Dodgy Solar Installations
SOLAR PV LESSONS

ZERO CARBON BUILDINGS GROUP – LEEDS 18/11/2019
Mathew Tulley & Andrew Hodchild

Matthew Tulley
- 2 recent solar installations by IKEA then Andrew
- Quality problems with IKEA x 2. Andrew sorted 1, MT sorted 1

Andrew Hodchild
- 1989 Joined AECB
- From 1997 Solar Hot Water Systems
- From 2003 Solar PV
- From 2006 Biomass
- Now mostly carrying out repairs and servicing
FIT changes give big spike in installs

- Thousand installs/month
- FIT rate (0-4kw newbuild)

2010 to 2019
Installation companies

- Uncertainty gives limited training and short-life businesses
- Crew is 1 electrician & 2 ‘roofers’
- Standards written by electricians, not roofers. 2/140 pages on fixing
- Lowest bid, uneducated customers
- Slow leaks not obvious (and sealants may age & embrittle)
- 2016 MIS:012 finally came in. [LINK](#)
- *Popular MIS:012 mounting system do not seem to meet the requirements of MIS:012*
Fixing to a roof

- Wind loads can be huge, flexing fixings. More storms in future
- Roof penetration for SVP = metal plate and elastomer collar
- Hanger bolt plus mastic was low cost option
- Brackets and fitting to tiles on standard tiles
- Pillar and Unirack with flashing for Grey Slates
Grey slates

- Large tiles, thick
- Post, Flash, Unistrut
Standard tiles

- Bent brackets to fit
- Trim toe of tile
Poor wiring
Poor fixing
Hanger bolts (now not allowed)
Another tidy job

No load imposed on roof cover and no silicon for weather tightness
Future Installs

- 3000/month now,
- 50,000/month to get 25% houses fitted by 2030
- Customer education (Get up on the roof!)
- Educate surveyors for ‘Housebuyers survey’
- The next ‘PIP implants’ scandal?

- Get ready for the next green push – Training & Verification.