Question and Answer Session for SAM PV Bifacial Model Webinar

Is the ground albedo a user-settable parameter?

Ground albedo can be set by the user on the Location and Resource page.

How do different ground albedo factor in calculation (e.g. Winter Spring and summer)?

You can set ground albedo by season using the monthly albedo inputs on the Location & Resource page.

Is it possible to edit dust losses in both front and rear side in bifacial module?

It is not currently possible to set soiling losses separately for the front and rear side. That is something we could consider adding in a future version. I will ask Nick to address whether or not soiling applies to rear side irradiance in our Q&A session.

Can I simulate concentrated PV thermal (CPC) output by SAM?

SAM has a high-concentration PV model for electricity generation but not a model for a compound parabolic concentrator.

Is it possible to let SAM sort the figures so it would not be like I have to copy to excel before sorting?

Thanks for that suggestion. We'll add it to our wish list. For now you'll have to export the data to a spreadsheet program to sort it.

Can you model different surface effect on the module? I mean the surface on the ground since shiny surfaces would reflect more sun's rays to the module and the reverse happens with other surfaces.

The albedo inputs on the Location and Resource input page are how you represent the reflective property of the ground surface under the array.

Is bifacial only modeled in Commercial option?

The bifacial model will be available in all financial model options for the detailed PV model, not just the Commercial model.

When will this be available in SAMSDK. Thank you!

The links provided on the slides includes a SAM SDK beta with the bifacial model.

Do mismatch losses include losses due to irradiance variability on the module's rear surface?

The mismatch losses shown in the loss diagram are a user input value on the Losses page. I do not believe mismatch is accounted for in the model that we've implemented but I can add that to the question list as well.

When entering in new modules on to SAM does it take in an account of the different short circuit STC value based on the bifacial gain?

This model assumes that the bifacial gain acts as additional irradiance so it would increase the current value based on module model prediction under those irradiance conditions. It would not increase the STC value since we assume that Isc at STC represents Isc at 1000 W/m ^{2} total irradiance (front and rear).

Will this be available in imperial units?

We do not currently have plans to change any of the units on inputs.