

## **PV Module Reliability Workshop – Discussion Notes**

**Tuesday, February 24, 2015**

### **CPV Breakout Session**

- Concentrator cells are tested before selection for incorporation into a module:
  - Cell testing with a simulator may be done at the wafer level, verifying uniformity without measuring every cell.
  - Dark IV and EL (defects in the cells) testing is also used for cell-level screening.
- EL can be useful for verifying the optical alignment (look at emissions from cells coming out of the optics).
- Simulator testing of cells might be combined with EL testing of optics to gain confidence at module level with substantial verification.
- *IEC TS 62941: Guideline for increased confidence in PV module design qualification and type approval* has some elements that are useful for new product introduction, but many of the elements described in IEC TS 62941 are not relevant to new product launches.
- CPV performance needs to be verified at the system level; confidence at the module level by itself is meaningless, as observed by some customers.