# Stage 1: System Definition

* Need information such as:
  + WEC type (point absorber, owc, etc.)
  + PTO type (assuming some belt-drive technology)
  + Designed power level
  + Deployment area (assuming PacWave)

Year 1: Milestone 3.7.1 – Multi-physics reliability model of PE system (AC-DC-AC Converter w/ integrated energy storage) developed and validated

* Focus is just on predicting device stresses (i.e., device temperature estimation)
* Consists of 5 stages:

1. WEC/CEC system (including PTO)
2. Gen-side power electronic converter
3. DC link supercapacitor
4. Grid-side power electronic converter
5. Grid

Year 2: Milestone 3.7.2 – PE online health monitoring tool developed and validated

* Combines Markov chain methods and rainflow counting
  + Markov chain methods will be the difficult part