



**Ontario Energy Board  
2009 Consultative Process on Cost of  
Capital Review**

**Stakeholder Conference**

*Presentation to the Ontario Energy Board  
on behalf of Enbridge Gas Distribution, The  
Coalition of Large Distributors, and Hydro One*

*September 21 – 25, 2009*

# Major Points to Consider

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1. The current Formula does not satisfy the Fair Return Standard
2. Government bond yields do not track equity costs in all market conditions
3. U.S. utilities and Canadian utilities are comparable
4. Formula needs to be rebased and a new adjustment mechanism adopted
5. Government owned utilities and investor owned utilities should receive the same cost of equity capital

*Concentric's analysis has shown that 11.00% ROE on 36% equity, and 10.30% ROE on 40% equity, are the required returns for Ontario's gas and electric utilities, respectively*



# Concentric's Recommended Approach

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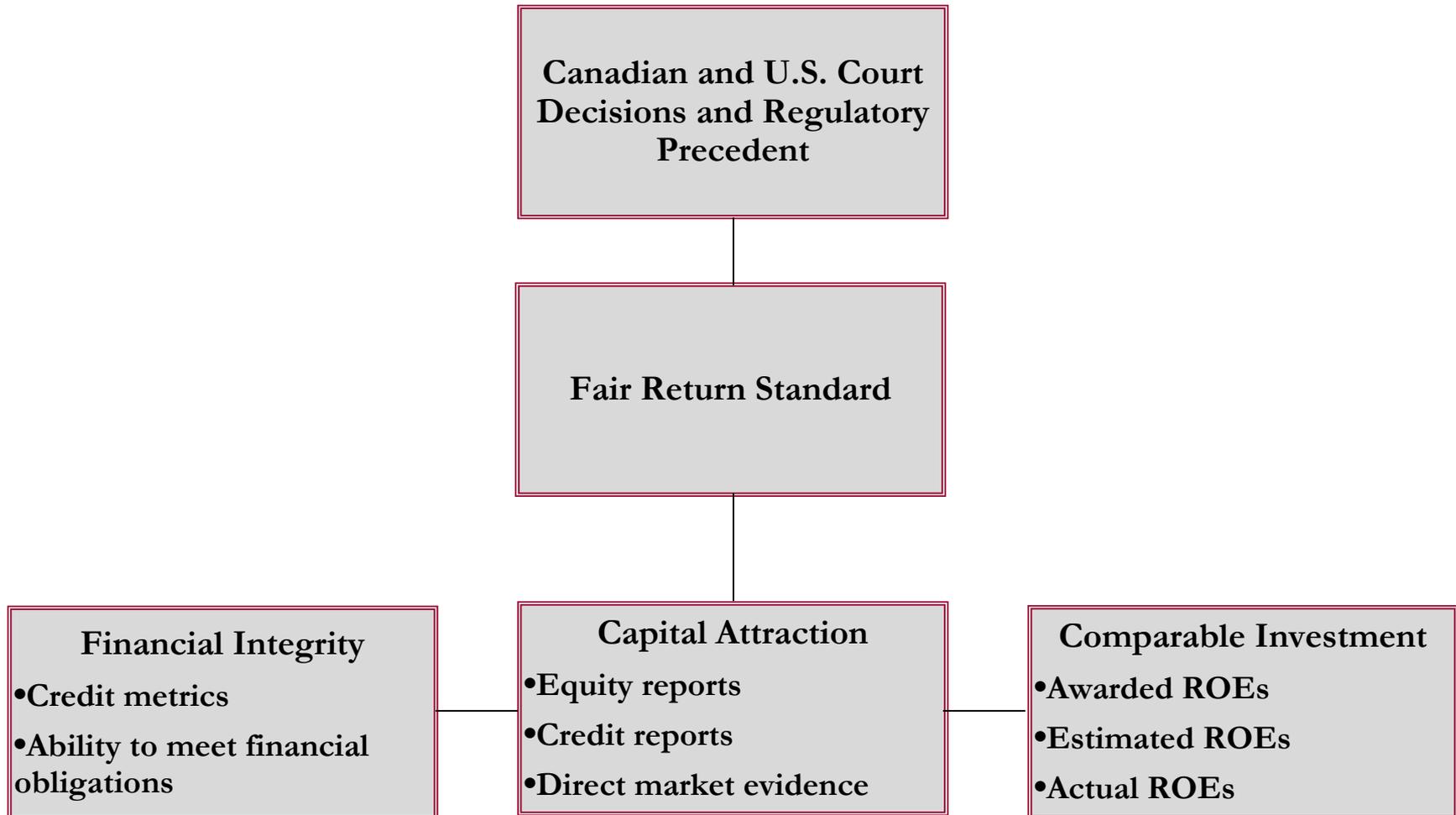
- Multiple approaches are required to estimate the utility cost of capital
- Capital structure and ROE are interdependent
- Utility management should have the flexibility to determine their own optimal capital structures within a reasonable range
- Concentric recommends re-basing the ROE, and a revised formula based on an equal weighting of corporate bond yields and comparable North American returns
  - The coefficient of 0.75 in the Formula is too high and should be closer to 0.45-0.50
  - The coefficient should be lowered only after a proper rebasing of the ROE
  - Corporate bond yields provide a better basis for a utility ROE formula
- Any Formula should be monitored, periodically reviewed, and rebased every 3-5 years



