PV AND FIREFIGHTER OPERATIONS

"FIRE SERVICE PERSPECTIVES"

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RAPID SHUTDOWN SYSTEM

- “Rapid Shutdown” title creates some confusion for Firefighters
- When RSS is initiated, firefighters may think system is de-energized to zero voltage
  - 60 firefighter’s answers varied from grid power shutdown to de-energized panels
- 2014 RSS controls conductors to specific distance’s from array, labeling only identifies that system is present
- 2017 RSS reduces the voltage present in all DC conductors

RAPID SHUTDOWN SYSTEM

- Concern that the 3 options in 690.12 will add confusion as to what is controlled.
- 2017- RSS installers can comply to 1 of the 3 options below.
- Option1 - 690.12 (B)(2)(1) the array is listed or field labeled as a RSS array. (No clear definition on voltages)
- Option 2 - 690.12 (B)(2)(2) conductors within the boundary will be limited to 80V in 30 seconds.
- Option 3 - 690.12 (B)(2)(3) this would refer to solar shingles where there are no exposed conductors or parts. (Can allow higher voltages than option 2)

FIREFIGHTER'S COMFORT ZONE

- Informal survey of 60 firefighter's asking the following question.
  - What level of safe voltage are firefighter's comfortable with?
- Majority of firefighter's stated a "Zero" reading of voltage
- Some with electrical knowledge stated they would be comfortable with a low voltage but did not provide what that level would be

MAINTENANCE REQUIREMENTS

- Concerns exist with legacy systems with no maintenance.
- Risk of fire is increased with aging equipment not being maintained