

Appropriate power system models are a necessity for effective engineering in the power field. With the rise of inverter based renewable resources, the need for accurate working models is greater than ever, both for working professionals in the field as well as the future power engineers in the classroom. Our goal is to create a basic distribution model that incorporates photovoltaic inverters and provides a hands on look at how this technology affects larger power system stability. We will also incorporate an automation scheme that can, in real time, regulate power flow to maintain stability for our small system. Ultimately, we will package our creation into a laboratory procedure so that students after us can learn first hand about inverter based resources in a larger distribution system.