# Application of the Fair Return Standard

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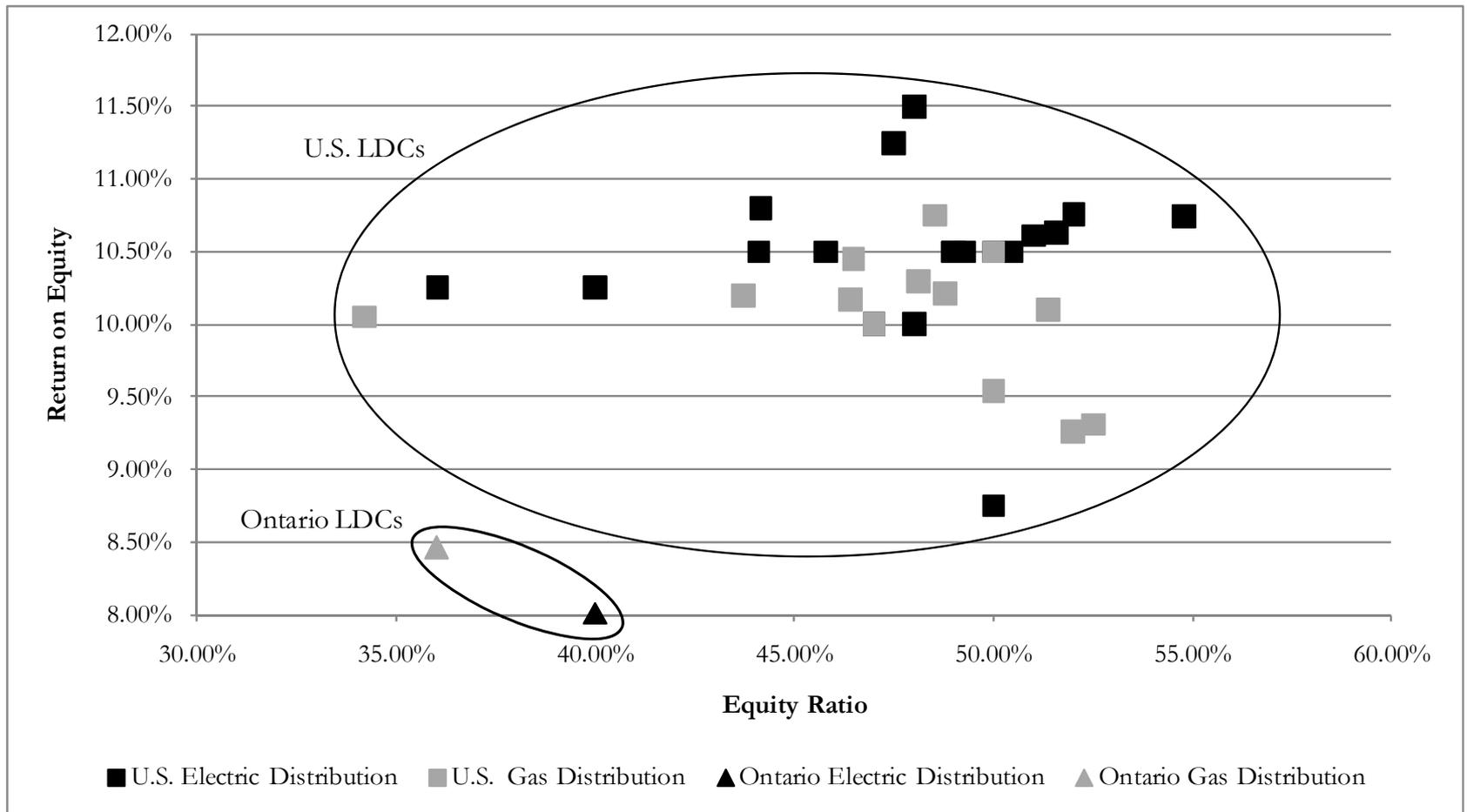
*All three tests must be met to satisfy the Fair Return Standard, and reasonable determinants are available*



# Inability to Meet the Comparable Investment Standard

*Ontario's awarded ROEs and equity levels fall well short of their U.S. counterparts*

