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The Comprehensive Electricity Competition Act: A Comparison of Model Results

Table 1. Summary of Assumptions for NEMS Implementation of the CECA Reference and Competitive Cases

Category	CECA Reference	CECA Competitive
Electricity Pricing	Continued cost-of-service pricing in all sectors and States, including those that have already deregulated.	Continued cost-of-service pricing for transmission and distribution services (with cost improvements). Fully competitive pricing for generation services other than Federal facilities and in States that continue cost-of-service pricing.
Stranded Costs	Not applicable.	Generating asset stranded costs recovered through a 10-year wires charge. Negative stranded costs partially returned to consumers.[a] For IOU customers, 25 percent are returned, while 100 percent are returned to municipal and cooperative utility customers.
Renewable Power Incentives	Energy Policy Act of 1992 incentives only (through 2009 for plants brought on line by 1999).	1.5 cent per kilowatthour tax credit for first 10 years of new wind or biomass plant's life. 1.0 cent per kilowatthour for co-firing biomass in coal plants for all years. Renewable portfolio standard (nonhydroelectric) rising to 7.5 percent by 2010 with credit prices capped at 1.5 cents per kilowatthour. 0.3 cents added to 1.5 cent cap to represent impact of green power programs.
Power Plant Operating Cost and Performance Improvements	Overall performance improves as plant mix changes with the addition of new plants and the retirement of older plants. The performance of existing plants remains unchanged.	Existing plant heatrates and operating costs improve toward targets based on performance of best quartile of similar plants. New plants are assumed to reach targets immediately.
Other Cost Improvements	General and administrative expenditures decline by 1 percent annually.	General and administrative expenditures decline by 5 percent annually. Transmission and distribution costs decline by 0.75 percent and 1.5 percent annually, respectively, through 2010.
End-Use Energy Efficiency and Distributed Power	Efficiency improvements represented in *AEO99* NEMS demand models.	Combination of public benefits fund, distributed power programs, and growth in integrated energy service companies reduces the need for grid power by 250 billion kilowatthours by 2010 (300 billion kilowatthours by 2015).
Cost of Capital	Average weighted cost of capital is 10.8 percent.	Average weighted cost of capital is 12.0 percent.
Plant Retirements	Based on the economics of continuing to operate a plant. For nuclear plants, operators do not retire them until costs exceed revenues by at least 7 percent.	Based on the economics of continuing to operate a plant, including nuclear plants.
Interregional Transmission Pricing	Average interregional trade hurdles of 3 mills per kilowatthour.	Hurdle rate for trades between regions is reduced by 50 percent.
Reserve Margins	Set at historical target levels.	Endogenously determined, based on regional load characteristics, plant size and operating characteristics, and an assumed value consumers are willing to pay to avoid losing power. Reserve margins are slightly lower in CECA Competitive case because plants are assumed to perform at higher utilization rates, implying that less backup capacity is needed.

[a]When competitive market prices rise above a utility's cost-of-service-based prices, that utility is said to have negative stranded costs.

Source: Energy Information Administration, Office of Integrated Analysis and Forecasting.