ECE 529
Utility Applications of Power Electronics
Session 29
Alternate voltage support (more common in distribution)
\[ L'_1 = \frac{N_0}{2\pi}\ln \frac{D_m}{R}, \]

Cable: \( D_m \downarrow \)

\[ C'_1 = \frac{2\pi E_0 E_r}{\ln (\frac{D_m}{R})} \]

compared to OHL

\[ L'_1 \downarrow \]

\[ C'_1 \uparrow \]
Modeling PV inverters, WT

Output of real power depends on:

PV:

Array: DC/AC

Transmit:

Sunlight

what is goal for study

Equivalent model
- Single or multiple inverters represent a large number

- How represent impact of solar resource/wind resource?

\[ \text{Current inject} \rightarrow \text{model changes in current} \]
Model specific sunlight conditions on crops in sunlight
- Outer controls

- Representing momentary cessation for wind and esp PV

- If P output ceases to do Max Power Point Tracking

- When, why, new model