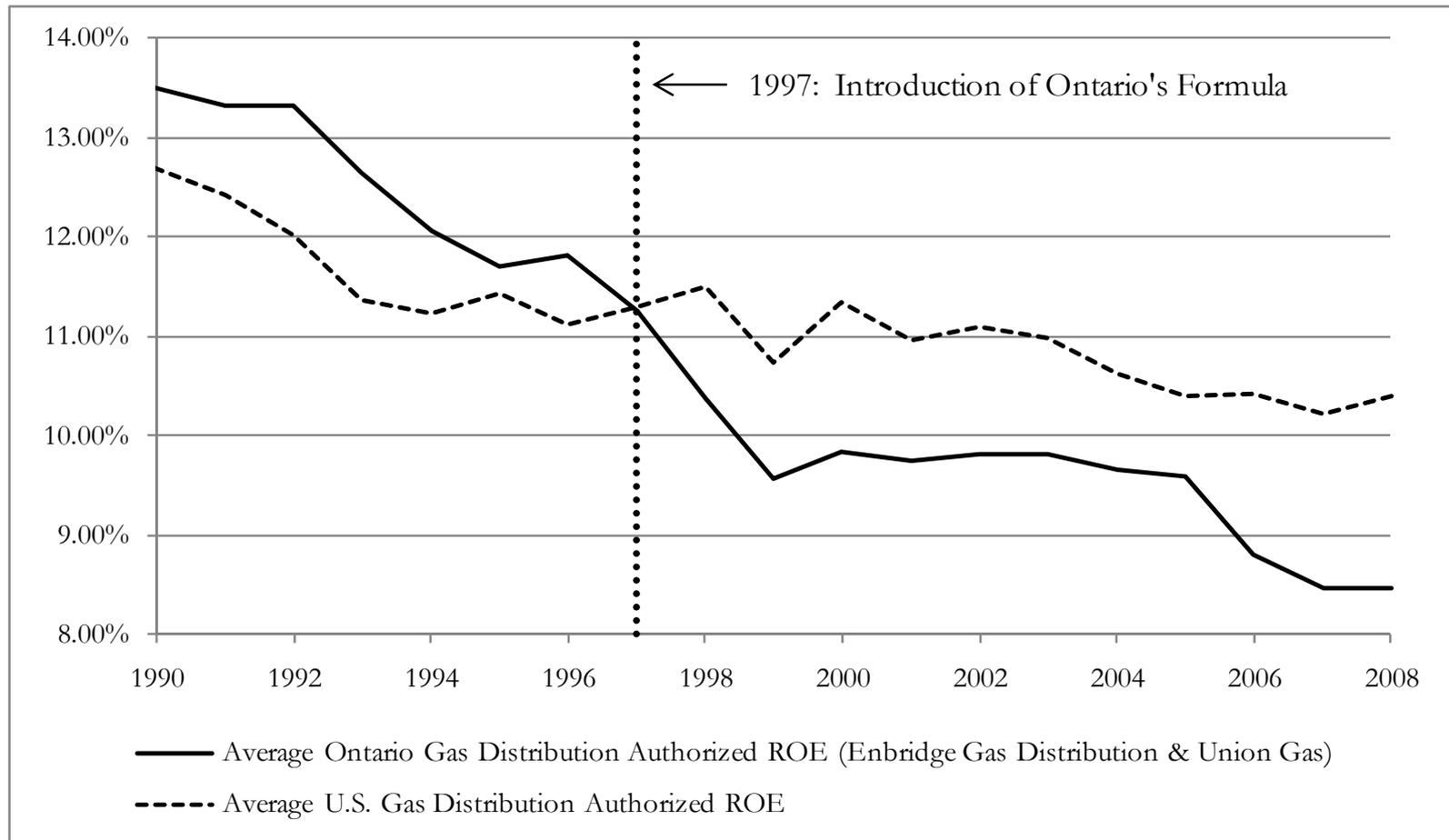
**2009 Authorized Returns and Equity Ratios (U.S. and Ontario)**



# This situation has evolved since the introduction of the Ontario Formula

*Ontario and U.S. gas LDC allowed returns were in virtual parity when the formula was established in 1997*

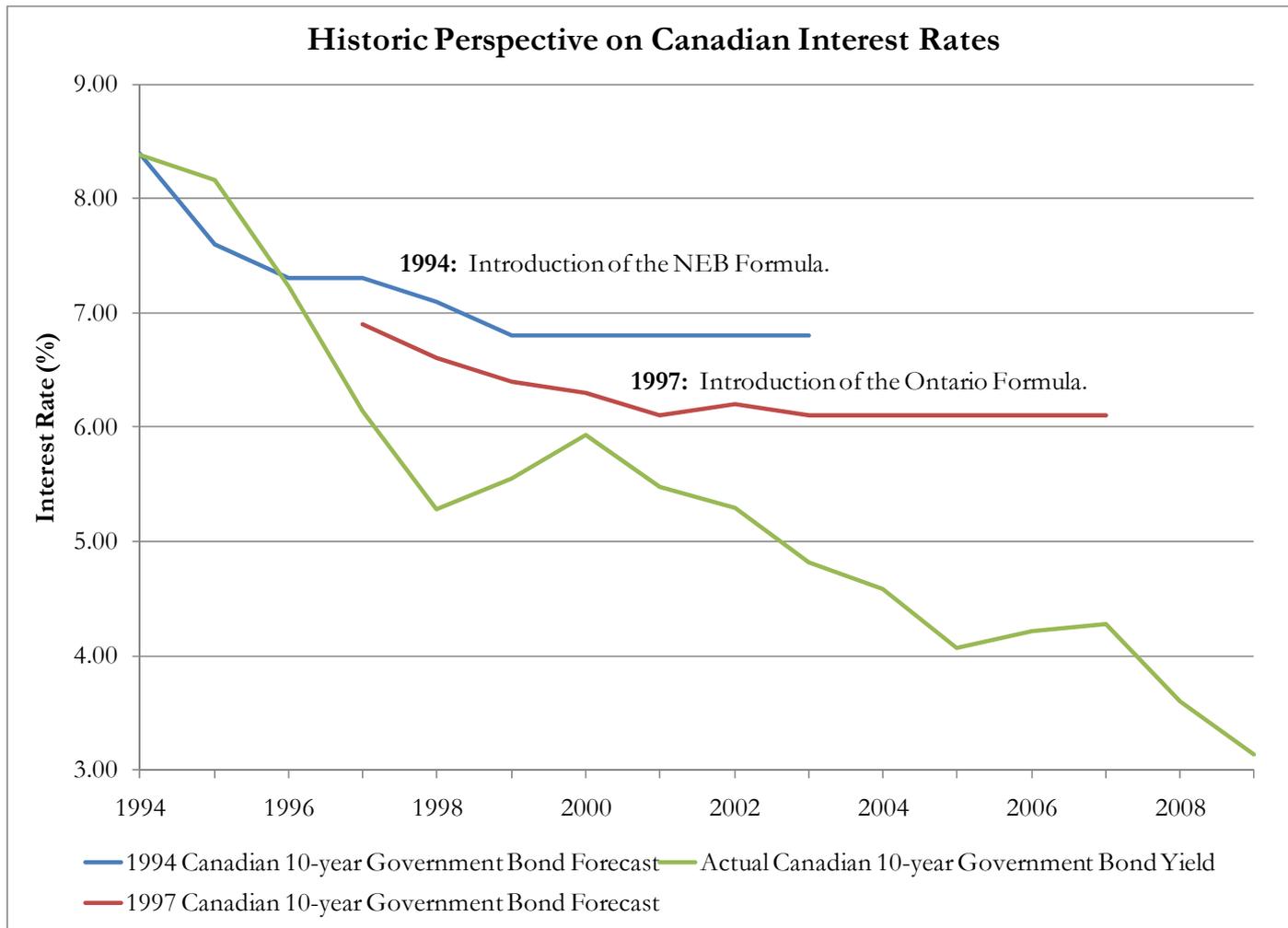
**Historical Authorized Returns – U.S. vs. Ontario (Gas Distribution)**



