

In May of 2021, the FAA replaced the long-standing interim solar glare policy with a (final) policy that no longer restricts solar developed on airport property from creating glare visible to pilots. The policy explains that the new acceptance of glare visible to pilots is in recognition that pilots often experience glare during landing from bodies of water and that glare from solar is not meaningfully different.²⁶ The new policy does still prohibit on-airport PV systems from creating any glare visible in an air traffic control tower. While the FAA policy only applies to PV developed on airport property, it is reasonable to follow the same policy for PV plants sited near airport property.

The two closest airports in the National Plan of Integrated Airport Systems (“NPIAS”)²⁷ are the Quitman-Brooks County Airport (4J5) and the Valdosta Regional Airport (VLD). The Valdosta Regional Airport is about 15 miles southeast of the closest solar panel at Morven Sola and Quitman-Brooks County Airport is about 12 miles southwest of the closest panel, both of which are too far for glare from the site to have an impact. The Valdosta airport has an air traffic control tower but the Quitman-Brooks airport does not. Due to the lack of airports close to the proposed Morven facility, no glint and glare study is planned for this project. The author agrees that the project is not close enough to an airport for the project to pose any glare hazard to these airport or to warrant closer glare hazard analysis.

Sources for Further Reading on Solar Glare:

- National Renewable Energy Laboratory (NREL): [Research and Analysis Demonstrate the Lack of Impacts of Glare from Photovoltaic Modules](#), July 2018
- ForgeSolar: [PV Planning and glare analysis software help documentation](#), (accessed September 2022)

Noise

Solar panels are silent, but some of the other components of a PV system produce some sound, although they are rarely heard by anyone outside of the project fence. The loudest equipment is the inverters, but the transformers and tracking motors also make some sound. These numerous sources of sound are dispersed throughout the facility, but the physics of sound are such that these dispersed sources of sound are non-additive. For example, if there are 50 inverters spaced across a utility-scale solar facility and you are close enough to hear some inverter noise, you could turn off the 49 inverters farthest from you and you likely wouldn’t notice the difference between the sound from 1 inverter and the sound from 50 inverters. Even if two inverters are right next to each other and an even distance from you, the perceived volume of the sound coming from the two inverters is very similar to the sound from just one inverter. So, the potential for someone offsite to hear any sound generated inside a utility-scale PV project is determined by the closest and loudest source of sound. Thus, some simple analysis of the sound coming from the closest sources to a point of interest, such as a home, can effectively estimate the level of sound from the PV project at that location.

Before providing site-specific analysis of the potential for noise impacts from the Morven Solar project, it is useful to put the sound from the PV project in context. Our world is full of sounds, day and night, even in quiet rural areas, and any sounds from the PV project would be in concert with the existing sounds. The appropriate analysis metric is not if the sounds are audible, but if they are noticeable or bothersome, and US and international organizations have published guidance on this topic based on research on how sound impacts the public.

In 1972, the US passed the Noise Control Act, which required the EPA to define criteria for protecting the public health and wellbeing from noise interference. In response, the EPA developed guidance that included recommended sound levels limits

²⁶ “Federal Aviation Administration Policy: Review of Solar Energy System Projects on Federally-Obligated Airports”, <https://www.federalregister.gov/documents/2021/05/11/2021-09862/federal-aviation-administration-policy-review-of-solar-energy-system-projects-on-federally-obligated>

²⁷ The National Plan of Integrated Airport Systems (NPIAS) identifies nearly 3,310 existing and proposed airports that are included in the national airport system. The NPIAS contains all commercial service airports, all reliever airports, and selected public-owned general aviation airports. www.faa.gov/airports/planning_capacity/npias
