Creating sustainable change through education, communication and leadership

Publication Updates for Grid-Connected PV Systems Design and Installation, Eighth Edition

GSES® global sustainable energy solutions

Chapter 11

1. Section 11.3.4, page 210 – Shadow Length Behind Module Formula

Replace

$$\textit{Shadow length behind module} = \textit{Vertical height} \times \frac{\cos(\textit{azimuth angle})}{\tan(\textit{azimuth angle})}$$
$$= (\sin(\textit{tilt angle}) \times \textit{module length}) \times \frac{\cos(\textit{azimuth angle})}{\tan(\textit{azimuth angle})}$$

With

$$\textit{Shadow length behind module} = \textit{Vertical height} \times \frac{\cos(\textit{azimuth angle})}{\tan(\textit{altitude angle})}$$
$$= (\sin(\textit{tilt angle}) \times \textit{module length}) \times \frac{\cos(\textit{azimuth angle})}{\tan(\textit{altitude angle})}$$

Appendices

1. Formulae Summary, page 477 – Shadow Length Behind Module Formula

Replace

$$\textit{Shadow length behind module} = \textit{Vertical height} \times \frac{\cos(\textit{azimuth angle})}{\tan(\textit{azimuth angle})}$$
$$= (\sin(\textit{tilt angle}) \times \textit{module length}) \times \frac{\cos(\textit{azimuth angle})}{\tan(\textit{azimuth angle})}$$

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