

# APPENDIX A

**UNITED STATES OF AMERICA**  
**FEDERAL ENERGY REGULATORY COMMISSION**

ITC Holdings Corp.	)	
ITC Midwest LLC	)	Docket No. EC07- _____
Interstate Power and Light Company	)	Docket No. ER07- _____
Midwest Independent Transmission	)	
System Operator, Inc.	)	

**PREPARED DIRECT TESTIMONY**

**OF**

**JONATHAN A. LESSER, Ph.D.**  
**BATES WHITE, LLC**

**ON BEHALF OF**

**ITC MIDWEST LLC**

**TABLE OF CONTENTS**

I.	INTRODUCTION AND PURPOSE .....	1
II.	SUMMARY OF FINDINGS .....	5
III.	GENERAL REGULATORY PRINCIPLES .....	13
	A. Overview .....	13
	B. ITC's Business and Financial Risk.....	15
	C. Regulatory and Economic Principles .....	19
IV.	ANALYSIS OF MIDWEST ISO PROXY GROUP .....	27
	A. The BR+SV Model .....	28
V.	DIRECT ANALYSIS OF ITC HOLDINGS.....	43
	A. DCF Analysis Results Applied to ITC .....	47
	B. Fama-French 3-Factor Model Analysis .....	48
	C. Summary and Recommendations .....	61
VI.	CAPITAL STRUCTURE.....	64

**UNITED STATES OF AMERICA  
BEFORE THE  
FEDERAL ENERGY REGULATORY COMMISSION**

ITC Holdings Corp.	)	
ITC Midwest LLC	)	Docket No. EC07- _____
Interstate Power and Light Company	)	Docket No. ER07- _____
Midwest Independent Transmission	)	
System Operator, Inc.	)	

**PREPARED DIRECT TESTIMONY**

**OF**

**JONATHAN A. LESSER, Ph.D.  
BATES WHITE, LLC**

**ON BEHALF OF**

**ITC MIDWEST LLC**

1  
2  
3

**4 I. INTRODUCTION AND PURPOSE**

**5 Q PLEASE STATE YOUR NAME, TITLE, AND BUSINESS ADDRESS.**

**6 A My name is Jonathan A. Lesser. I am a Partner with Bates White, LLC,**

**7 (“Bates White” or “the firm”). Bates White is a national consulting firm**

**8 offering services in economics, finance, and business analytics to leading law**

**9 firms, FORTUNE 500 companies, and government agencies. My business**

**10 address is 1300 Eye Street N.W., Suite 600, Washington, DC 20005.**

1 **Q PLEASE DESCRIBE YOUR PROFESSIONAL QUALIFICATIONS,**  
2 **EMPLOYMENT EXPERIENCE, AND EDUCATIONAL**  
3 **BACKGROUND.**

4 **A I am an economist and member of the firm's Energy Practice, where I**  
5 **specialize in litigation and market analysis. I have over twenty years'**  
6 **experience in the energy industry, and have focused on electric industry**  
7 **restructuring and deregulation, investment strategy, asset valuation, risk**  
8 **management, and financial risk and the cost of capital. I have worked with**  
9 **utilities, consumer groups, competitive power producers and marketers, and**  
10 **government entities, and provided expert testimony before state utility**  
11 **commissions in Alaska, Arkansas, Connecticut, Illinois, New Jersey,**  
12 **Oklahoma, and Vermont, as well as before the Federal Energy Regulatory**  
13 **Commission ("FERC" or "the Commission"), and in commercial litigation**  
14 **cases.**

15 **Before joining Bates White, I served as Director of Regulated Planning**  
16 **for the Vermont Department of Public Service. Previously, I was employed**  
17 **as a Senior Managing Economist at Navigant Consulting. Prior to that, I was**  
18 **the Manager, Economic Analysis, for Green Mountain Power Corporation. I**  
19 **also spent seven years as an Energy Policy Specialist with the Washington**  
20 **State Energy Office and also worked for Idaho Power Corporation and the**

1 Pacific Northwest Utilities Conference Committee, an electric industry trade  
2 group, where I specialized in electric load and price forecasting.

