Recent Progress:

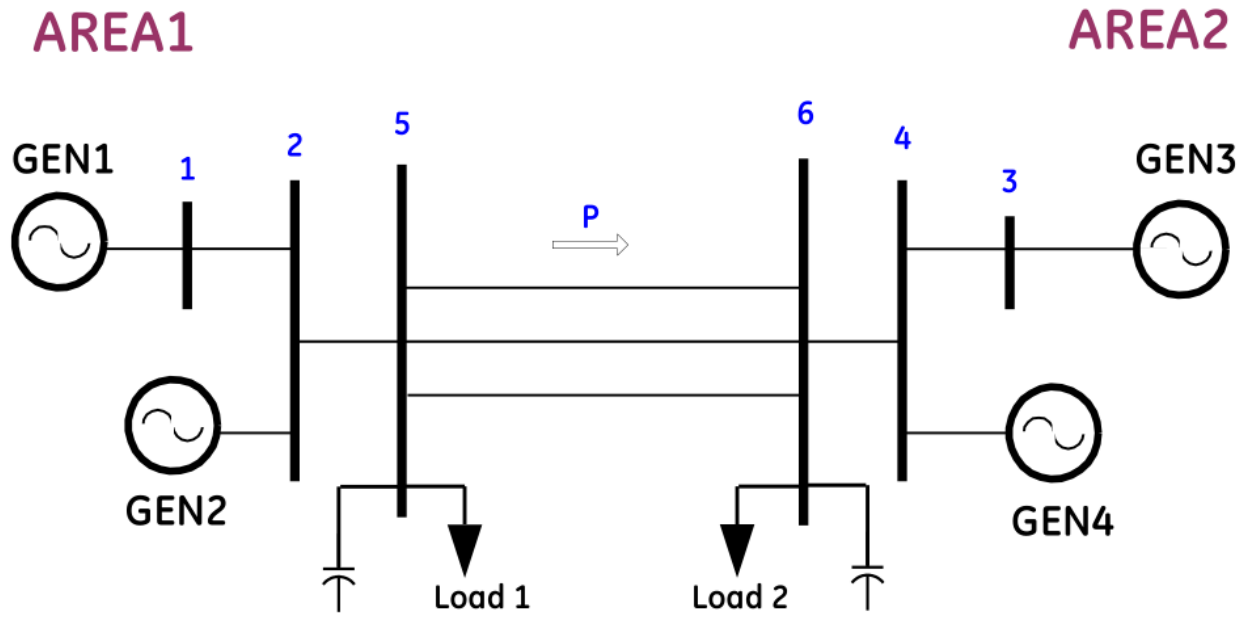
1. Committee presentation happened on 02/05/19
2. Verification of Frequency response revisited with corrected Adams-Bashforth method.
3. `fileDirectory` added to simulation parameters for data output.
4. If system 'crashes' data arrays are cleaned of 'void' data
5. Handling of setting P_e for power flow corrected
6. V_{sched} seems to be related to Generator Bus, not Generator in PSLF.
7. MATLAB quickplotter written
8. Read Heredia paper.
9. Suppress PSLF terminal output:

   Output is not from python, generated by PSLF (C?) - not so easy to redirect from python.
10. GitHub repository updated:

    `https://github.com/thadhaines/LTD_sim`

Current Tasks:

1. ODE solver search ongoing... Phil
2. Package code into library and refactor (think of a nice name):
   Power System Long-Term Dynamic Simulation → PSLTDSim
3. Starting experimenting with a multi-area model:



4. Investigate line current data (add branch section agents to model)
5. Refine data output - keep quickplotter in mind - Dictionary structure, variable naming, functionality, meta...

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

1. Add Ramp perturbance Agent
2. Investigate Runge-Kutta integration

$$x_{n+1} = x_n + h(1/6)\,[\,k_1 + 2k_2 + 2k_3 + k_4\,]$$

Fourth-order Runge-Kutta method

$$k_1 = f(x_n)$$
$$k_2 = f[\,x_n + (h/2)\,k_1\,]$$
$$k_3 = f[\,x_n + (h/2)\,k_2\,]$$
$$k_4 = f(x_n + h\,k_3)$$

3. Enable multiple dyd files to overwrite / replace previously defined agents/parameters
4. An agent for every object: Shunt, SVD, Branch, Transformer, Power Plant, ...
5. Identify System Slack bus programmatically
6. Find option to suppress PSLF terminal output IF solution speed becomes an issue.

Current Questions:

1. Overview of planned PSLF scenarios? → General MiniWecc event descriptions?
2. Kundur 'says' larger systems have inherent disturbance delays that may make our approach/assumptions unsuitable. Are we assuming with such a large time-step, any delays caused by system size are ignorable?
3. Is there any available/relevant event data that may help us to verify simulations of specific instances (wind ramps or other behavior) that the novel research will focus on?
(Same as last time)