



ANALYSIS GROUP
ECONOMIC, FINANCIAL and STRATEGY CONSULTANTS

Comments on Global Energy Decisions' "Putting Competitive Markets to the Test"

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Challenges in Quantifying Benefits From Enhanced Wholesale Electricity Competition

What is the “But For” World?

What Hypothesis is Being Examined?

Is the Time Period of the Study Appropriate?

What is “Wholesale Electric Competition”?

What are the Policy Implications of the Quantifications?



What Subject Areas Are Addressed in the Global Energy Study?

Generation Capacity Expansion

Operation of Nuclear Power Plants

Operation of Coal-Fired Power Plants

RTOs / Geographic Expansion of PJM



Generation Capacity Expansion

With Wholesale Competition Scenario

Merchant Generators Sell New Generation Capacity to Utility Purchasers at Market Prices

Without Wholesale Competition Scenario

Utilities Build Their Own New Generation Capacity, the Costs for Which are Recovered Through Traditional Ratemaking



Generation Capacity Expansion Scenarios

With Wholesale Competition

Without Wholesale Competition

Base Case

0 MW Coal

20,295 MW Coal

50,106 MW CCs

7,380 MW CCs

38,580 MW CTs

9,225 MW CTs

88,686 MW Total

36,900 MW Total

Low Capital Cost Sensitivity

0 MW Coal

0 MW Coal

50,106 MW CCs

0 MW CCs

38,580 MW CTs

36,900 MW CTs

88,686 MW Total

36,900 MW Total



Specific Concerns With Global Energy's Quantification of Generation Capacity Expansion Benefits

Are the Measured Benefits Sustainable?

(Ratepayer Benefits of \$15.1 B versus Merchant Losses of \$11.1 B)

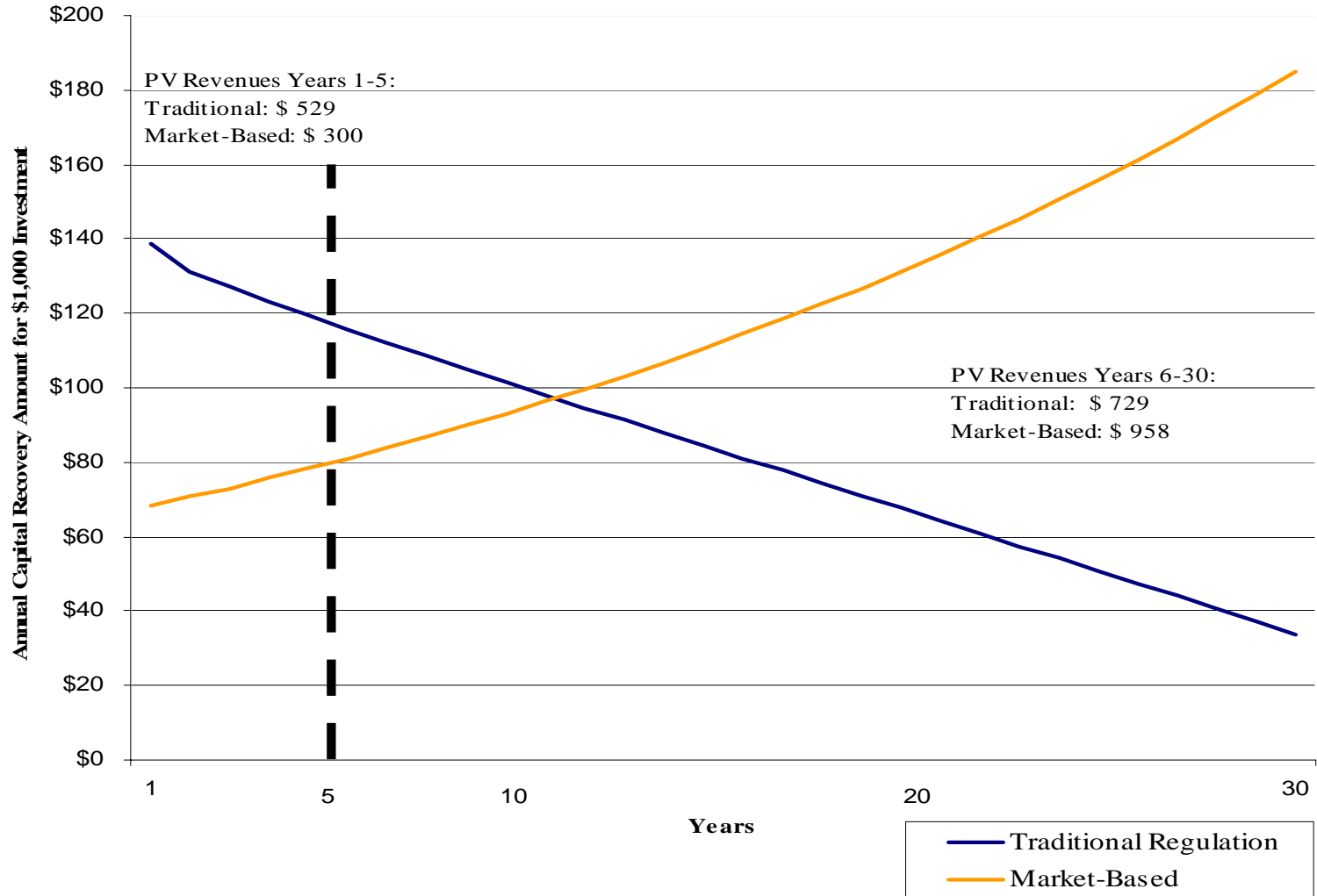
Does the Five Year Time Period for the Comparisons Affect the Results?

