

Risk Management Considerations for Rooftop Solar Panels

Since the installation of rooftop solar panels is relatively new, there is little claims data. However, there are a number of risk issues to be addressed before proceeding with a rooftop solar panel installation.

Examine the Building's Structural Integrity

- Since the purpose of a roof is to protect the inside of the building, the roof has a lower load carrying capacity than the floors in the building.
- The structural integrity of the roof needs to be examined by a qualified professional engineer.
- The engineer will assess the risk of roof loading, combustibility (fire rating), wind up-lift, drainage and resistance to various natural elements (ice formation, hail).

Safeguard Against the Increased Risk of Fire

- Solar panels can increase the risk of fire due to potential electrical arcing, electrical malfunction or faulty installation.
- Establish a regular maintenance and inspection program. Document and keep all inspections.
- Keep dried leaves and debris from accumulating under the panels.
- Nearby trees should be trimmed back from the panels to minimize debris accumulation.
- Inspect the wiring to make sure it has not been chewed by rodents.

Use Due Diligence When Selecting a Contractor

- There are no current regulations regarding solar panel installation certification.
- To mitigate the risk of fire, solar panels should be installed by a certified electrical contractor with experience in this field.

Firefighting Accessibility

- Let your fire department know the details of the solar panel installation. In the event of fire, emergency

responders need to know that there could be two power disconnects in the building. These are normally located on the roof and at grade level.

- Firefighters need to have a revised plan to access these areas. There will be congestion on the roof which can restrict access and increase the risk of falls.
- The risk of roof collapse is greater due to the additional load of the panels and the fire burning under them. The fire department needs to not only have an incident plan, but also training for personnel in this specialized field.
- Provide your fire department with a copy of the electrical configurations.

Increased Risk of Falls Due to Roof Congestion

- All third party mechanical contractors should be made aware of the installation.
- Tie off points for maintenance personnel should be kept accessible.
- Revise your procedures or create new best practices for your maintenance staff.

Leasing Your Roof to a Third Party

Enter into a formalized agreement written by your legal counsel or have your legal counsel review any third party agreements before you sign.

- Have your insurance company review the indemnification clause and insurance provisions.
- Consider the following:
 - Who pays for the inspection and assessment of the existing roof and the structural capability as determined by a professional engineer?
 - Who pays for any required upgrades to the roof before installation?
 - Who warrants the upgrades – the contractor or the manufacturer?
 - What is the new life span of the roof?
 - If the roof is still under warranty, is the warranty impacted?

- Do you have any control over the installation and the selection of the contractor?
- Who assumes the cost of removing and re-installing the solar panels for any future roof maintenance or replacement?

Speak with Your Insurance Provider

Your new insurance exposures are:

- Increased risk of fire.
- Theft of rooftop solar panels.
- Damage to the rooftop solar panels.
- Increased liability risks – fire spreading to neighbouring properties, risk of flying solar panels.
- Business interruption due to loss of income caused by down time.

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