

Integrated Resource Planning

September 14, 2016

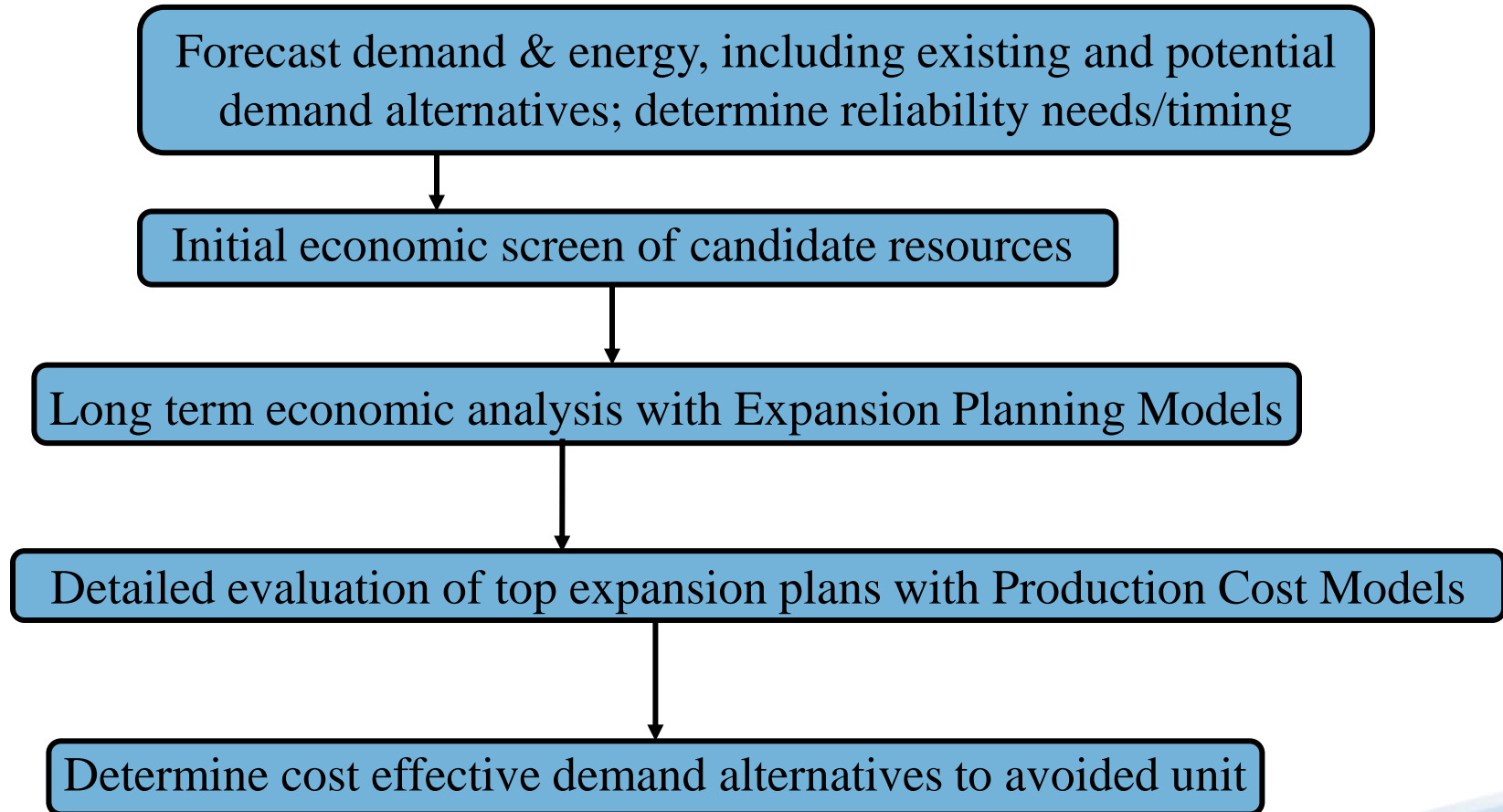
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Ten Year Site Plan (TYSP)

