PVQAT Chinese Group Report

China General Certification Center
PVQAT Chinese Group Secretariat

Table of contents

PVQAT report

PVQAT Chinese Group

Meeting report

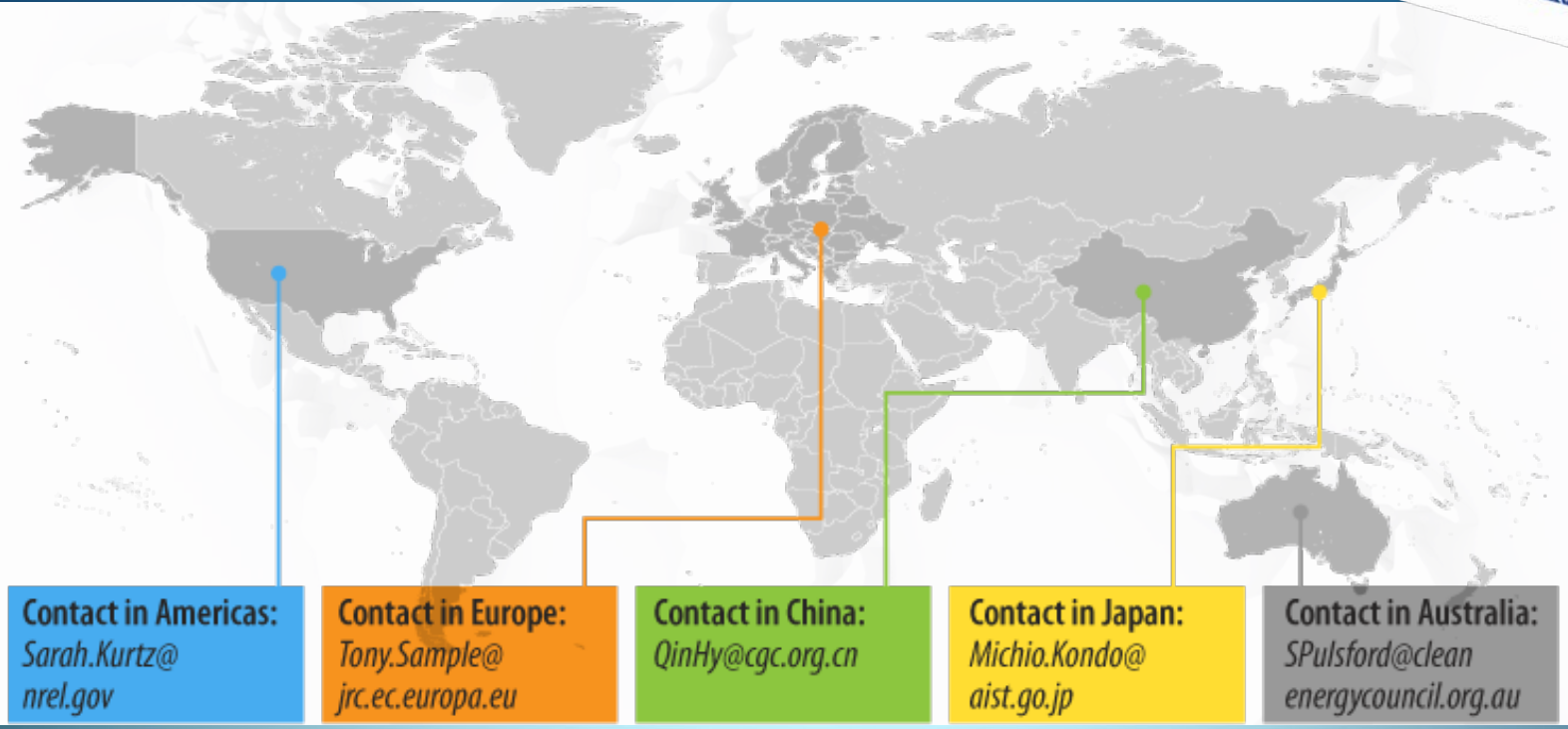
Meeting Summarizes

Next steps

PVQAT Chinese Group

- China is one of the PVQAT regional group.
- It was formally established on 21 June 2014 (initial conference in Beijing).
- 11 Chinese Task group leaders formally joined in PVQAT International Group.
- Sarah Kurtz(NREL) and Liang Ji (UL) joined in the initial conference as US Group representatives.

