April 2012

City of Tucson/SPG Solar
Problem Statement

Chien-Wei: Good morning Bruce!

Bruce: Hi Chien-Wei. This is Tim Christman from SPG Solar. SPG will be doing the installation on the building we talked about.
(to Tim) Chien-Wei has worked with us on a number of projects and since he teaches solar installers at Pima Community College we thought he'd find this new installation interesting.

Chien-Wei: So what are the details of the project?

Bruce: Well, as you know the city of Tucson has identified a number of buildings on which we want to place solar panels. As I understand it, the SPG engineers have determined that one of these buildings doesn't have a roof structure that can support the traditional solar panels that we're placing on other buildings around the city.

Tim: That's right. Even though it's supported by large wooden beams that look pretty strong, our detailed inspection shows the roof structure can't support the panels we're installing in other locations. It's an older building, maybe 40-50 years old, and it wasn't constructed with modern techniques.

Bruce: Also, since we're using the building to store surplus equipment, the city requires a non-penetrating system. We don't want to deal with the possibility of roof penetrations leading to water leaks.

Chien-Wei: What are the electrical requirements?

Tim: We need to produce at least 47 KW DC, but there should be plenty of room on the roof for that. We'll also have to upgrade service disconnect because it is in extremely poor condition