**Import Module Plan**

1. Get IT to Install SourceTree
2. (With Lily) Create ssh key for GitLab access, https://docs.gitlab.com/ee/ssh/#requirements
3. (With Lily) Set up Git R project, Clone <https://code.usgs.gov/vroland/thermoelectric-water-consumption-models/>
4. (With Lily) Set up Working Copy of Git Repository in Source Tree
5. Commit all work to Lily Branch, ~thermoelectric-water-consumption-models/ImportModuleFiles
6. Create csv file called “InputData\_Metafile.csv”with 5 columns:
   * 1. InputFile
     2. SheetName
     3. Description
     4. ImportFunction
     5. RobjectName
   1. This file will be a UserModified control file for the system, allowing for changing file and sheet names to be used without requiring edits to the code. The User will ONLY edit the control file and the script will use the edits to import the correct data. User will only edit InputFile and SheetName columns.
   2. Save to new folder ~ImportModuleFiles/UserControlFiles
7. Create script that reads all files in ~ImportModuleFiles/Input
   1. Use a R variable to assign path to directory of input files at the top
      1. Call it **path\_EIAInputData**
   2. Use a R variable to assign path to InputData\_Metafile.csv at the top
      1. Call it **path\_ InputData\_Metafile**
   3. Read InputData\_Metafile.csv, save to R object **meta**
   4. Create empty list for output called **inputData.list**
   5. Create a multi-level loop using **meta**
      1. Loop levels
         1. For (f in 1:length(unique(**meta**$InputFile)))
         2. For (s in 1:length(unique(**meta**$SheetName)))
            1. using openxlsx::read.xlsx(import sheet= **meta**$SheetName[s] and xlsxFile== **meta**$InputFile[f])

import data to Robject called **temp**

add temp to **inputData.list**

Change name of **inputData.list**$temp to **meta**$RobjectName[s]

* 1. After loop is complete you should have a named list containing data.frames of all the sheets for all the files in **meta**

1. Convert script to R function with 2 arguments called
   1. **import\_EIAdata(**path\_ InputData\_Metafile, path\_EIAInputData**)**
   2. function should return **inputData.list**