3 I hold an M.A. and Ph.D. in Economics from the University of  
4 Washington, and a B.S., *with honors*, in Mathematics and Economics from the  
5 University of New Mexico. My doctoral fields of specialization were Applied  
6 Microeconomics, Econometrics and Statistics, and Industrial Organization  
7 and Antitrust. I have written a numerous articles for academic and trade  
8 journals, and am the co-author of *Fundamentals of Energy Regulation*, which  
9 will be published in July 2007 by Public Utilities Reports, Inc. I have attached  
10 a copy of my curriculum vita as Exhibit IT-4, Schedule 1.

11 **Q ARE YOU A MEMBER OF ANY PROFESSIONAL ORGANIZATIONS?**

12 **A** Yes. I am a member of the International Association for Energy  
13 Economics, and the Energy Bar Association. I am also an Associate Member  
14 of the American Bar Association.

15 **Q WHO IS SPONSORING YOUR TESTIMONY?**

16 **A** My testimony is sponsored by ITC Midwest LLC ("ITC Midwest" or  
17 "the Company"), a new wholly owned subsidiary of ITC Holdings Corp.  
18 ("ITC").

19 **Q HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE COMMISSION?**

1 A Yes. I have testified before the Commission in other electric  
2 transmission rate proceedings on the cost of capital, in natural gas pipeline  
3 rate proceedings on gas supply and depreciation rates, and in cases involving  
4 installed capacity and market design.

5 Q **WHAT IS THE SCOPE OF YOUR TESTIMONY IN THIS**  
6 **PROCEEDING?**

7 A Upon approval of the Application, ITC Midwest will acquire all of the  
8 jurisdictional transmission assets of Interstate Power and Light Company  
9 ("IPL"), which assets are located in Iowa, Illinois, Minnesota, and Missouri.  
10 ITC Midwest will become a member of the Midwest Independent  
11 Transmission System Operator, Inc. ("Midwest ISO"), whereby its facilities  
12 will be used to provide open access transmission service in accordance with  
13 the Midwest ISO's Open Access Transmission and Energy Markets Tariff  
14 ("TEM T" or "Tariff"). The charges for transmission service over the facilities  
15 acquired by ITC Midwest will be calculated in accordance with Attachment O  
16 to the TEM T ("Attachment O"),<sup>1</sup> similar to that previously approved for  
17 ITC's other operating subsidiaries.<sup>2</sup> The charges for transmission service  
18 calculated under Attachment O are based on, *inter alia*, the return on equity

---

<sup>1</sup> *Midwest Independent Transmission System Operator, Inc.*, 102 FERC ¶ 61,210 (2003).

<sup>2</sup> *International Transmission Company, et al.*, 116 FERC ¶ 61,036 (2006); *Michigan Electric Transmission Company, LLC, et al.*, 117 FERC ¶ 61,314 (2006).

1 ("ROE"), the cost of debt, and the capital structure of the transmission owner  
2 on whose behalf the charges are calculated. My testimony supports a return  
3 on common equity of 13.88% and adoption of ITC Midwest's actual capital  
4 structure targeting 60% equity and 40% debt in developing those  
5 transmission charges. The actual cost of debt will be determined based on the  
6 debt issued at ITC Midwest, which I understand will be issued  
7 simultaneously with the close of the transaction.

8 **II. SUMMARY OF FINDINGS**

9 **Q PLEASE SUMMARIZE YOUR FINDINGS IN THIS CASE.**

10 **A** Based on my analysis, I conclude that granting ITC Midwest's request  
11 for an allowed return on common equity ("ROE") of 13.88% , the same as the  
12 current allowed ROE for International Transmission Company d/b/a  
13 *ITCTransmission* ("*ITCTransmission*"), is just and reasonable.<sup>3</sup> I reach this  
14 conclusion for several reasons. First, the 13.88% value falls within the "zone  
15 of reasonableness" I calculated using the FERC DCF-electric model applied to  
16 the *Midwest ISO group of electric utilities*.