# Where did the Formula go Wrong?

*The unanticipated decline in government bond yields has been a principal factor...*

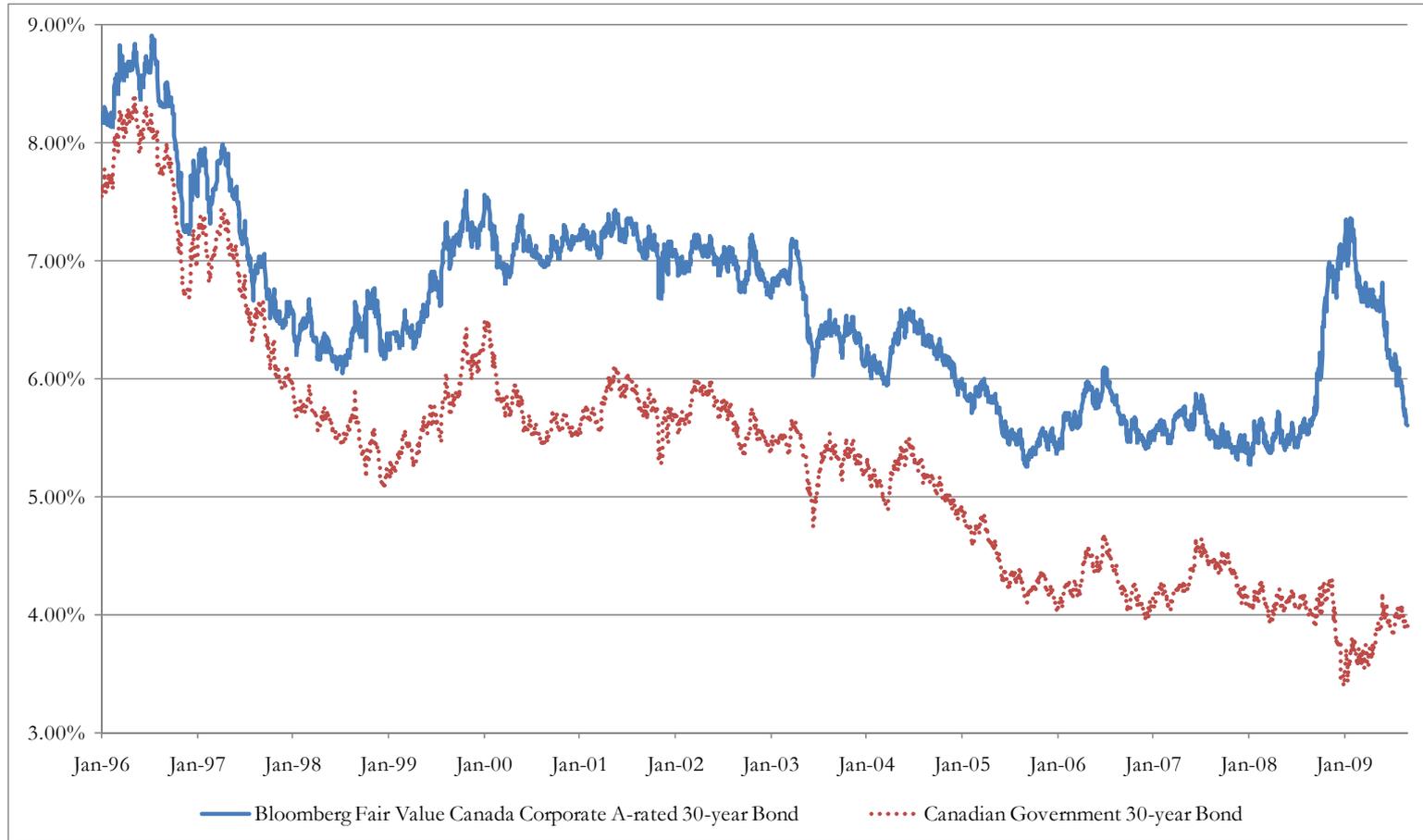
## 10-Year Government Bond Forecasts in 1994 and 1997 vs. Actual



# Where did the Formula go Wrong? (continued)

*... and government bond yields have separated from both corporate debt and equity costs*