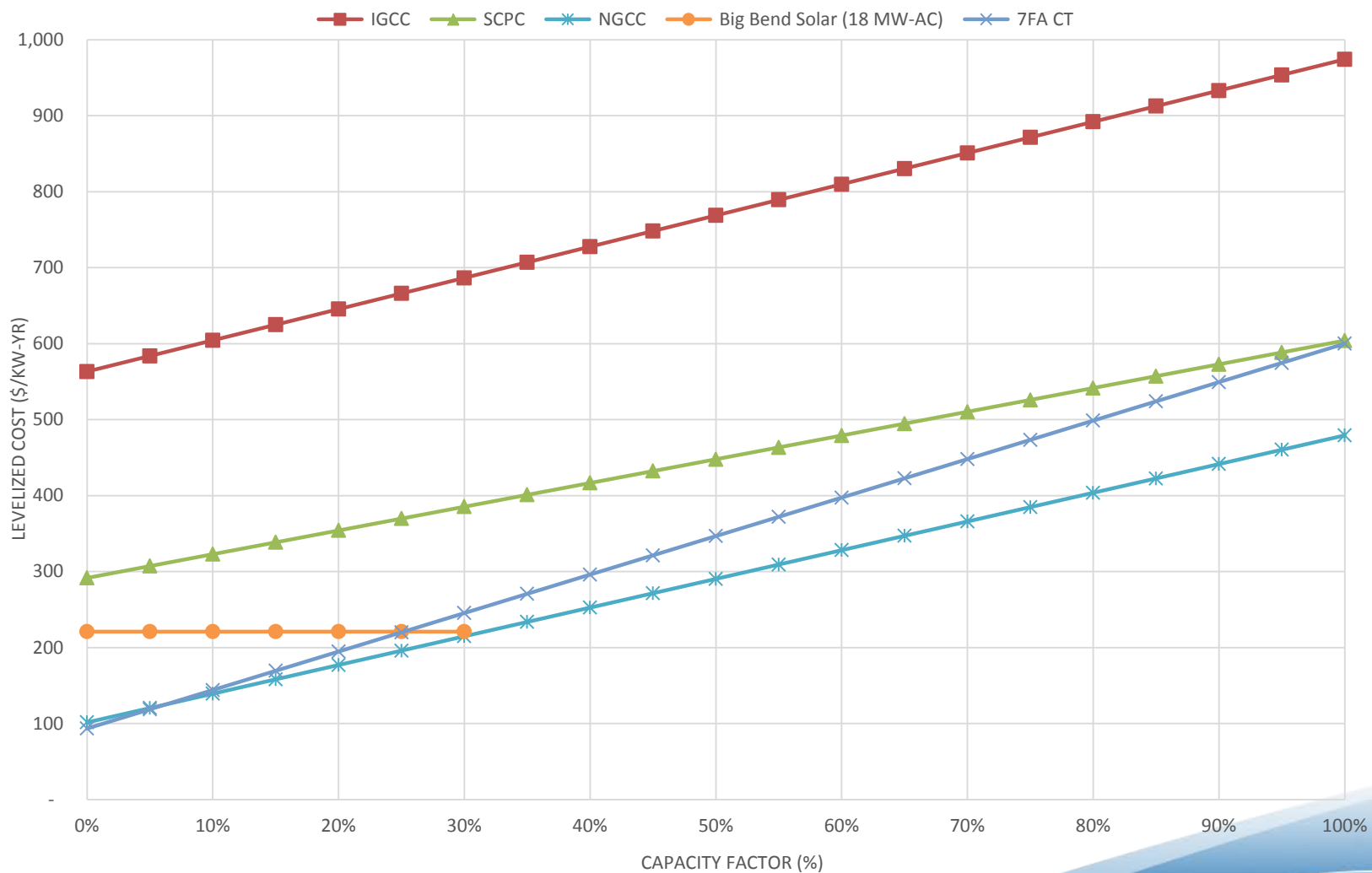
- TYSP describes planned generation expansion
- Filed April 1 annually
- TEC's IRP process designed to evaluate demand-side and supply-side resources on a comparable and consistent basis to satisfy future energy requirements in a cost-effective and reliable manner
- The process incorporates a reliability analysis to determine timing of future needs and an economic analysis to determine what resource alternatives best meet future system demand and energy requirements.

