 1489 and 1490 as minimum requirement for Solar Keymark certification.***

The SKN decides to accept the harmonized European standards EN ISO 4126-1 (Safety valves) and EN ISO 4126-7 (Common data) as basic requirements for safety valves used in Solar Keymark certified systems. These standards should be incorporated into EN 12976-1 and EN 12976-2 within their next revision.*Information on vote: Unanimous decision*

## MEETING 21A (web)

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***Decision M21A.D1: Reactivate WG for PVT to improve Annex J***

Reactivate PVT WG and propose a resolution with changes in Annex J of Solar Keymark Scheme Rules for the next SN meeting in March

*Information on Vote: 31 positive votes, 0 negative votes, 2 abstentions,*

***Decision M21A.D2 : Use of new version 3.0 for calculation for data sheets for air collectors.***

From January 2017 only the new version Air Cow program 3.0 shall be used to feed Solar Keymark data sheets.

*Information on Vote: 25 positive votes, 0 negative votes, 8 abstentions*

## MEETING 22

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### **Resolution M22.R1 - Include Liaison officers in list in clause 2.2 of SKN internal rules**

To modify SKN\_N0102R12 Internal regulations by adding the following phase in section 2.2 Observers and guests: ‘Liaison officers to CEN and ISO TC’s’

*Information on Vote: Unanimous decision*

### **Decision M22.D2 – To create a Participation Rules WG to elaborate a Resolution in order to adapt to the new structure of SKN Web meetings and to modify the voting preconditions**

This WG is created to propose a Resolution to amend SKN\_N0102R12 Internal regulations in order to adapt the document to the new structure of SKN meetings (see M22.D1) and to take into consideration the ideas presented for voting preconditions (see Item 10 of 22<sup>nd</sup> SKN meeting).

Members of the WG are: Andreas Bohren, Pedro Dias, Harald Porsharnig, Katharina Meyer(Chair) , Harald Druock.

*Information on Vote: Unanimous decision*

### **Decision M22.D3 - New Sections with lists of Resolutions and procedure for updates by SKN Manager**

Each new revision of a document will have a new section showing the Resolutions taken from the last version. This will affect the following documents:

- Specific scheme rules
- SKN working rules
- SCF working rules

Once any Document is officially changed into a new version and updated at the SKN website, the SKN Manager will communicate this to the SKN.

*Information on Vote: Unanimous decision*

### **Decision M22.D4 - Funding of proposals from the 8th SCF call**

The proposals recommend by the Solar Certification Fund Steering Group for funding as described in document SKN\_N0317R1-SCF8-Recommendations are accepted and the corresponding activities will be funded.

*Information on Vote, Unanimous decision*

### **Decision M22.D5- SHAMCI-SKN WG to study possibilities of priority issue for 9<sup>th</sup> SCF call**

The Solar Keymark Network highly appreciates the activities performed by SHAMCI in order to strengthen the quality and reliability of solar thermal products in the Arab region. Furthermore the Solar Keymark Network would be in favor of a harmonization of the testing, inspection and



certification procedures of SHAMCI and Solar Keymark under the umbrella provided by the Global Solar Certification Network (GSCN). A working group composed of members of SHAMCI and SKN will study the impact of a collaboration between both parties and present its conclusions in the SKN meeting of October 2017. If these conclusions are positive, it may be possible to enter a project related to the elaboration of the co-operation between SKN and SHAMCI as a priority issue in the 9th SCF call, as well as it will be eligible for similar projects to submit future proposals according to specific criteria proposed by the SCF Steering Group and the SKN.

*Information on Vote: Unanimous decision*

#### **Decision M22-D6 - Creation of a SHAMCI WG**

A WG is created to study the collaboration of SKN with SHAMCI. The conclusions of the WG will be presented at the SKN Meeting in autumn 2017. The members are: Ashraf Kraidy (chair), Harald Drucek, Korbinian Kramer, Katharina Meyer, Pedro Dias, Jean Batiste, Emmanuelle Legers, Jan Erik Nielsen, Jaime Fernandez.

