

Inputs	Scripts	Description	Outputs	Feeds into
Transmission Lines and Capacities. <i>OBS: no data for this now! Need to update for region, e.g. using IPM data</i>	TransmissionLineFuncs	Imports data	Transmission line source, sink, capacity	CE Model
Reserve Types + ?? from ??? + Michael's Storage Paper	RIPSMaster (DefineReserve...)	Sets parameters used to compute reserves, which are determined in CE + UC models	Parameters for computing reserves	CE pre-process <i>OBS: Don't have operational reserves in CE model since there are no unit commitment constraints. Will use this for CE model.</i>
Fuel Prices from EIA AEO + EPA IPM	RIPSMaster	Imports Fuel Prices	Fuel Prices	CE + UCED
Generator Fleet from EIA 860, Needs, eGrid, PHORUM and AEO + IPM	SetupGeneratorFleet	Sets up generator fleet. Starts with NEEDs fleet, then adds emission rates (eGrid), cooling techs + sources (EIA 860), lat/long (eGrid), Var O&M + Fix O&M (AEO + IPM), unit commitment parameters (PHORUM), fuel prices, a random operational cost added (to expedite solution of optimization) + eligibility to provide regulated reserves. Script also combines plants of certain types (for computational efficiency)	Generator Fleet	CE + UCED
CO ₂ cap	InterpolateCO2Cap	Sets CO ₂ cap based on input limits	CO ₂ cap	CE
Hourly Zonal Demand	ForecastDemandWithRegion	Computes hourly demand by zone given Francisco coeff + future met data from UW	Hourly Demand	Selectweeks... (Demand- FuncCE)

Inputs	Scripts	Description	Outputs	Feeds into
New plant types for construction (see SI of storage paper for sources)	ImportNewTechs	Tech data compiled already in Excel from variety of sources. Script imports data, then modifies plant costs per particular cooling type with IECM data. Also filters particular plant types given inputs	Plant Types able to be built in CE	CE
Hourly Capacity Factors (CFs) of renewables from NREL (Wind data set + Solar Integration data set, both from NREL)				