17 Second, the 13.88% value also falls within the "zone of reasonableness"  
18 I calculated using the standard "quarterly" DCF model (using both a 30-

---

<sup>3</sup> *ITCTransmission* was granted a 13.88% ROE in Docket No. ER03-343. See *ITC Holdings Corp., et al.*, 102 FERC ¶ 61,182, *reh'g denied*, 104 FERC ¶ 61,033 (2003).

1 trading day stock price average and FERC's six-month stock price average) to  
2 the Midwest ISO group of utilities. The results of these three DCF analyses,  
3 which are summarized in Table 1, indicate an overall zone of reasonableness  
4 between 7.00% and 14.96%.

5 **Table 1: Summary of DCF Estimation Results: Midwest ISO Group**

DCF Model	Zone of reasonableness
FERC: DCF-Electric	7.00% - 14.78%
Quarterly DCF	8.37% - 14.57%
Quarterly DCF + FERC Stock Prices	8.45% - 14.96%

6 Third, a more important consideration, in my view, is that ITC, the  
7 parent of ITC Midwest, is the only publicly traded independent transmission  
8 company in existence today. The Commission has encouraged the creation of  
9 such independent transmission firms, stating:

10 By eliminating competition for capital between generation  
11 and transmission functions and thereby maintaining a  
12 singular focus on transmission investment, the Transco  
13 model responds more rapidly and precisely to market signals  
14 indicating when and where transmission investment is  
15 needed. We agree that Transcos have no incentive to  
16 maintain congestion in order to protect their owned  
17 generation. Moreover, Transcos' for-profit nature, combined  
18 with a transmission-only business model, enhances asset  
19 management and access to capital markets and provides  
20 greater incentives to develop innovative services. By virtue of

1           their stand-alone nature, Transcos also provide non-  
2           discriminatory access to all grid users.<sup>4</sup>

3           As a company whose entire business model is devoted to owning, operating,  
4           maintaining, and investing in electric transmission facilities, ITC and its  
5           subsidiaries, including ITC Midwest, face a unique set of business and  
6           financial risks. For purposes of setting an allowed ROE, this means that ITC  
7           Midwest is neither directly comparable to the Midwest ISO electric utilities,  
8           nor to other firms the Commission has traditionally regulated, such as  
9           interstate gas pipelines. As such, using the eight Midwest ISO utilities as a  
10          proxy group to establish an allowed ROE for ITC Midwest is problematic,  
11          because the “corresponding risk” requirement set out by the U.S. Supreme  
12          Court in *Hope Natural Gas* cannot be satisfied if there are no firms having  
13          corresponding risks with which to compare.<sup>5</sup>

14   **Q   IF ITC MIDWEST DOES NOT FACE BUSINESS AND FINANCIAL**  
15   **RISKS COMPARABLE TO THE MIDWEST ISO GROUP OF**  
16   **UTILITIES, OR TO OTHER FIRMS, HOW IS IT POSSIBLE TO**

---

<sup>4</sup> Order No. 679, *Promoting Transmission Investment Through Pricing Reform*, FERC Stats. & Regs. (Regulations Preambles) ¶ 31,222 P 224 (2006) (“Order No. 679”), on reconsideration, Order No. 679-A, 117 FERC ¶ 61,345 (2006) (“Order No. 679-A”).

<sup>5</sup> *Federal Power Comm’n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944) (“*Hope Natural Gas*”). Whereas the Court used the term “corresponding risk,” the more common term today is “comparable risk.”

1           **ESTABLISH A JUST AND REASONABLE RETURN ON EQUITY FOR**  
2           **IT?**

3    **A**           If a company is not comparable to any other, a reasonable approach  
4           would be to apply different ROE estimation models to the specific company  
5           under review (or in this case its parent company, ITC), based on financial  
6           analysts' estimates of future earnings growth, estimates of the company's  
7           stock "beta," and so forth. (If such a company or its parent were also not  
8           publicly traded, the uniqueness issue would be compounded. Fortunately,  
9           this is not the case in the instant proceeding.) As an additional test, one can  
10          also determine whether "stand-alone" ROE values derived for the firm using  
11          different ROE estimation models fall within a "zone of reasonableness"  
12          derived using a selected proxy group.