Does the Low Capital Cost Sensitivity Make Sense?

Which Capacity Expansion Plan is Better?



Capital Cost Recovery Patterns



Operation of Nuclear Power Plants

Competitive Nuclear Plants are the 14 Stated to Have Changed Ownership Since 1999
Traditional Nuclear Plants are Those That Have *Not* Changed Ownership in This Time Period

Global Energy's Results:

Competitive Nuclear Plants Have Experienced Greater Percentage Reductions in the Length of Refueling Outages Since 1999

The O & M Costs at Competitive Nuclear Plants Have Improved Since 1999 so That they Are Roughly In-Line with Those at Traditional Plants

Capacity Factors for All Nuclear Units Have Increased Since 1995

Overall Comment:

Almost Certainly it is True that Changed Ownership of Certain Nuclear Units has Resulted in Improved Performance

Specific Concerns With Global Energy's Nuclear Analysis:

Have the Units Been Correctly Classified?

What Hypothesis Actually Has Been Tested?

What Other Tests Might Be Performed?



Operation of Coal-Fired Power Stations

Competitive Coal Plants Are Those Owned By Parties Not Subject to Rate Regulation
Traditional Coal Plants are Those Owned By Regulated Suppliers, Municipals and Cooperatives

Global Energy's Empirical Results

Competitive Coal Plants Have Had a 6 % Average Heat Rate Improvement Since 1999 while Traditional Coal Plant Have Had only a 3 % Average Heat Rate Improvement

The Capacity Factors at Coal-Fired Power Plants Increased from 61 % in 1995 to 71 % in 2004

Competitive Coal Plants Have Lowered Their O & M Expenses by 13 % Since 1999 While Traditional Coal Plants Have Lowered Their O & M Expenses by 14 % Since 1999

Overall Comment on Global Energy's Coal Plant Analysis:

Isn't An Analysis of the Efficiency of Coal-Fired Generating Stations Much More Complicated Than Has Been Provided by Global Energy?



Impact of RTOs/PJM Expansion

What Is The Quantification That Global Energy Has Performed to Assess the Benefits of RTOs/PJM Expansion?

Production Cost Modeling of Eastern Interconnection Where (It Appears) the Only Difference Between the "Competition Case" and the "Without Competition Case" is that Pancaked Transmission Costs are Eliminated for the new PJM Entrants in the "Competition Case"

What are the Results of Global Energy's Quantification?

Annualized Savings of \$70 M in PJM and an Additional \$15 M in the rest of the Eastern Interconnection

What Are the Potential Concerns with this Analysis?

What Did PJM Actually Say?

Has the "But-For" Regime Been Adequately Specified?

What Would the Data Details Reveal?

What are the Accompanying Costs of the Integration?



Concluding Comments

Can We Really Perform Quantifications to Assess the Impacts of Enhanced Wholesale Competition?

What are the Policy Implications of this Type of Analysis?

