



Operating Committee
 Combined Cycle Modeling
 PROPOSAL MATRIX

#	Design Components	Priority (high/med/low)	Status Quo	Packages				
				A	B	C	D	E
1	Combined Cycle Modeling options		Entered as either a CT or steam unit model	(B) New pseudo-model combined cycle unit type where steam turbine is split among CT's	(A) New composite combined cycle model unit type with capability to handle multiple CT's on a steam turbine			
2	Ability to offer the combined cycle as one entity or multiple configurations		Handled by participant as part of eMkt submission (single steam unit or multiple CT's as pseudo model)	(A) Offer curves for each composite block (1x1, 2x1, 3x1, 1x0)	(A) Offer curves for each composite block (1x1, 2x1, 3x1, 1x0)			
3	Account for steam turbine warmup periods during startup times (time period between breaker close and economic min)		Startup currently defined as time of start of first CT to steam breaker closed	(C) Include warmup periods times and costs in a combined cycle model	(C) Include warmup periods times and costs in a combined cycle model			
4	Transitioning between equipment configurations (1x1 to 2x1 operation, etc.)		Units offered in either as a CT or steam unit. Unless modeled as separate components, only paid one startup cost total	(B) Pseudo-model: steam turbine is split among CT's, (C) Add additional segmented ramp rate points to model transition times, (D) Add a delay time for ramp starts	(A) Model heat input under PJM steady state model, (C) Add additional segmented ramp rate points to model transition times, (D) Add a delay time for ramp starts			
5	Additional eMkt parameters to allow modeling of operational parameters in each combined cycle configuration		Handled by participant as part of eMkt submission (economic operating range, price curve)	(A) Add separate startup and min run times for each configuration state, (B) Add separate up and down ramp rates, (C) Add maximum daily/weekly starts per configuration, (D) Add min down time per configuration	(A) Add separate startup and min run times for each configuration state, (B) Add separate up and down ramp rates, (C) Add maximum daily/weekly starts per configuration, (D) Add min down time per configuration			
6	Handle additional peaking equipment (duct burners, fogging, peak firing)		Handled by participant as part of eMkt submission (economic operating range, price curve)	(C) Add separate startup and min run times for peaking options, (E) Add maximum daily/weekly starts per configuration, (F) Add min down time per configuration	(A) Add additional segmented ramp rate points to model transition times, (B) Add a delay time for ramp starts, (C) Add separate startup and min run times for peaking options, (D) Add separate up and down ramp rates, (E) Add maximum daily/weekly starts per configuration, (F) Add min down time per configuration, (G) eMkt flag to identify various peaking modes			