**Government and Corporate Interest Rates January 1996 – August 2009**

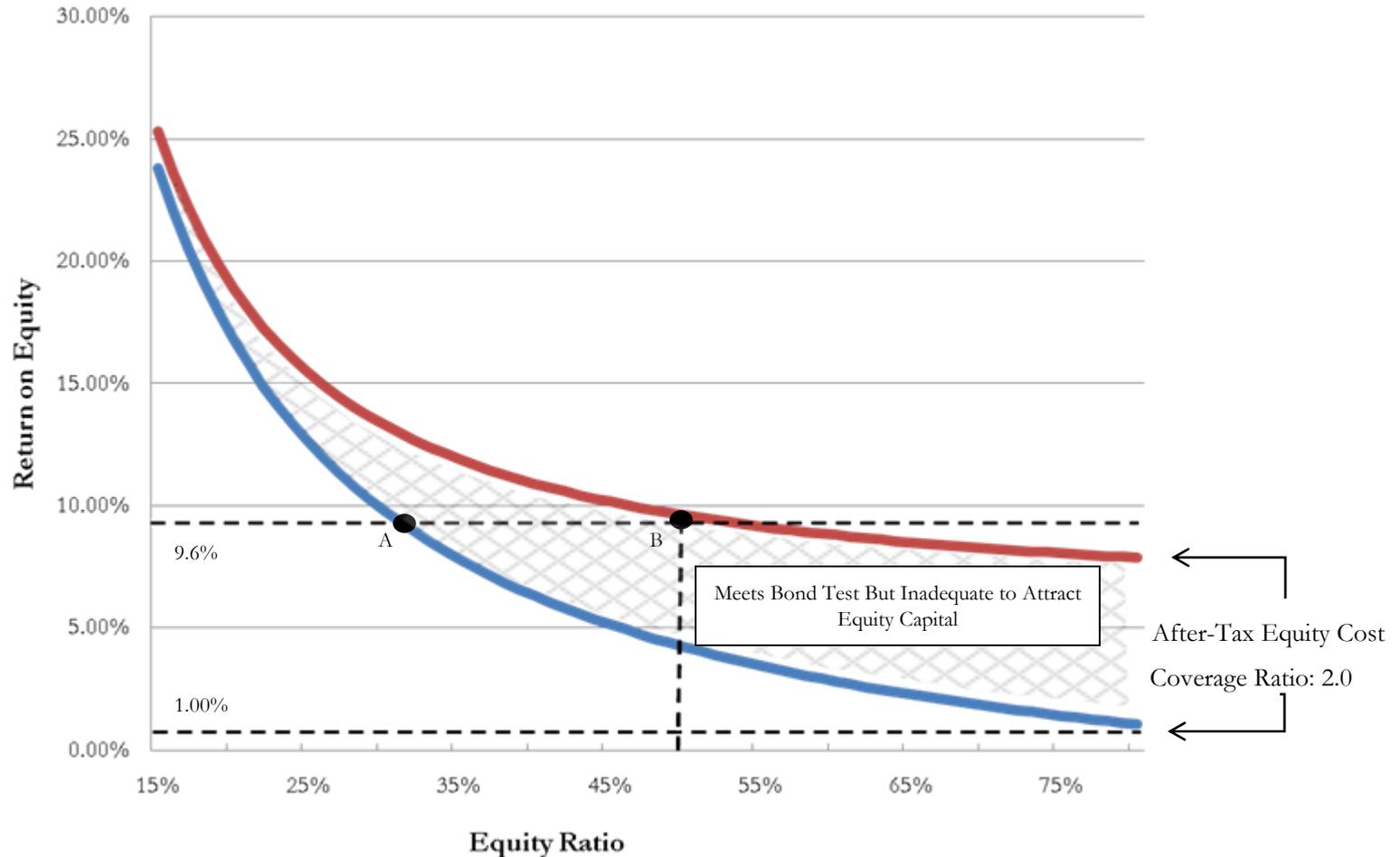


*highlighting that government bond yields do not perform well under all market conditions . . .*



# Where did the Formula go Wrong? (continued)

*The Equity Cost Curve, not the Interest Coverage Curve, is required to determine adequacy of ROE*



# The Recommended Solution

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*Re-basing ROE is required to meet the Fairness Standard*

## *Re-base ROE*

- CAPM and DCF
- Appropriate leverage adjustments for capital structure
- Appropriate proxy groups



## *Revised Formula*

- Corporate Bond Yields
- Re-estimated elasticity
- Litigated ROR results

*Annual Monitoring and 3-5 Year Reviews*

*...and a revised Formula to better track equity costs*



# Choosing a Comparator Group for Ontario's Utilities

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*The comparability problem cited by the OEB is not unusual, and has a reasonable solution*

## ***Problem:***

- Only 3 Ontario utilities are publicly traded, all at the Holdco level
- Only 5\* publicly traded Canadian utilities, all at the Holdco level
- Circularity of using data for proxy companies that are subject to the same ROE Formula

## ***Solution:***

- Broaden universe to include North American utilities
  - 54 electric utility companies covered by Value Line
  - 12 natural gas utility companies covered by Value Line
- Screen for risk and business profiles comparable to Ontario utilities (by sector)
- Risk adjustments, if necessary