13    **Q**           **DID YOU PERFORM SUCH A STAND-ALONE ANALYSIS?**

14    **A.**           Yes. I performed a stand-alone analysis to determine the  
15          reasonableness of a 13.88% ROE for ITC Midwest, using all three  
16          aforementioned DCF models. I also determined the reasonableness of a  
17          13.88% ROE value for ITC Midwest using another well-known and  
18          commonly applied financial model, called the Fama-French 3-factor ("Fama-  
19          French") model. The Fama-French model was developed by economists Prof.  
20          Eugene Fama, of the University of Chicago, and Prof. Kenneth French, of the

1 Amos Tuck Business School at Dartmouth College.<sup>6</sup> The results of these  
2 stand-alone analyses are shown in Table 2.

3 **Table 2: Summary of ITC "Stand-Alone" Analysis Results**

Model	Estimated ROI
FERC: DCF-Electric	11.35% (Low):17.83% (High)
Quarterly DCF	18.46%
Quarterly DCF + FERC Stock Prices	18.94%
Fama-French 3-Factor Model	13.48% - 14.71%

4 The results of my "stand-alone" analysis recognize that the expected growth  
5 rate for ITC is far greater than the Midwest ISO group of utilities as a whole.  
6 It also recognizes ITC's uniqueness as the only publicly traded independent  
7 transmission company in the United States.

8 **Q PLEASE EXPLAIN WHY IT IS APPROPRIATE TO USE THE STAND-  
9 ALONE ANALYSIS RESULTS FOR ITC HOLDINGS TO DETERMINE  
10 THE REASONABLENESS OF A 13.88% RETURN ON EQUITY FOR  
11 ITC MIDWEST.**

12 **A** It is important to recognize that the DCF analysis I performed of the  
13 Midwest ISO proxy groups applied to those companies' overall operations,  
14 not to the Midwest ISO transmission assets they own, because investor capital  
15 is raised at the corporate level. For example, Duke Energy has generation,

---

<sup>6</sup> See, Fama, Eugene F., and Kenneth R. French. "Multifactor explanations of asset pricing anomalies," *Journal of Finance* 51, no. 1 (1996): 55-84.

1 transmission, and distribution subsidiaries. Any DCF analysis that a  
2 Commission Staff analyst, an Intervenor, or I develop would be for Duke  
3 Energy as a whole, not just the Midwest ISO transmission assets of Duke  
4 Energy, because it is Duke Energy that is publicly traded, not its subsidiaries.  
5 Thus, an individual who purchases Duke Energy stock is investing in the  
6 entire company. In the same way, the equity ITC intends to issue to finance  
7 its purchase of IPL's transmission assets will be purchased by shareholders  
8 who are investing in ITC.

9 **Q SINCE THE IPL TRANSMISSION ASSETS THAT ARE TO BE**  
10 **TRANSFERRED TO ITC MIDWEST CURRENTLY HAVE A FERC**  
11 **ACCEPTED 12.38% RETURN ON EQUITY, HOW DO YOU JUSTIFY**  
12 **INCREASING THAT ALLOWED RETURN ON EQUITY FOR THOSE**  
13 **ASSETS AS A RESULT OF THE OWNERSHIP TRANSFER?**

14 **A** Although finance theory suggests that, all other things equal,  
15 transferring ownership of an asset should not change the rate of return on  
16 that asset, in this case all things are not equal. Specifically, ITC Midwest will  
17 make economic transmission system investments when justified by consumer  
18 benefits – in addition to making required reliability investments – that will  
19 enhance operation of the IPL transmission system. Moreover, as the  
20 testimony of IPL witness Larsen discusses, IPL has no intention of

1           undertaking those economic investments. Because ITC Midwest plans to  
2           invest in economic upgrades as well as strictly reliability-based upgrades, ITC  
3           Midwest will improve the overall operations of the IPL transmission assets by  
4           reducing transmission losses and improving access to lower cost energy  
5           supplies. This should provide economic benefits by tending to reduce  
6           wholesale electric prices in the Midwest ISO market, as well as the potential  
7           for generator market power. Those economic benefits, which would not  
8           otherwise be realized under IPL's ownership, justify the increase in ROE on  
9           these existing transmission assets.

