



PHOTOVOLTAICS: EXECUTIVE SUMMARY

- ❑ The PV sector has now proved sceptics wrong and is fully accepted as a long-term viable pillar in the future energy landscape; the industry hit \$100bn in sales in 2016⁽¹⁾
- ❑ PV looks set to penetrate ever-lower irradiation geographies, due to:
 - cost curve (scale, higher efficiencies via advanced processes) – driving grid parity
 - improving economics for energy storage – obviating the need for production-based incentives
- ❑ PV demand growth continues to exceed expectations (currently driven by China), but structural over-supply limits the duration of any price stabilisations
- ❑ Sector consolidation (bankruptcies, restructuring, M&A) has eased but many companies remain vulnerable – severe excess capacity, stressed balance sheets, limited equity funding availability
- ❑ PV ‘sweetspots’ remain dynamic (manufacturers → developers → yieldco’s ...), ensuring that sustainably positive economic returns are elusive
- ❑ The holy grail for PV remains building-integrated (BIPV), an opportunity which will eventually accommodate greater diversity (less commoditisation?) in technologies and business models
- ❑ Energy/Power majors are now convinced of the long-term viability (and threat) of PV, but generally struggle to identify desirable value chain positionings for participation in the sector
- ❑ Potentially interesting (but risky) technology-oriented investment opportunities exist in balance-of-systems (incl. storage), manufacturing (tools), materials (perovskites, 3rd gen PV ...), new business models (financing, ownership), BIPV