PVQAT Chinese Group



PVQAT initial conference Jun-21-2014 Beijing

Table of contents

PVQAT report

PVQAT Chinese Group

Meeting report

Meeting Summarizes

Next steps

Meeting Report (Chinese Group)

Jun 21 2014
Chinese group established

Jul
TG1/3/5/10 initial meeting

Aug
TG4/7 initial meeting

Sept
TG10 second meeting/TG5 test plan draft

Oct
TG2 initial meeting

Nov
TG7 second meeting

Dec 2014
TG5 draft test plan discussed with International group

Apr 14 2015
TG10 Group meeting

Apr 21 2015
TG3 Group meeting

Table of contents

PVQAT report

PVQAT Chinese Group

Meeting report

Meeting Summarizes

Next steps

Meeting Summarizes

- TG1: Working on IEC/TS 62941;
- TG2: Test plan (thermal cycle experiment) and task breakdown;
- TG3: Discuss PID test method and potential test plans, NWIP (PID);
- TG5: Ready to test samples from NREL;
- TG10: Discuss connector failure mode and simulation, plan to submit NWIP (Connector test);
- TG11:PV System certification/IEC 61724 draft;

Meeting Summarizes

- PVQAT Progress review with International Group at SNEC Expo(Shanghai, Apr 27-30-2015)
- Discussed with TG1/3/4/5/6/7/10/11 leaders

Table of contents

PVQAT report

PVQAT Chinese Group

Meeting report

Meeting Summarizes

Next steps

Next steps

Task Group	2014 status	2015 goal	2016 goal
1. Manufacturing Guideline	CD completed	Publish draft and start using in factory inspections	Revise document to reflect feedback
2. Thermal and mechanical fatigue	Some publications completed	Submit NWIP for leg #1, including diode testing (TG4)	Complete leg #1 test standard
3. Humidity, T, V	The CD for the overall document is being circulated for review - will be submitted soon	Submit NWIP for leg #2, including results from UV tests	Complete leg #2 test standard
4. Diodes, shading, reverse bias	Multiple documents have been submitted	Evaluate additional tests. Submit NWIP on thermal runaway to IEC; Define 50 cycles with reverse bias current for inclusion with TG2	Finish documents that are in progress. Further work on thermal endurance tests may result in NWIP
5. UV, T, humidity	Large experiment is collecting data	Define UV for test leg #2 and include in NWIP submission and define conditions for materials test and submit NWIP	Complete leg #2 test standard; follow up on UV test for materials

Next steps

6. Communication			
7. Snow/Wind	Chinese TG7 has been organized		
8. Thin film	Discussion groups organized	Compile Outdoor Data	Try to correlate outdoor data with accelerated tests
9. CPV	IEC 62925 submitted as CD to differentiate thermal fatigue durability	Publish IEC 62925	Identify other needed tests
10. Connectors - junction boxes	Began identifying failure modes	Plan to submit a NWIP on reliability testing for connectors	Follow up on NWIP
11. PV System Verification	Created System, REMC, and basic rules	Complete formation of national committees, definition of scope and rules of procedure so that system audits can begin	Published procedures and issue first certificates
12. Soiling	Collected names of volunteers (~80) with four areas	Add participation regarding cleaning solutions, academics and CSP; begin work on identifying the criteria for the cleaning, durability of ARC; modeling for soiling rates using a more physical	Begin to submit NWIP based on results in 2015