10   **Q       HAVE YOU ESTIMATED THE DOLLAR VALUE OF THOSE**  
11   **ECONOMIC BENEFITS?**

12   **A           No. I conclude that there will be economic benefits from relieving**  
13   **transmission constraints based on fundamental economic principles.**  
14   **Coupled with open access to the transmission system, building new**  
15   **transmission and eliminating transmission constraints will reduce**  
16   **transmission congestion costs, allow more generating capacity to be built, and**  
17   **allow more efficient generation to be dispatched for the benefit of Midwest**  
18   **ISO transmission customers. The precise dollar value of those benefits will**  
19   **clearly depend on many factors, including the growth in electricity demand**  
20   **over time, the actual quantity and timing of new generating resources built,**

1 such as proposed new wind power facilities, future environmental  
2 regulations, and so forth.

3 **Q WHAT CAPITAL STRUCTURE DO YOU RECOMMEND BE APPLIED**  
4 **TO ITC MIDWEST TO DETERMINE ITS OVERALL WEIGHTED**  
5 **AVERAGE COST OF CAPITAL?**

6 **A** I recommend that ITC Midwest's weighted average cost of capital  
7 ("WACC") be based on the Company's proposed actual capital structure,  
8 which targets 60% equity and 40% debt. In forming ITC Midwest, ITC needs  
9 to determine a financing structure that provides the least risk to existing  
10 shareholders, and thus the lowest cost for transmission customers. For  
11 example, if ITC financed the acquisition solely with debt, the risks faced by  
12 existing shareholders would increase because they have a secondary claim on  
13 the firm's assets. Financing the acquisition primarily with debt would  
14 increase the likelihood of ITC not being able to service that debt and maintain  
15 an investment grade credit rating. It could also increase the likelihood of ITC  
16 violating its existing debt covenants. Alternatively, were ITC solely to issue  
17 new equity to finance the purchase of the IPL assets, existing shareholders  
18 would see their equity investment overly diluted and the WACC for  
19 ratemaking purposes would also increase.

20 **Q HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?**

1     A           In Section III, I discuss the general regulatory principles that form the  
2           basis for my ROE and capital structure recommendations. In Section IV, I  
3           present the results of my analysis of the Midwest ISO utilities proxy group,  
4           using FERC DCF models that the Commission has applied to electric  
5           transmission companies, known as the “*br+sv*” or “sustainable growth”  
6           model. I also discuss the results from using the Quarterly DCF (“QDCF”)  
7           model, which is frequently applied in state public utility commission  
8           proceedings and, as I argue, does not suffer from the theoretical flaws of the  
9           Commission’s “*br+sv*” approach. In Section V, I present the results of my  
10          analysis applied to ITC itself, using all three DCF models, as well as the FF  
11          model. In Section VI, I discuss ITC Midwest’s proposed capital structure, and  
12          present my overall conclusions and recommendations.

13    **III. GENERAL REGULATORY PRINCIPLES**

14          **A. Overview**

15    **Q       PLEASE DESCRIBE THE PRINCIPLES ON WHICH YOU HAVE**  
16          **RELIED TO ESTIMATE A FAIR RATE OF RETURN FOR ITC**  
17          **MIDWEST.**

18    A           The cost of capital is defined as the expected return investors  
19           require, based on the risks those investors perceive in investing in a firm.  
20           Modern investment theory is based on portfolio risk, because many risks

1 can be reduced by holding a diverse portfolio of investments. Generally,  
2 investment risk is characterized as "diversifiable" and "non-diversifiable."  
3 The unique risk that an individual investment will fail to perform (e.g., a  
4 "junk" bond that is defaulted on) can be reduced by holding a diverse  
5 portfolio. This is what is meant by "diversifiable" risk.

