



## PV Taiwan TC Chapter Meeting Summary and Minutes

Taiwan Fall Standards Meeting 2017

Wednesday, October 18, 2017, 14:00 – 16:00

Meeting Room 534, Taipei Nangang Exhibition Center, Taipei City, Taiwan

### TC Chapter Announcements

Next TC Chapter Meeting

January 31, 2018, 11:00 – 14:00

Venue: Hsinchu, Taiwan

### Table 1 Meeting Attendees

**Co-Chairs:** B.N. Chuang (ITRI)

**SEMI Staff:** Dean Chang

<i>Company</i>	<i>Last</i>	<i>First</i>	<i>Company</i>	<i>Last</i>	<i>First</i>
TSEMC	Chen	Joeng-Shein	King Design	Shih	Jason
ITRI	Wu	Teng-Chun	NCTU	Huang	Der-Ray
ITRI	Wu	Hung-Sen	TUV SUD Asia Ltd.	Wu	Louis
ITRI	Hsu	Shu-Tsung	TSEC	Yu	CY
ITRI	Long	Yean-San	WINAICO	Wang	CL

**Table 2 Leadership Changes**

<i>WG/TF/SC/TC Name</i>	<i>Previous Leader</i>	<i>New Leader</i>
Organic and Dye Sensitized Solar Cell and Perovskite solar cell TF	Jason Shin (King Design) (Step down)	None
Organic and Dye Sensitized Solar Cell and Perovskite solar cell TF	Y. M. Yang (NCKU) (Step down)	None
Organic and Dye Sensitized Solar Cell and Perovskite solar cell TF	H. S. Koo (MUST) (Step down)	None
Organic and Dye Sensitized Solar Cell and Perovskite solar cell TF	C. G. Wu (NCU) (Step down)	None
Organic and Dye Sensitized Solar Cell and Perovskite solar cell TF	S. H. Tu (TDP) (Step down)	None
Organic and Dye Sensitized Solar Cell and Perovskite solar cell TF	C. S. Tsao (INER) (Step down)	None
PV Package Performance TF	Iven Chou (Eterbright Solar) (Step down)	None
Building Integrated Photovoltaic (BIPV) TF	Iven Chou (Eterbright Solar) (Step down)	None
Building Integrated Photovoltaic (BIPV) TF	K. T. Lee (King Design) (Step down)	None
Building Integrated Photovoltaic (BIPV) TF	K. H. Ke (Grain System) (Step down)	None
CIGS Solar Cell TF	Jason Shin (King Design) (Step down)	None
CIGS Solar Cell TF	H. S. Koo (MUST) (Step down)	None

**Table 3 Committee Structure Changes**

<i>Previous WG/TF/SC Name</i>	<i>New WG/TF/SC Name or Status Change</i>
None	

**Table 4 Ballot Results**

<i>Document #</i>	<i>Document Title</i>	<i>Committee Action</i>
6071	New Standard: Test Method for Polymer Foil Dependent Discoloration of Silver Fingers on PV Modules	<b>Failed</b> Re-ballot in Cycle 8-17

#1 **Passed** ballots and line items will be submitted to the ISC Audit & Review Subcommittee for procedural review.

#2 **Failed** ballots and line items were returned to the originating task forces for re-work and re-balloting or abandoning.

**Table 5 Activities Approved by the GCS between meetings of the TC Chapter**

<i>#</i>	<i>Type</i>	<i>SC/TF/WG</i>	<i>Details</i>
None			

**Table 6 Authorized Activities**

Listing of all revised or new SNARF(s) approved by the Originating TC Chapter.

#	Type	SC/TF/WG	Details
TBD	SNARF	PV Reliability Test Method TF	Reapproval of SEMI PV38-0912, Test Method for Mechanical Vibration of c-Si PV cells in Shipping Environment
TBD	SNARF	PV Reliability Test Method TF	Reapproval of SEMI PV23-1011, Test Method for Mechanical Vibration of Crystalline Silicon Photovoltaic (PV) Modules in Shipping Environment
TBD	SNARF	PV Reliability Test Method TF	New Standard: Test Method for Non-Uniform Wind Loads Test for PV Module
TBD	SNARF	Organic and Dye Sensitized Solar Cell and Perovskite solar cell TF	New Standard: Test Method for Current-Voltage (I-V) Performance Measurement of Perovskite Solar Cell (PSC), Part 1: Standard Testing Condition (STC)

#1 SNARFs and TFOFs are available for review on the SEMI Web site at:

<http://downloads.semi.org/web/wstdsbal.nsf/TFOFSNARF>

**Table 7 Authorized Ballots**

#	When	TF	Details
6071A	Cycle 8-17	PV Reliability Test Method TF	New Standard: Test Method for Polymer Foil dependent Discoloration of Silver Fingers on PV modules
TBD	Cycle 8-17	PV Reliability Test Method TF	Reapproval of SEMI PV38-0912, Test Method for Mechanical Vibration of c-Si PV cells in Shipping Environment
TBD	Cycle 8-17	PV Reliability Test Method TF	Reapproval of SEMI PV23-1011, Test Method for Mechanical Vibration of Crystalline Silicon Photovoltaic (PV) Modules in Shipping Environment

**Table 8 SNARF(s) Granted a One-Year Extension**

#	TF	Title	Expiration Date
None			

**Table 9 SNARF(s) Abolished**

#	TF	Title
5560	Building Integrated Photovoltaic (BIPV) TF	New Standard: Classification of Building Integrated Photovoltaic (BIPV)
5740	PV Reliability Test Method TF	New Standard: Test Method of Electrochemical Corrosion for PV Module

**Table 10 Standard(s) to receive Inactive Status**

Standard Designation	Title
None	

**Table 11 New Action Items**

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
1	Dean Chang	Process new SNARFs for five-year due standards: PV38-0912 and PV23-1011 and submit them for Cycle 8-17 vote

**Table 12 Previous Meeting Action Items**

<i>Item #</i>	<i>Assigned to</i>	<i>Details</i>
1	TF Leaders	Reduce TF leaders in each TF. There are too many TF leaders in Taiwan TC Chapter.

## 1 Welcome, Reminders, and Introductions

Committee Co-Chair B.N. Chuang (ITRI) called the meeting to order at 14:00. The meeting reminders on antitrust issues, intellectual property issues and holding meetings with international attendance were reviewed. Attendees introduced themselves.

**Attachment:** SEMI Standards Required Elements

## 2 Review of Previous Meeting Minutes

The TC Chapter reviewed the minutes of the previous meeting.

**Motion:** Approve previous meeting minute

**By / 2<sup>nd</sup>:** Hung-Sen Wu (ITRI) / Jason Shih (King Design)

**Discussion:** After review, all TC members agreed to approve it

**Vote:** 10-0-0 Motion passed

**Attachment:** PV TC Meeting Minutes\_20170726

## 3 Liaison Reports

### 3.1 PV Japan TC Chapter

Dean Chang (SEMI TW) reported for the PV Japan TC Chapter. Of note:

**Action Item:**

- New standard published on August 3, 2017 as PV79-0817 (New Standard: Test Method for Exposure Durability of PV Cells to Acetic Acid Vapor)
- Next TC Meeting will be held on April 6, 2018 at SEMI Japan Office, Tokyo, Japan

**Attachment:** 170922\_LiaisonReport\_JA\_PV&PVM\_r1

### 3.2 PV China TC Chapter

Dean Chang (SEMI TW) reported for the PV China TC Chapter. Of note:

**Action Item:**

- 1 new SNARF; 1 reapproval SNARF; 5 ballots failed committee review and return to TF; Authorized 9 ballots in Cycle 8-17; Authorized 1 ballot in Cycle 9-17; Authorized 4 ballots go to A&R
- 3 Chinese Version of Standards Requests for Publish: SEMI PV64-0715, SEMI PV50-0114, and SEMI PV 74-0216
- Next TC Meeting will be held on May 26, 2018 at Shanghai

**Attachment:** China PV&PVM Committee Chapter Liaison Report20171017

### 3.3 SEMI Staff Report

Dean Chang (SEMI TW) gave the SEMI Staff Report. Of note:

**Action Item:**

- Introduction of TC 82 perspectives, activities and plans
- Introduction of 5 Year Revision Process
- Purchase records for SEMI PV Standards which were proposed by Taiwan region

**Attachment:**

- 01 TC82 for SEMI sep17
- 5 Year Review Process
- PV Purchase Record

## 4 Ballot Review

NOTE 1: TC Chapter adjudication on ballots reviewed is detailed in the Audits & Review (A&R) Subcommittee Forms for procedural review. The A&R forms are available as attachments to these minutes. The attachment number for each balloted document is provided under each ballot review section below.