鉴衡认证
CHINA GENERAL CERTIFICATION

Thanks for your attention！

PVQAT 中国工作组汇报

鉴衡认证中心
PVQAT 中国组秘书处

目录

PVQAT 汇报

PVQAT 中国组

会议历程

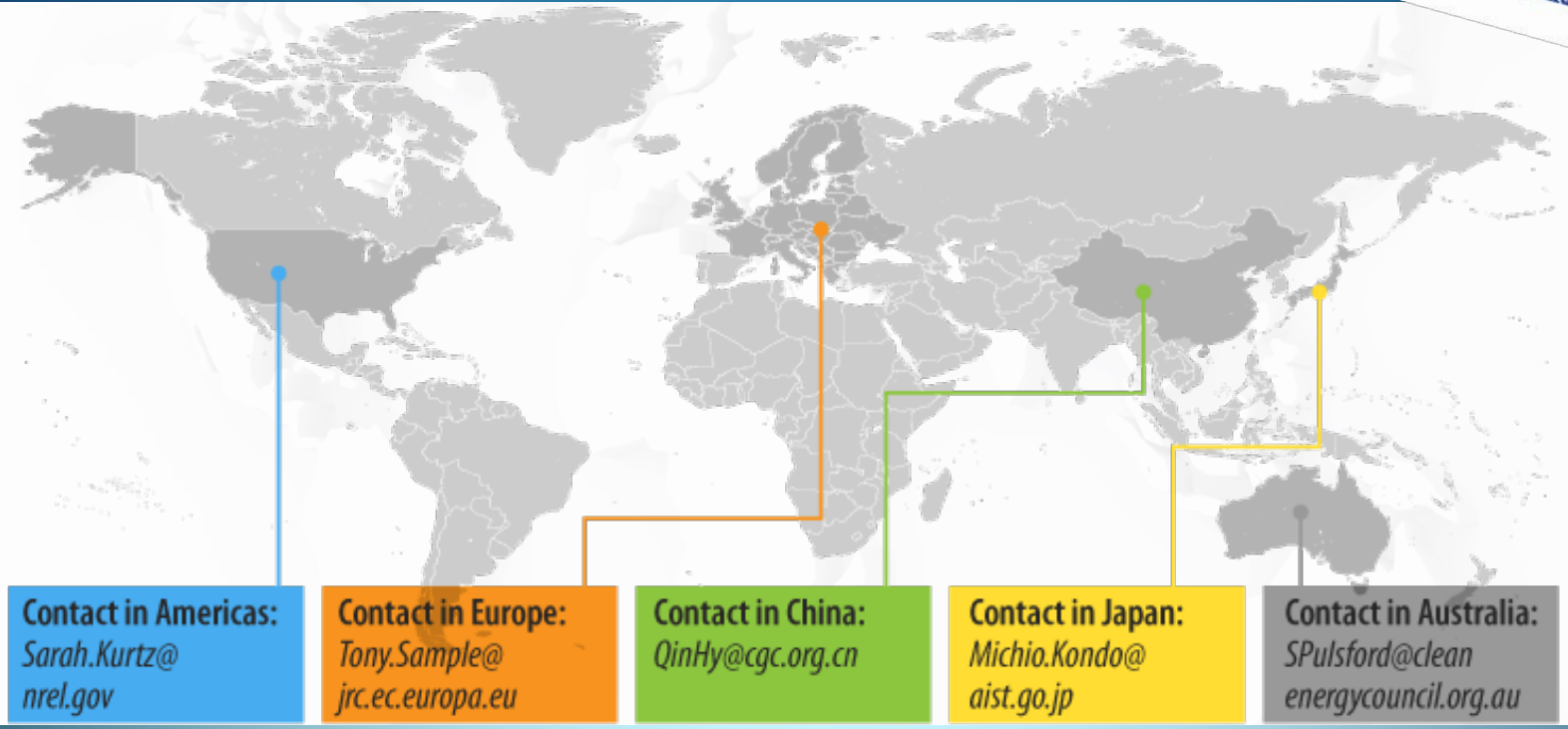
会议总结

下一步计划

PVQAT 中国组

- 中国工作组是PVQAT国际组织的一个区域分支组织；
- 中国组正式成立于2014年6月21日，在北京召开首次成立大会；
- 11个中国工作组组长正式加入PVQAT；
- Sarah Kurtz（美国可再生能源实验室）和季良俊（美国UL）作为美方代表参加了此次成立大会。

PVQAT 中国组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PVQAT中国组成立大会，2014年6月21日 北京

目录

PVQAT 汇报

PVQAT 中国组

会议历程

会议总结

下一步计划

会议历程

6 - 21 2014
中国组正式建立

7月
TG1/3/5/10
首次会议

8月
TG4/7
首次会议

9月
TG10 二次会议/讨论测试草案

10月
TG2
首次会议

11月
TG7
二次会议

12月 2014
TG5 与国际组讨论测试方案

4 - 14 2015
TG10
工作组会议

4 - 21 2015
TG3
会议

目录

PVQAT 汇报

PVQAT 中国组

会议历程

会议总结

下一步计划

会议总结

- TG1: 参与制定 IEC/TS 62941 （光伏组件设计鉴定与定型可靠性增强指南）；
- TG2: 确定测试方案（热循环测试）与组员测试方案分解；
- TG3: 讨论PID测试方法与方案，计划向IEC提交新工作项目提案；
- TG5: 准备接收NREL发送的EVA/背板测试样品，开展测试；
- TG10: 讨论连接器失效模式并研究失效模拟方法，计划向IEC提交新工作项目提案；