*Information on Vote: Unanimous decision*

#### **Decision M22.D7 - Voluntary use of new Manufacturers Declaration form for PVT Collectors and in substitution of points a) and b) of section 6.1 of Annex J of Solar Keymark Scheme Rules**

It is decided to approve document SKN\_N0325\_PVT\_Declaration as a declaration signed by the manufacturer of PVT collectors. The use of this document is voluntary for the time being. It is possible for Certification Bodies to accept this document, properly filled out, in substitution of applying points a) and b) of section 6.1 General Requirements of Annex J of the Solar Keymark Scheme Rules (SKN\_N0106AnnexJ\_R2). In practice, this condition implies withdrawing the requirement of ISO 5 System Certification on PVT collectors or PV modules but leaving the requirement for complete testing on the PVT collector (which may be achieved also by complete testing on PV module + partial testing on PVT collector) according to IEC standards by accredited laboratories. The PVT WG will continue its work to improve Annex J and present a Resolution for the next SKN meeting of October 2017.

*Information on Vote: 2 negative votes, 2 abstentions. (The CB representative Soeren Scholz asked to apply section 4.3 of internal rules. CBS then voted with 4 positive votes and 2 negative votes, therefore the voting was positive)*

#### **Decision M22.D8 – Procedure for funding changes in ScenoCalc**

The SKN will put aside a reserve of 5.000 € in every annual budget for updating of ScenoCalc. Funding from this reserve is then to be released on request by SKN to be spent on specific well defined activities related to Scenocalc. There will be a specific discussion area at the SKN Website where any SKN members may propose changes or improvements related to Scenocalc.

SP will take these recommendations for the preparation of a proposal for a Resolution related to changes made in Scenocalc together with a proposal for a decision related to the required budget. SP will send the proposals to the SKN as basis for a resolution and a decision to start the work.

*Information on Vote: Unanimous decision*

**Decision M22.D9 – Comments on data sheets when original test is not performed by ISO 9806****Proposal for a decision related to the use of the solar collector data sheet Version 5.01**

According to SKN Resolution M20R1 only the collector data sheet version 5.01 of date 2016-03-01 are allowed to be used. In case not all information required to fill out the data sheet completely is available, the following remark shall be added in the comment field:

“This data sheet is not complete as the testing of the collector was performed according to EN 12975-2:2006 (which is replaced by EN ISO 9806:2013)”

*Information on Vote: Unanimous decision*

**Decision M22.D10- System data sheet WG to prepare the work related to Resolution M22.R7**

A WG is created to develop the work for the Resolution M22.R7 . WG members are: Maria Carvalho (Chair), Jan Erik Nielsen, Stephan Fischer, Ulrich Fritzsche and Patrik Ollas. The final work for a proposal for Resolution will presented at the next SKN meeting of autumn 2017.

*Information on vote: Unanimous decision*

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## MEETING 23

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### **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 22<sup>nd</sup> 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*

### **Decision M23.D2 – Date for election of SKN chairman on the 23<sup>rd</sup> SKN meeting**

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

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

### **Decision M23.D4 – Election of SKN chairman at the 23<sup>rd</sup> 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*

### **Decision M23.D5 – 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 1<sup>st</sup> of May 2018 onwards.

After 1<sup>st</sup> 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 version 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*

**Decision M23.D6 – 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: x (81 %) positive votes, y (0 %) negative votes, z (19 %) abstentions of in total 27 votes*

**Decision M23.D7 – 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: x (67 %) positive votes, y (0 %) negative votes, z (33 %) abstentions of in total 27 votes*

**Resolution M23.R7 – 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:

**Main type fee of 50 €**

**Sub type 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.D8 – 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*

**Decision M23.D9 – 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: x (64 %) positive votes, y (0 %) negative votes, z (36 %) abstentions of in total 28 votes*

**Decision M23.Dx – Priority topics for the 9<sup>th</sup> SCF call**

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

- **Titel: 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.
- **Titel: Online tool package label**
- **Titel: Finalizing and implementing the Solar Keymark On-line Database**  
Remarks: Make decision on final layout for the on-line database – and implement
- **Titel: 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 9<sup>th</sup> SCF call will be launched on Nov. 17<sup>th</sup>, 2017

Latest date for handing in proposals is: Dec. 20<sup>th</sup>, 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*

## **Contact persons**

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