Recent Progress:

1. Python ODE solver utilized for system frequency calculation (runge kutta 45)
2. tgov1 model created and validated via steps and ramps of PSLF ee544 system.
3. More `matplotlib` plot functions created.
4. GitHub updated:
   `https://github.com/thadhaines/PSLTDSim/`

Current Tasks:

1. Begin parsing WECC dyd and address associated code issues that arise.
2. Formulate feasible plan of action for casting WECC governors to LTD governors.
3. Create an agent for every object: Shunt, SVD, Branch, Transformer, ...
4. Define Agent actions for
   AGC/LFC (i.e. ACE calculations)
5. Formulate an experiment utilizing a multi-area model that can be validated with PSLF.
6. Investigate line current data and ULTC action in PSLF.

Future Tasks: (Little to No Progress since last time / Things coming down the pipe)

1. Think about Shunt Control / Generic Agent control based on system state(s)
2. Flow chart AMQP process to more clearly explain what's happening there/ find possible speed improvements.
3. Identify System Slack bus programmatically (currently assumes first slack if > 1)

   AND/OR calculate system slack error differently $\rightarrow$ An average of slack errors?
4. Matt request: Enable multiple dyd files to overwrite / replace previously defined agents/parameters

Current Questions:

1. Overview of planned PSLF scenarios?
   $\rightarrow$ Similar to Heredia paper but on Wecc/MiniWecc Scale? Yes.
2. Is there more available/relevant event data that may help us to verify simulations of specific instances (wind ramps or other behavior) that novel research will focus on?
   (Heredia paper data helpful for some wind ramp data context)
3. Any progress / continued interest in miniWecc Area definitions?
4. Any progress on Wecc single gen per bus system?
   Will this actually matter? PSLF handles distribution of Pe in power flow solution per bus, and LTD code distributes electrical power per generator... Voltage issues feel probable...