

#	Design Components	Additive (Pseudo) Model	Composite (Configuration) Model
1	Combined Cycle Modeling options	Additive model combined cycle unit type where steam turbine is split among CT's	Composite combined cycle model unit type with capability to handle multiple CT's on a steam turbine in different operating configurations
2	eMkt Model	Multiple units. One market ID per CT	One unit for the entire plant
3	Ability to re-bid	Each market unit can be re-bid	No re-bidding
4	Ability to offer the combined cycle as one entity or multiple configurations	Yes. Unit can be offered as single unit or multiple units (each CT w/ steam split across the CT)	Yes. Unit can be offered in one or any number of multiple configurations (1x0, 1x1, 2x1, 2x1 w/ duct firing, etc.)
5	Handle offer curve for different configurations	Offer curves for each market unit	Offer curves for each configuration
6	Transitioning between equipment configurations (1x1 to 2x1 operation, etc.)	Individual market units are "stacked" and can started/run independently of each other and concurrently	A transition matrix is defined in the unit definition. This allows which configurations can be switched to/from and only one configuration is run at a given time for the unit.
7	Additional eMkt parameters to allow modeling of operational parameters in each combined cycle configuration	Each market unit will have its own set of unit parameters: Separate startup and min run times, Separate up and down ramp rates, Maximum daily/weekly starts, Min down time	Each configuration will have its own set of unit parameters: Separate startup and min run times, Separate up and down ramp rates, Maximum daily/weekly starts, Min down time
8	Account for steam turbine warmup periods during startup times (time period between breaker close and economic min)	Included in market unit startup cost and time	Included in configuration startup cost and time
9	Handle additional peaking equipment (duct burners, fogging, peak firing)	Peaking equipment will be incorporated as part of the unit offer curve as a higher MW range	Create a new configuration with peaking equipment (ie, 2x1 w/ duct firing) which will have its own set of unit parameters (startup cost/time, min run, ramp rates)