

Glint and Glare Statement

Manor Farm
Sibthorpe
Newark
NG23 5PN

13.2kW Ground Mounted Solar PV System

Formation: 1 row of 44 panels in landscape

Technical Specifications of Canadian Solar PV Modules

Standard Solar PV modules typically have a reflection rate of around 30%. This reflection is mitigated by applying an anti-reflective coating (ARC) to the surface. These ARC coatings consist of a layer of specifically chosen thickness dielectric material which causes interference with the waves reflected from the ARC top surface and the semiconductor surfaces. The out-of-sync reflected waves result in **2% net reflected energy**. Please see appendix A for a diagram illustrating this.

For solar PV applications, the refractive index and thickness are chosen in order to minimize reflection for a wavelength of 0.6 μm . This wavelength is chosen since it is close to the peak power of the solar spectrum. Please see appendix B. The producers of the particular modules we are using – Canadian Solar – are committed to this issue and have conducted extensive research into anti-glare project evaluation in order to make their modules safe to use at sites where glare would be an extremely sensitive issue, such as airports. Canadian Solar has been developing its P5 (casted mono) technology and products for the past few years. The 22.28% record cell was fabricated by utilizing 157mmx157mm P5 multi-crystalline wafers and other production-ready technologies such as selective emitter, silicon oxide passivation, multi-layer anti-reflection coating, aluminum oxide backside passivation, and advanced metallization.

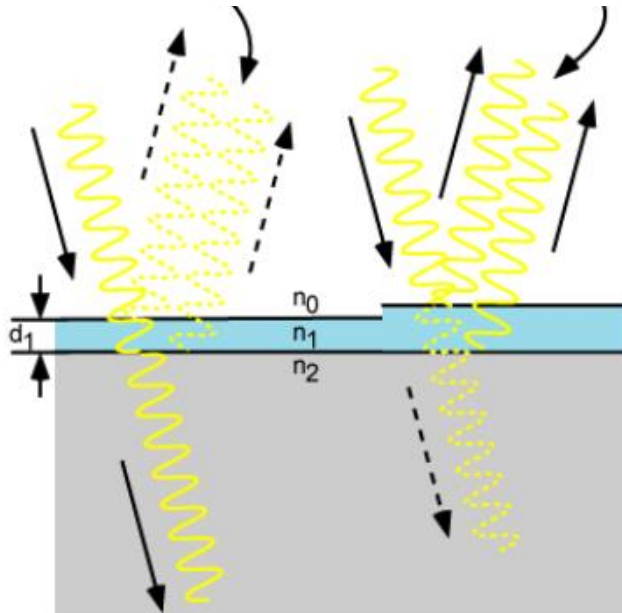
Today's panels reflect as little as 2% of the incoming sunlight. Evidence produced shows that this is slightly more than black asphalt, about level with bodies of water, and much below bare soil, vegetation, rooftops, glass, snow or metal.



We therefore feel that the panels will not cause any issues to drivers traveling on Forest Road or to tenants of surrounding buildings, especially with presence of existing fencing shielding the road further.

Appendix A

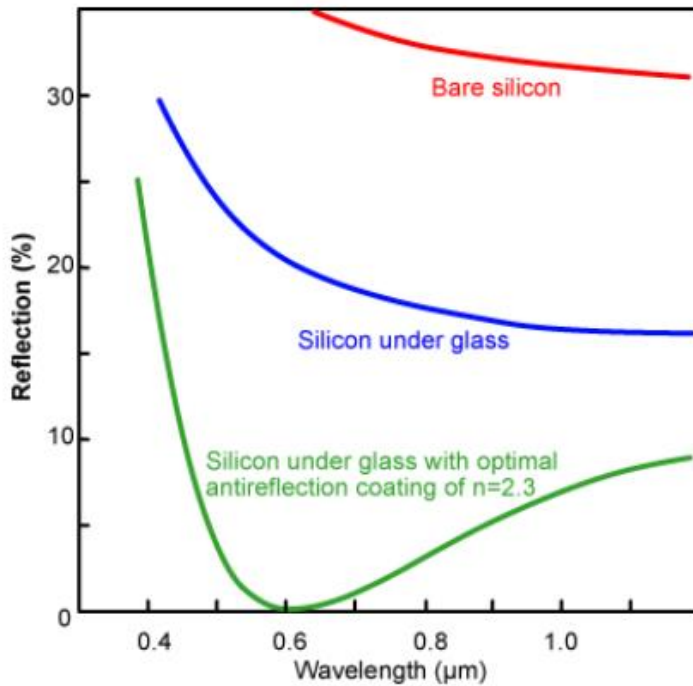
(a) destructive interference so no reflected wave (b) constructive interference so no reflected wave



All light transmitted in semiconductor

No light transmitted in semiconductor

Appendix B



Comparison of surface reflection from a silicon solar cell, with and without a typical anti-reflection coating