No-Load Cost

	Consensus Design Criteria (or	Consensus Importance Level	March 2011 CDS Brainstormed Potential Component Solutions			
			A	B	C	D
1a	Solution Requires a definition of No Load Cost	High	Heat input mbtu/hour at the point of synchronization	Cost needed to create monotonically increasing incremental cost curve	Cost needed to create starting point of a monotonically increasing incremental cost curve	Theoretical cost for a unit to remain connected to the system while supplying no electrical power, the no load cost represents the cost of fuel required to keep the unit running.
1b	Development of a preferred single method for calculation	High	For a CC, No Load fuel is the total of all the equipment operating (CTs online) No load is the sum of all the no loads for each of the CTs in that configuration	Developing a trend line from Heat input elements -- regression analysis	Trend line should be mathematical formula with the highest adjusted R squared	Collecting heat input values as a function of output allows a regression analysis to be performed to obtain an initial estimate of the no-load.
2	Create a clear procedure for calculation of No Load Cost	High	The no load cost is simply the constant term in the heat input formula.	Heat input formula is either initial design heat input curve for an immature unit or created from empirical data.	Heat input curve must be a 2nd order polynomial or higher	
3	The procedure needed to adjust No Load costs to create monotonically increasing curves must be maintained	High	Adjustments within specified constraints are acceptable	Adjustment of the heat input curve data	Adjustment of offer curve instead of adjusting heat input curve by increasing no load	Adjust no load costs so that the first 2 MW offer increments are equal

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4	The calculation procedure must be practical and use data, measurements, test results, etc. that is realistically available to the generator owner. Solution cannot require finer information granularity than physically exists.	High	Minimum number of points to develop a heat input curve (3 points as example)	Minimum number of points to develop a heat input curve (2 points for a dispatchable unit with a variable output and 1 point for a unit with a fixed output)	M15 should have detail on heat input curve development	Minimum number of points to develop a heat input curve (1 point as example)
5	Development of a clear calculation procedure so that the No Load that is calculated by the MMU & market participant should be the same number	High	MMU should be able to verify calculation outside of standard/preferred method	Participants should have ability to justify use of alternative methods	MMU can verify calculation methods used.	
6	All unit types defined in M15 addressed	Medium	As unit types are added to M15, no load will be addressed in the appropriate sections	Clear provisions for new units not defined in M15 (no load definition and method) with interim allowable methods/costs while the CDS group develops approved methodology	Different configuration of units (eg steam units providing outside steam) alternate uses for the no load steam	