
IEA-PVPS, Task 15, Subtask C

International framework for BIPV specifications

We agree on the following activity names:

- ❑ International definition of »BIPV« (Activity C.0)
- ❑ **Analysis of user needs for BIPV & BIPV functions** (Activity C.1)
- ❑ **BIPV technical requirements overview** (Activity C.2)
- ❑ Multifunctional BIPV evaluation (Activity C.3)
- ❑ Suggest topics for exchange between different standardization activities on international level (Activity C.4)

WE ARE NOT MAKING A NEW STANDARD FOR BIPV!!!

SUBTASK C

C.0 Definition discussion

Task C will base its work on EN 50583 definition for BIPV

Photovoltaic modules are considered to be building-integrated, if the **PV modules form a construction product** providing a function as defined in the European Construction Product Regulation CPR 305/2011. Thus the BIPV module is a **prerequisite for the integrity** of the building's functionality. If the integrated PV module is dismantled (in the case of structurally bonded modules, dismantling includes the adjacent construction product), the PV module would have to be replaced by an appropriate construction product.

SUBTASK C

C.0 Definition discussion

International definition of »BIPV«

BIPV is a construction product (with photovoltaic functionality).
Construction product = defined in the general CPR of the EU:

*‘Construction product’ means any **product or kit** which is produced and placed on the market for incorporation in a **permanent manner in construction** works or parts thereof **and the performance of which has an effect on the performance of the construction works** with respect to the basic requirements for construction works.*

SUBTASK C

C.0 Definition discussion

We must be sure that most of the selected examples from STA are covered by the definition also if “*Aesthetical issues*” are not fully covered within this ST

We agree for STC to follow a performance base approach to have a more specific focus.

When a list of STA examples will be available?

TODO:

- Please send us your examples that do not fall into the definition and from which extent!
- HRW and FF will prepare a draft of the report by mid of December,
answers by participants by February 2017

SUBTASK C

C.1 Analysis of user needs for BIPV & BIPV functions

What the user expect from BIPV (starting from CPR requirements).

In the report we should differentiate by accepted internationally recognized user need and national important one.

We agree not to split the need in product category.

TODO:

- HRW ("subject to funding") by mid of December sent a draft of C1 and ask for contribution from the different partners.

SUBTASK C

C.2 BIPV technical requirements overview

Systematic overview on the regulations, standards and requirements with relevance for BIPV

Excel tabel was created

Requirements (CPR)

Performances

EN50583 answer

Missing part/tests

Added by partners

(Japen/Spain)

Requirement	Standard	Compliance	Notes
Falling of module or parts	Product and system		To be added as design requirement
Safety under shading	Product		Japanese committee
Fire due to abnormal heating of junction box	Product		Covered by IEC61215 7.8 (Hot Spot Temperature)
Robustness of terminations test	Product	IEC 61215, §10.14	covered by (F)
Wet leakage current test	Product	IEC 61215, §10.15	covered by (F)
Bypass diode thermal test	Product	IEC61215	missing bypass diode thermal covered by (F)
Glazing and airborne sound insulation	Product and system	EN 12758	
g value of glazing	Product	EN 50583-1, Annex A.2	missing optical properties
Addition of calculation method for solar factor of glass-glass PV modules	Product		Tecnalia
Luminous and solar characteristics of glazing	Product and system	EN 410	
Thermal transmittance (U value) of glazing	Product	EN 673	ISO12631
Slight modification to EN 673 to calculate equivalent conductivity for PV glass-glass	Product		Tecnalia
Thermal transmittance (U value) of glazing	Product	EN 674	missing some energy economy and heat retention properties
Thermal transmittance (U value) of glazing	Product	EN 675	
Thermal transmittance (U value) of curtain walling	Product and system	EN 13947	
Thermal and visual comfort due to blinds and shutters	Product and system	EN 14500	
Deterioration of heat insulation property due to PV cell	Product		Japanese committee
Core sustainability rules for	Product		

SUBTASK C

C.2 BIPV technical requirements overview

Systematic overview on the regulations, standards and requirements with relevance for BIPV

Excel tabel was created

Make a third round of the excel table asking to fill in further existing standard that may be useful for BIPV product and application. (answer by **February 2017**).