- TG11: 光伏系统认证/参与制定IEC 61724 草案;

会议总结

- 2015年4月27至30日，在上海SNEC展会上与国际组讨论PVQAT 中国组的工作进度；
- 与 TG1/3/4/5/6/7/10/11 工作组组长会面讨论工作进度。

目录

PVQAT 汇报

PVQAT 中国组

会议历程

会议总结

下一步计划

下一步计划

工作组	2014 状态	2015 目标	2016 目标
1. 生产制造导则	IEC标准CD稿	发布草案与工厂审查	修订文件并回复意见
2. 热力与机械疲劳	完成部分论文发表	提交新工作项目提案的 #1测试程序，包含二极管测试 (TG4)	完成 #1测试程序标准
3. 温湿度与电压	传阅CD稿	提交新工作项目提案的 #1测试程序，包含紫外测试	完成 #2测试程序标准
4. 二极管、遮挡与反向偏压	已提交多份技术文件	评估附加测试，提交热逸散测试提案至IEC；详见TG2	完成已经开展的热逸散测试文件，未来开展耐热测试；
5. 温湿度与辐照	开展大规模试验并收集数据	确定#2测试程序中的紫外辐照，提交新工作项目提案，确定材料测试的条件。	完成 #2测试程序标准 继续材料的紫外测试

下一步计划

6. 讯息交流			
7. 风雪载荷	成立中国工作组		
8. 薄膜	讨论工作组如何组织	收集户外数据	关联户外数据与实验数据
9. 聚光组件	IEC 62925 CD稿提交	发布 IEC 62925	确认其他可能的测试
10. 连接器-接线盒	识别失效模式	计划提交连接器可靠性测试提案	继续提案的工作
11. 光伏系统认证	建立系统、IECRE REMC和基本程序与实施规则	组建国家技术委员会，确定工作范围与系统认证实施规则	发布认证程序，发放首张系统认证证书
12. 沙尘与污物腐蚀	召集成员	根据不同研究方向参加，识别各研究方向的通过标准，沙尘与污物对发电性能影响建模	基于2015的结果提交新工作项目提案

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感谢您的关注！