\* This excludes PNG a sixth company that is not deemed to be comparable



# Risk Analysis: Ontario vs. U.S. Proxy Companies

*Careful selection of like companies adheres to the Comparability Standard*

## Electric

### ***Ontario***

- Strong financial profile
- Forecasted test year and annual adjustments to revenue requirement
- Purchased power cost recovery though no timely clearing of balances under IRM plan
- Incentive Rate Plan
- Cost recovery provisions for extraordinary and unanticipated incremental capital
- No CWIP allowed in rate base
- Recovery of smart metering program costs
- Extensive deferral account treatment

### ***North American Proxy Group***

- Strong financial profile
- Historical test year, partially forecasted data
- Incentive and earnings sharing mechanisms
- Fuel and purchased power cost recovery
- CWIP in rate base is more generally allowed
- Programs for Environmental and DSM cost recovery

*Note: Risk Analysis conducted on behalf of Enbridge Gas Distribution*



## Risk Analysis: Ontario vs. U.S. Proxy Companies (continued)

*Risks are not identical but are comparable*

### Gas

#### ***Ontario***

- Strong financial profile
- Incentive Regulation
- Conservation Decoupling
- Limited protection against weather
- Quarterly fuel cost pass through
- Revenue requirement adjusted annually for inflation less productivity offset
- Extensive deferral account treatment
- Forecast capital expenses in rate base (Union)

#### ***North American Proxy Group***

- Strong financial profile
- Full decoupling or SFV rate design
- Fuel cost pass through (monthly to annually)
- Many companies have incentive rate plans and PBR plans
- Capital project recovery mechanisms (pipeline replacement, environmental, DSM)

*Note: Risk Analysis conducted on behalf of Enbridge Gas Distribution*



# Estimated Cost of Equity for Ontario's Gas and Electric Utilities

*Current equity costs have been developed across a reasonable range of capital structures*

SUMMARY OF RECOMMENDED COMMON EQUITY RATIOS AND APPLICABLE ROES							
	COMMON EQUITY PERCENTAGE IN BOOK CAPITAL STRUCTURE						
	34%	36%	38%	40%	42%	44%	46%
<b>Gas Distribution</b>	11.3%	11.0%	10.7%	10.5%	10.2%	10.0%	9.8%
<b>Electric Transmission and Distribution</b>	11.2%	10.9%	10.6%	10.3%	10.1%	9.9%	9.7%

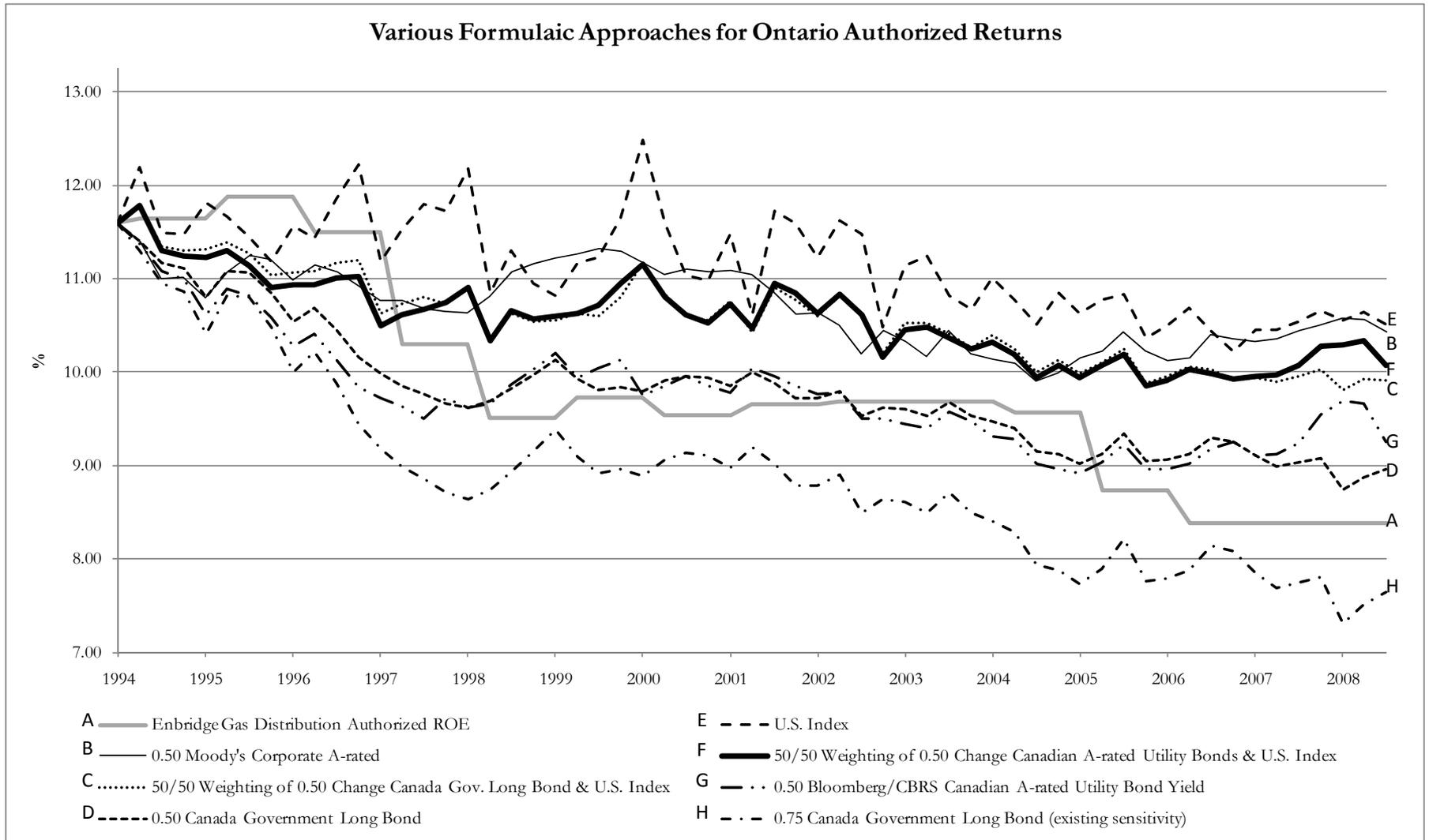
*...bounded by proxy group capital structures on one side and minimum debt coverage levels on the other*