TODO:

- HRW by end of November sent the excel file and ask for contribution from the different partners (Feb 2017).

SUBTASK C

C.3 Multifunctional BIPV evaluation

- ❑ Identify groups of products and applications based on Subtask A
- ❑ Define evaluation schemes for the groups of applications
- ❑ Specify test and calculation methods for the different groups

When a list of STA examples and products will be available?

TODO:

- Collect examples from ST-A by STL by February 2017

SUBTASK C

Proposed revised schedule

Postpone the final dates

- ❑ of C.1 to June 2017
- ❑ of C.2 to December 2017
- ❑ of C.3 to June 2018
- ❑ of C.4 to June 2019 (hoping that the Task period will be extended)

SUBTASK C: participants and observers to date

Name	Email address	Country	Participation confirmed	Funding confirmed
Karl Berger	karl.berger@ait.ac.at	Austria		
Gabriele Eder	Gabriele.eder@ofi.at	Austria		
Dieter Moor	dieter.moor@ertex-solar.at	Austria		
Philipp Rechberger	rechberger.philipp@asic.at	Austria	yes	yes
Astrid Schneider	Astrid.schneider@ait.ac.at	Austria	yes	yes
Gerald Steinmaurer	steinmaurer.gerald@asic.at	Austria		
Eszter Voroshazi	eszter.voroshazi@imec.be	Belgium		
Veronique Delisle	Veronique.delisle@canada.ca	Canada	yes	yes
Simon Boddaert	Simon.boddaert@cstb.fr	France		
Francoise Burgun	francoise.burgun@cea.fr	France		
Jérôme Payet	jerome.payet@cycleco.eu	France		
Maria Roos	maria.roos@ives.fraunhofer.de	Germany		
Silke Krawietz	seta@gmx.net	Germany		
Christof Erban	christof.erban@sunovation.de	Germany		
Helen Rose Wilson	helen.rose.wilson@ise.fraunhofer.de	Germany	yes	no
Stefano Avesani	Stefano.avesani@eurac.edu	Italy		
Laura Maturi	laura.maturi@eurac.edu	Italy		
Francesca Tilli	francesca.tilli@gse.it	Italy		
Seiji Inoue	seiji-inoue@agc.com	Japan	yes	yes
Hisashi Ishii	hisashi.ishii@lixil.com	Japan		
Michio Kondo	Michio.kondo@aist.go.jp	Japan		
Hiroko Saito	h.saito@pvtec.or.jp	Japan		
Jae-Yong Eom	jyum@eagon.com	Korea		
Ahn Jung Hyuk	jhahn@eagon.com	Korea		
Jun-Tae Kim	jtkim@kongju.ac.kr	Korea		
Chris Geurts	chris.geurts@tno.nl	Netherlands		
Gerard de Leede	gleede@heijmans.nl	Netherlands		
Ganesan Palaniswamy	ganesan.palaniswamy@tatasteel.com	Netherlands		
Esther Philipse	estherphilipse@aerspire.com	Netherlands		
Roland Valckenborg	valckenborg@seac.cc	Netherlands		
Ana Belén Cueli	abcueli@cener.com	Spain		
Maidor Machado	maider.machado@tecnalia.com	Spain		
Nuria Martin	Nuria.martin@ciemmat.es	Spain	yes	no
Eduardo Román Medina	Eduardo.roman@tecnalia.com	Spain		
Peter Kovacs	peter.kovacs@sp.se	Sweden	yes	yes
Bengt Stridh	bengt.stridh@se.abb.com	Sweden		
Francesco Frontini	Francesco.frontini@supsi.ch	Switzerland	yes	yes