**VTO Exelon Project Data Need**

**Argonne National Laboratory Grid Impact Analysis Team**

**Dongbo Zhao, Ravindra Singh, Karthik Balasubramaniam, Zhi Zhou, Tianqi Hong, Lusha Wang**

**08/31/2022**

**Please find below the data and system information request for our portion of the project. We have also listed the potential alternative ways in case some data/information is not available.**

Review the data request

* Availability from Exelon
  + Distribution feeder data
    - Topology, transformer location
    - Line impedances, transformer R/X parameters, substation parameters, substation connection, transformer regulator control logic
    - Capacitor bank control logic
    - EV inverters with control logic: not available from Exelon
    - Network model
  + Load profiles
    - Location
    - Active power: snapshot is provided
    - Reactive power: snapshot is provided
  + DER deployment and profiles including EV: not available from Exelon
  + Economic information: BGE need to get this from Pricing and Tariffs. PHI need to check with Engineering and Rates departments
    - Installation/upgrade cost, retail electricity price, wholesale prices on electricity and ancillary services, DER generation cost: not provided yet
* Critical level
  + Most important and needed as soon as possible:
    - Distribution feeder data and model if available
    - Load profiles of an area that Exelon is interested in analysis
  + Important but can be provided later: Economic information
* Data attributes
  + Data size and scale, region (region can be aligned with A-TEAM, e.g., DC and MD)
  + Time period: historical/prediction, length, resolution for time series data? (mostly about load profile)
* EV charging station
  + Check with Joann about EV charging station data (received from A-TEAM)
  + For existing ones or future ones? Exelon might have existing ones and future ones may be from ATEAM
  + We can use generic data for rated charging/discharging power