

Week 10 Meeting



3/28/19

Team Leader: Chufu

Other Team Members: Katayi, Nur, Chufu, YJ

Advisor: Dr. Ajjarapu

Safety Moment: TORNADO SAFETY TIPS

- If a Warning is issued or if threatening weather approaches:
- In a home or building, move to a pre-designated shelter, such as a basement.
- If an underground shelter is not available, move to an interior room or hallway on the lowest floor and get under a sturdy piece of furniture.
- Stay away from windows.
- Get out of automobiles.
- Do not try to outrun a tornado in your car; instead, leave it immediately.
- Mobile homes, even if tied down, offer little protection from tornadoes and should be abandoned.
- Occasionally, tornadoes develop so rapidly that advance warning is not possible. Remain alert for signs of an approaching tornado. Flying debris from tornadoes causes most deaths and injuries.
- There were about 400 tornados recorded in Minnesota since 2010 till 2018
- Iowa has average of 51 tornados per year and in 2018, there were 69 tornados occurred.



Topics

- Layout Drawings
- Change to Solar plant
- Verification Solar Plant Values
- Substation Grounding

Layout Drawings

Changes to Solar Plant

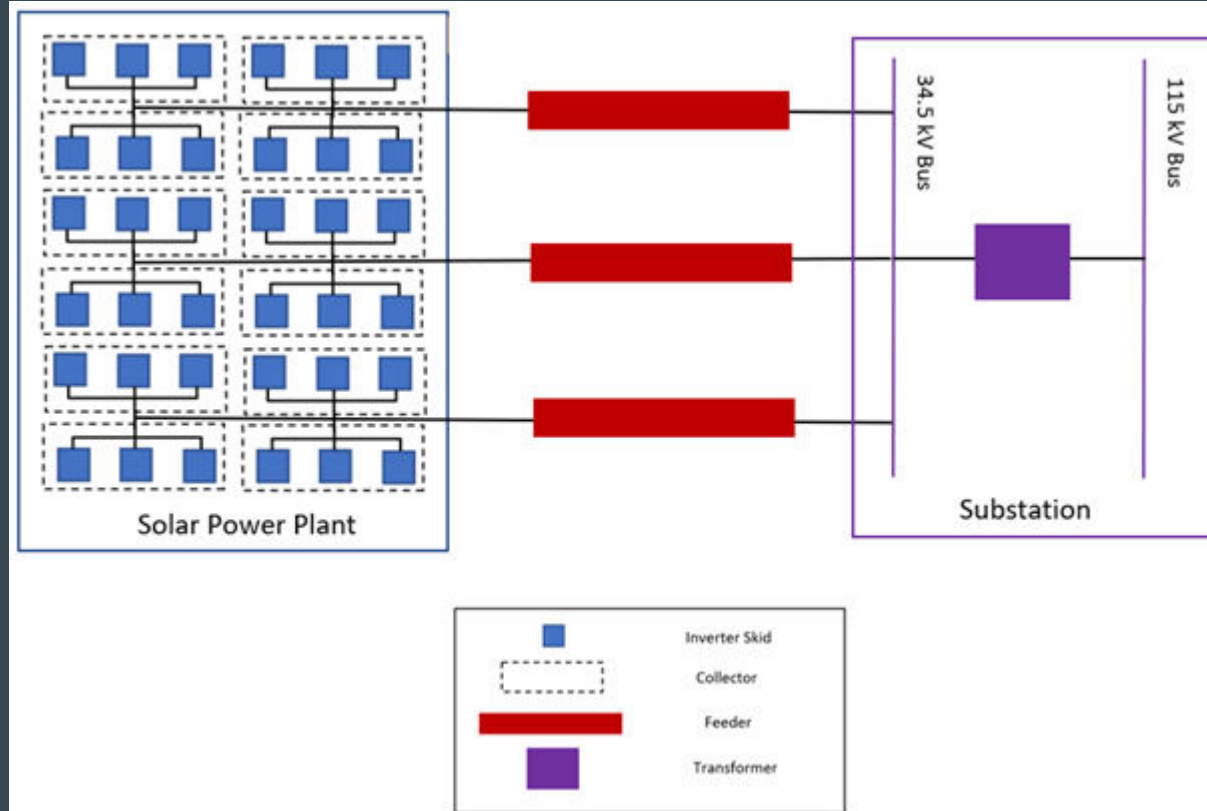
To mitigate this:

Decrease the amount of Combiner Boxes per array to meet Inverter capacity, and increase the amount of inverters/arrays accordingly for the full Plant

This way the plant size and panel amounts don't change, but Inverter amounts will. You'll probably end up with around 50ish total.

Verification of Solar Plant Values

If our inverter skids (blue boxes) are connected in parallel, does that mean we are stepping up the voltage to 34.5 kV before going into the feeders (red rectangles)?



Substation Grounding