

Airport Land Use Commission

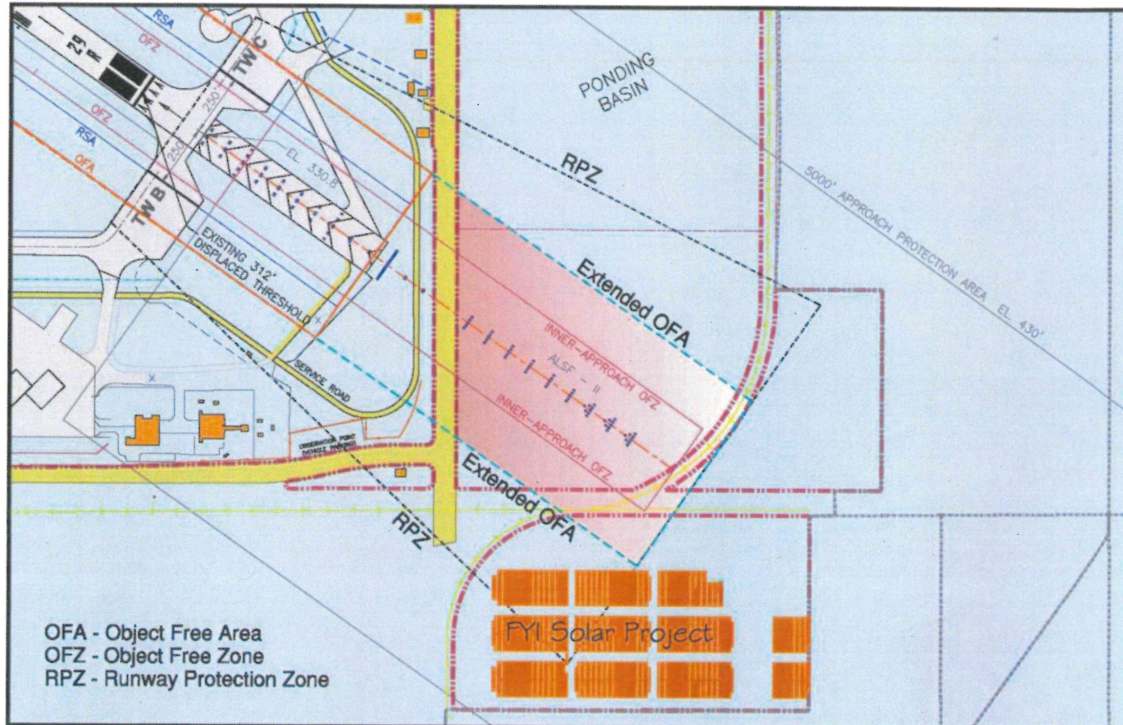
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NOV 20 2019

Agenda Item # 8A

Case Study #2 – A Unique Siting Example

Fresno Yosemite International Airport (FYI) – California



Source: City of Fresno

The City of Fresno constructed a 2.4 MW ground-mounted solar generation system in June 2008. The project consists of 11,700 Sharp solar panels on a single axis tracking system. The project was financed through a Power Purchase Agreement (PPA) with a private developer, and received state support in the form of rebates and utility long-term contract purchase requirements. The panels produce enough electricity to serve approximately 58% of the airport's annual average electricity load.

The airport discussed several different sites with the private developer and ultimately agreed to locate the project near the end of Runway 29 and adjacent to the Object Free Area but inside a portion of the Runway Protection Zone. This area, due to its location relative to air traffic, was unusable for any land uses requiring regular presence by people. In addition, unmanned structures were constrained to only low profile ones that did not penetrate into the approach zone. For those reasons, the land had little value which made it a very suitable location for a solar project.

Because leases must be reviewed by the FAA and the price of the lease must reflect a fair market value standard, leases of land potentially valuable for other development results in higher solar electricity prices. Locating solar on land with less value keeps the solar electricity price down making PPA prices both cost competitive for the airports and profitable for the private developer. As a result, land that would otherwise provide no value becomes a new revenue source to the airport. In general, the FAA does not recommend that airports locate solar projects in the RPZ. However, the FAA will review specific airport proposals like the one presented by Fresno on a case-by-case basis.

Case Study #3 – Evaluating Airspace Issues

Metropolitan Oakland International Airport – California



Oakland International's General Aviation Airport is host to a 756 kW ground-mounted system owned and operated by a private company, which sells power back to the Port of Oakland at a discount. The project consists of 4,000 fixed solar panels.

While the private developer was responsible as project applicant to file a 7460 Notice of Construction or Alteration with the FAA for airspace review, it was critical that airport personnel play an active role in assessing siting issues to ensure that the project would not produce a negative impact on airspace or aviation activities. The airport is knowledgeable about FAA airport design standards and flight operations, and works on a daily basis with FAA personnel in the Air Traffic Control Tower and ADO.

The three issues that Oakland evaluated during project siting were airspace penetration, radar interference, and glare. Because it was exploring a location along a service road near the GA runway, consideration of the imaginary surface extending out from the edge of Runway 6/27 was a critical consideration even with low profile panels. As a result, the panels were located approximately 400 feet from the runway avoiding any penetration of the imaginary surface of airspace. Second, the siting had to consider the location of the panels relative to Navaids. A radar system is located to the west of the proposed site. After consultation with the FAA, it was decided to preserve a 500-foot buffer from the radar to protect against any interference. Third, the airport discussed the potential for glare to impact the air traffic control tower. The FAA determined that, based on the available information, that glare would not cause a negative impact. However, to ensure that it could address any unforeseen problem, the FAA indicated that it would preserve the right to remove the project if a significant impact were to occur.

The project has been operational since November 2007 and there have been no reports of airspace impacts from radar or glare on the air traffic control tower or on pilots. One of the keys to a smooth approval process was close coordination between the airport, the solar developer, and the FAA from the earliest phases of the project.