*Note: Cost of Equity Analysis conducted on behalf of Enbridge Gas Distribution*



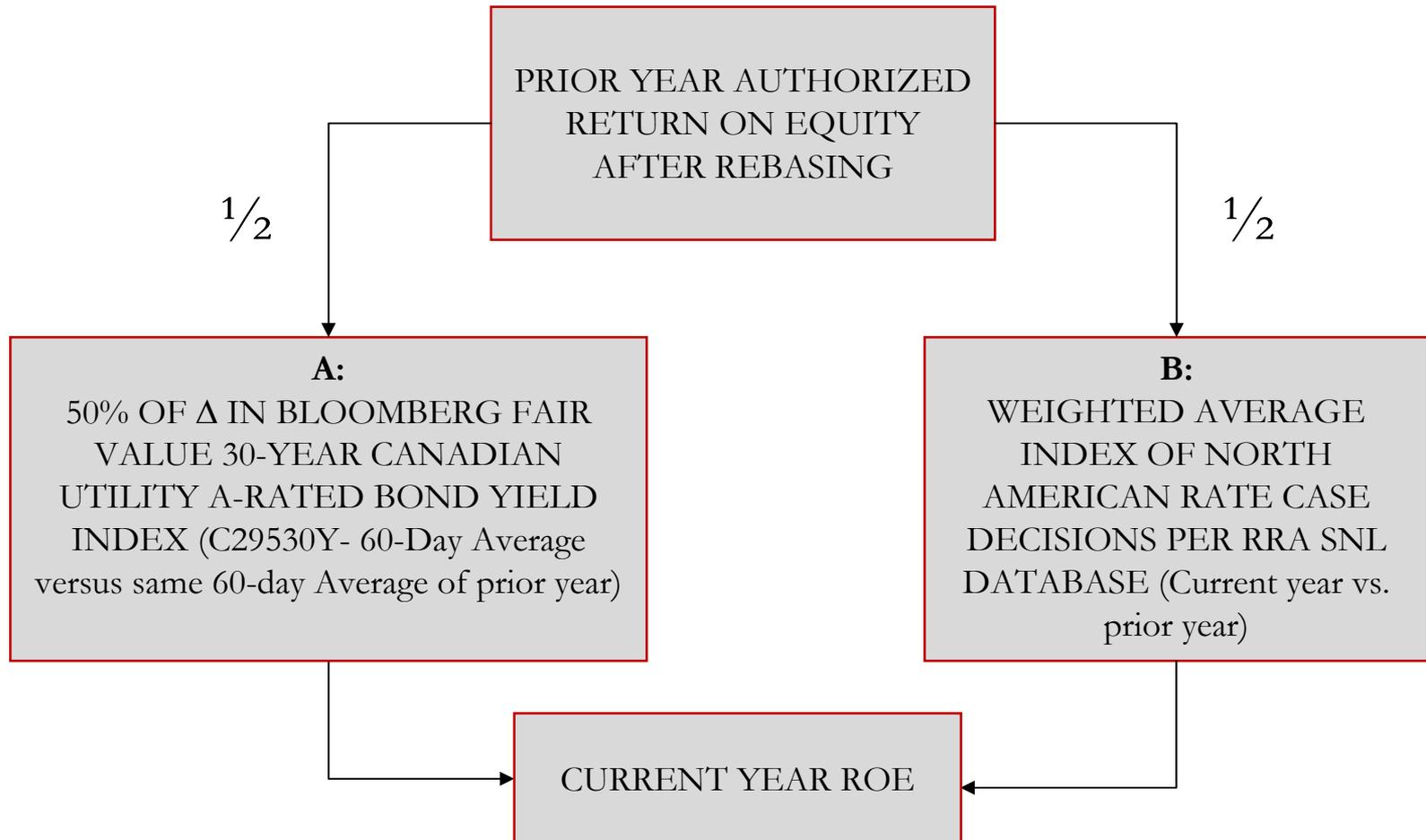
# Alternative Formula-based Approaches

*We have tested a variety of formula alternatives to track equity costs*



# Concentric's Recommended Formula

*A combination of utility bond yields and litigated equity returns have tracked equity costs reasonably well*



# Methods to Corroborate Results Produced by the Formula

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*Annual monitoring and periodic reviews will satisfy compliance with the Fair Return and build stakeholder confidence in the results*

## ***Annual Monitoring***

- Corporate and government bond yields and spreads
- Comparable litigated returns (RRA, etc.)
- Equity analyst reports
- Credit reports
- Utility debt and equity issuances
- Equity market volatility indices
- Canada/U.S. capital market trends

## ***3 – 5 Year Reviews***

- Updated cost of capital study
  - DCF
  - CAPM
  - Comparable returns
- Changes in Ontario utility business environment
  - Policy directives
  - Capital requirements
  - Utility financial condition