IRP process



LEVELIZED COST CURVES (\$/KW-YR)

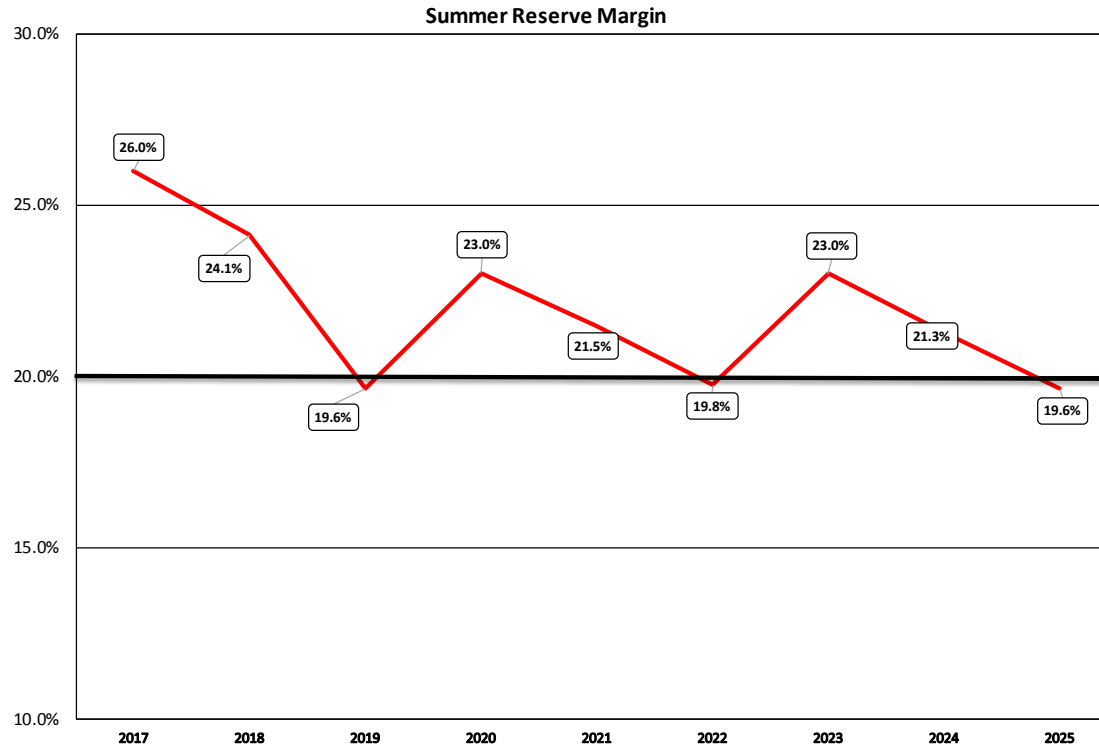
NO CARBON COST INCLUDED



Economic Analyses

- TEC uses System Optimizer (ABB) to evaluate all feasible combinations of alternatives to arrive at the most cost effective timing and type of resources that achieve the reliability criteria
- TEC uses Planning and Risk (ABB) to model the top ranked resource plan(s) for the entire planning horizon.

TYSP Expansion Plan



Planned and Prospective Generating Facility Additions

Plant Name	Unit No.	Location	Unit Type	Fuel		Fuel Trans.		Const. Start Mo/Yr	Commercial In-Service Mo/Yr	Expected Retirement Mo/Yr	Gen. Max. Nameplate kW	Net Capability		Status
				Primary	Alternate	Primary	Alternate					Summer MW	Winter MW	
Polk 2 CC	2	Polk	CC	NG	DFO	PL	TK	01/14	01/17	*	*	1,063 **	1,195 **	U
Big Bend Solar	1	Big Bend	PV	SOLAR	NA	NA	NA	5/16	5/17	*	*	18	18	P
Future CT 1	1	*	GT	NG	NA	PL	NA	09/19	05/20	*	*	204	220	P
Future CT 2	1	*	GT	NG	NA	PL	NA	09/22	5/23	*	*	204	220	P