- Propose Doc. 6071 “New Standard: Test Method for Polymer Foil dependent Discoloration of Silver Fingers on PV modules” to re-ballot in Cycle 8-17 in view that it was failed in Cycle 7-17

**Motion:** Approve Doc.6071 to be re-balloted for Cycled 8-17 vote

**By / 2<sup>nd</sup>:** Hung-Sen Wu (ITRI) / Jason Shih (King Design)

**Discussion:** After review, all TC members agreed to approve it

**Vote:** 10-0-0 Motion passed

## 5 Task Force Reports

### 5.1 Organic and Dye Sensitized Solar Cell and Perovskite solar cell Task Force

Teng-Chun Wu (ITRI) reported for the Organic and Dye Sensitized Solar Cell and Perovskite solar cell Task Force. This report contained information on:

- Doc. 5979 “New Standard: Specification of indoor lighting simulator requirements for emerging PV” passed Technical Review on August 18, 2017

- Feedbacked the comment of one PV member and applied for New SNARF “New Standard: Test Method for Current-Voltage (I-V) Performance Measurement of Perovskite Solar Cell (PSC), Part 1: Standard Testing Condition (STC)” for document number
- Jason Shin (King Design), Y. M. Yang (NCKU), H. S. Koo (MUST), C. G. Wu (NCU), S. H. Tu (TDP), and C. S. Tsao (INER) stepped down from Organic and Dye Sensitized Solar Cell and Perovskite solar cell Task Force leader positions

## 5.2 PV Package Performance Task Force

Teng-Chun Wu (ITRI) reported for the PV Package Performance Task Force. This report contained information on:

- Iven Chou (Eterbright Solar) stepped down from PV Package Performance Task Force leader position

## 5.3 Building Integrated Photovoltaic (BIPV) Task Force

Teng-Chun Wu (ITRI) reported for the Building Integrated Photovoltaic (BIPV) Task Force. This report contained information on:

- Abolished Doc. 5560 “New Standard: Classification of Building Integrated Photovoltaic (BIPV)”
- Iven Chou (Eterbright Solar), K. T. Lee (King Design), and K. H. Ke (Grain System) stepped down from the Building Integrated Photovoltaic (BIPV) Task Force leader positions

## 5.4 PV Reliability Test Task Force

Hung-Sen Wu (ITRI) reported for the PV Reliability Test Task Force. This report contained information on:

- Feedbacked the comment of one PV member and applied for New SNARF “New Standard: Test Method for Non-Uniform Dynamic Mechanical Loads Test for PV Module”
- Abolished Doc. 5740 “New Standard: Test method of electrochemical corrosion for PV module”

## 5.5 CIGS Solar Cell Task Force

Der-Ray Huang (NCTU) reported for the CIGS Solar Cell Task Force. This report contained information on:

- Jason Shin (King Design) and H. S. Koo (MUST) stepped down from CIGS Solar Cell Task Force leader positions

## 6 Old Business

6.1 One PV member, Bengt Jaeckel, suggested New SNARFs (New Standard: Non-Uniform Wind Loads Test for PV Module and New Standard: Test Method for Current-Voltage (I-V) Performance Measurement of Perovskite Solar Cell (PSC), Part 1: Standard Testing Condition (STC)) to link with IEC TC 82

## 7 New Business

7.1 Reapprove five-year standards: PV38-0912 and PV23-1011 to go to Cycle 8-17 ballot without revisions

7.2 Submit Doc. 6071 to re-ballot in Cycle 8-17



## 8 Next Meeting and Adjournment

The next meeting is scheduled for January 31, 2018 in Hsinchu. See <http://www.semi.org/standards-events> for the current list of events.

Adjournment was at 16:00.

Respectfully submitted by:

Dean Chang

Senior Executive Consultant

SEMI Taiwan

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Minutes tentatively approved by:

B.N. Chuang (ITRI), Co-chair	November 23, 2017
Joeng-Shein Chen (TSEMC), Co-chair	November 23, 2017

**Table 13 Index of Available Attachments<sup>#1</sup>**

<i>Title</i>	<i>Title</i>
1_SEMI Standards Required Elements	3.3.1_01 TC82 for SEMI sep17
2_PV TC Meeting Minutes_20170726	3.3.2_5 Year Review Process
3.1_170922_LiaisonReport_JA_PV&PVM_r1	3.3.3_PV Purchase Record
3.2_China PV&PVM Committee Chapter Liaison Report20171017	

#1 Due to file size and delivery issues, attachments must be downloaded separately. A .zip file containing all attachments for these minutes is available at [www.semi.org](http://www.semi.org). For additional information or to obtain individual attachments, please contact [SEMI Staff Name] at the contact information above.