# Response to Positions of Other Parties

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## *The Formula is Broken*

- Formula declined when cost of capital increased
- Results unreasonable according to CAPM, DCF, ERP and CE
- Produced widening gap with U.S. allowed returns

## *U.S. Utilities Are Reasonably Comparable to Canadian*

- Concentric Report demonstrates comparability
- Concentric performed a detailed risk analysis of Ontario's utilities versus proxy group companies
- Lack of evidence from opposing parties

## *Investors Have Little Interest in Investments Regulated by the Formula*

- Many Canadian utilities are focusing more of their investments on assets not regulated by the Canadian ROE formula
- TransCanada stock and bond issuances (bonds in US\$) were primarily for U.S. investments



## Response to Positions of Other Parties (continued)

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### *CAPM Return Substantially Exceeds 7.75%*

- Current Market Risk Premium exceeds 5.00%
- Adjusted betas are required to correctly estimate the cost of equity

### *DCF Method is Unbiased and Supported by Theory*

- Theory says that stock prices reflect dividend, expected growth, risk and required rate of return
- Concentric tested for growth-rate bias and found none
- Analysts have been separated from the investment bankers and there is no incentive for “biased” estimates
- Block (FAJ, 1999) indicates that 42% of analysts consider DCF to be important, only 31% consider CAPM to be important

### *Problems with the Formula are Not Temporary*

- No theory suggests that the Formula will track the cost of common equity capital, therefore periodic re-basing is required
- Inadequate returns pre-date the financial crisis



# Conclusions

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- The current formula has not accurately tracked equity costs, and ROEs do not meet the Fairness Standard
- Ontario ROEs require re-basing based on full cost of capital analysis
- The Formula ROE adjustment mechanism requires revision
- ROE results should be monitored and periodically reviewed
- ROE deficiency places Ontario's utilities at a competitive disadvantage and runs counter to major public policy goals



# Biographies

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**James M. Coyne, Senior Vice President**, provides financial, regulatory, strategic and litigation support services to clients in the electric power and natural gas industries. Drawing upon his extensive energy-related background, he regularly advises utilities, generating companies, public agencies and private equity investors. This work includes development of business strategies, investment evaluations, and the provision of expert opinions on matters pertaining to rate policy, valuation, capital costs, fuels and power markets. He provides expert testimony on the cost of capital, valuation and related matters in both the U.S. and Canada. In addition, he focuses on the development of utility infrastructure, renewable and nuclear energy resources. Prior to Concentric, Mr. Coyne worked in senior consulting and financial advisory positions for FTI Consulting, Arthur Andersen, Navigant Consulting and DRI/McGraw-Hill. He also managed the corporate planning function for an integrated oil company, and served in regulatory and policy positions in Maine and Massachusetts. He has testified before regulatory commissions including the Federal Energy Regulatory Commission, Alberta, California, Connecticut, New Jersey, Maine, Texas, Vermont and Wisconsin. Mr. Coyne holds a BS in Business from Georgetown University with honors and an MS in Resource Economics from the University of New Hampshire.

**J. Stephen Gaske, Senior Vice President**, has 30 years of experience as an economic consultant, researcher, and professor in the fields of public utility economics, finance, and regulation. His specialty is the application to regulated industries of inter-related principles from economics, finance and regulatory theory. His areas of expertise include: finance, cost of capital, and risk analysis; rate design, cost allocation, cost of service, and pricing of services; energy markets and the economics of public utilities and energy infrastructure; competition and antitrust principles; and regulatory and energy economics, rules, and policies. Dr. Gaske has provided consulting services in more than 200 regulatory, antitrust, tax and civil proceedings. In addition, he has presented expert testimony in more than 70 state, provincial and federal regulatory commission hearings in Canada, the U.S. and Mexico. He has served as an advisor to numerous regulated companies and has authored many studies on behalf of utilities, associations and government agencies. His work has included projects involving: most of the major natural gas pipelines in North America; many electric utilities; many natural gas distribution companies; several major oil pipelines; railroads; postal service; telephone and satellite telecommunications companies; and sewer and water companies. He has been a lecturer at electric rate courses sponsored by the Edison Electric Institute and natural gas rate courses sponsored by the American Gas Association. He has taught college courses in Public Utility Economics, Transportation, Physical Distribution, and Accounting. As an Associate Professor of Finance he taught courses in Financial Management, Investments, Corporate Finance, and Corporate Financial Theory. Prior to joining Concentric, Dr. Gaske was the President of H. Zinder & Associates. He earned a Ph.D. from Indiana University School of Business, an M.B.A. from George Washington University, and a B.A. from the University of Virginia.



## Biographies (continued)

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*Julie Lieberman, Project Manager*, is a financial and economic consultant with over 20 years of experience in the energy industry. Her broad base of experience includes: wholesale and retail energy trading and operations, energy procurement, risk management, asset valuation, due diligence and litigation support. Ms. Lieberman has performed a variety of economic analyses, extensive regulatory research, assisted in asset-based transactions, and has assisted in the preparation of regulatory testimony on the topics of Cost of Capital, Return on Equity, Consolidated Tax Adjustments, and the prudence of utility investments. She has also assisted in the preparation of testimony in litigation and other non-regulatory legal proceedings. Ms. Lieberman has most recently completed her MS in Finance at Boston College, and prior to that served in the financial and risk related fields in the unregulated energy trading and marketing sector. Ms. Lieberman also holds a B.S. in Accounting from Indiana University.