6 Non-diversifiable risk, on the other hand, reflects the overall risk of  
7 the entire market. For example, an investor can buy so-called "index"  
8 funds that contain the same proportions of all S&P 500 stocks as are  
9 represented in that market index. Because it would be highly unlikely for  
10 all 500 stocks to either increase or decrease in value simultaneously,  
11 owning this index fund would reduce the unique risks associated with  
12 each individual stock. But returns from this index fund would still vary,  
13 because the index fund cannot be itself diversified, hence the terms "non-  
14 diversifiable," "systematic," and "portfolio" risk. The overall risk of an  
15 investment will increase as this non-diversifiable risk of investment  
16 increases. Investors require higher expected returns to compensate for  
17 increasing portfolio risk.

18 An individual company's risk can also be broken down into  
19 "business risk" and "financial risk." Business risk increases as uncertainty  
20 surrounding a company's future net operating income (i.e., earnings

1 before interest and taxes) increases. Financial risk depends on the extent  
2 of a company's leverage (*i.e.*, financed with debt). The greater the  
3 leverage, the greater the financial risk. Both the cost of debt and the cost  
4 of common equity increase as financial risk increases. The cost of debt  
5 increases because, as leverage increases, so does the likelihood that  
6 earnings volatility will preclude repayment of that debt. The cost of  
7 common equity increases as financial risk increases because debt has a  
8 senior claim on a company's earnings. Thus, increased debt financing  
9 shifts additional earnings uncertainty onto equity holders. Although debt  
10 financing provides a tax shield, the tax advantages of additional debt  
11 financing can be offset by the increased cost of debt, the increased  
12 likelihood of financial distress, and the uncertainty of the value of the tax  
13 shield itself. For this reason, one cannot simply conclude that  
14 continuously increasing the overall level of debt financing benefits  
15 regulated ratepayers. Indeed, at some point, increased debt financing  
16 may materially harm customers, as well as investors.

17 **B. ITC's Business and Financial Risk**

18 **Q PLEASE DESCRIBE THE BUSINESS RISKS FACED BY ITC MIDWEST**  
19 **AND ITS PARENT COMPANY, ITC.**

1     **A**           As a pure transmission company, ITC Midwest's business operations  
2           will not be diversified in the same way that the majority of the Midwest ISO  
3           transmission owners have diversified operations, including generation,  
4           distribution, and transmission operations, as well as unregulated operations.

5           In connection with the announcement of the Asset Sale Agreement, IPL  
6           also announced a plan for the construction in Iowa of a new baseload clean-  
7           coal electric power plant as well as for the development in Iowa of renewable  
8           wind power. The plan, *Energy for a New Generation*, contemplates (i) the sale  
9           of IPL FERC-jurisdictional transmission assets, (ii) the construction of a 600  
10          megawatt ("MW") clean-coal plant next to the existing 140 MW Sutherland  
11          electric power plant in Marshalltown, Iowa, and (iii) the development of 100  
12          MW of renewable wind power on sites in Iowa. The new power plant is  
13          expected to cost approximately \$1 billion and is expected to be operational in  
14          2013. IPL expects the development of renewable wind power to result in  
15          commercial operation of wind turbines in 2009. The successful operation of a  
16          new clean-coal electric power plant in Iowa as well as the successful  
17          development of renewable wind power in Iowa, will also require sufficient  
18          and reliable transmission infrastructure to transport this new generation to  
19          market.

1           The testimony of IPL witness Larsen details the boom in regional  
2 ethanol and biodiesel production, and describes the generation and  
3 transmission capacity needed to serve these plants. See Exhibit No. IP-1 at 4-  
4 6. Mr. Larsen also describes how the adoption of aggressive renewable  
5 portfolio standards in Minnesota and Wisconsin, and Iowa's abundant wind  
6 resources, have triggered a surge in wind power development in Iowa. He  
7 further explains that substantial transmission investment is needed to serve  
8 these new facilities, and that Midwestern Governors and municipal utilities  
9 have recognized the need for additional transmission investment. See Exhibit  
10 No. IP-1 at 5-7.

11           A major business risk for ITC Midwest is that it will build new  
12 transmission infrastructure to serve these planned generation facilities, but  
13 that some or all of those facilities will be delayed or not built at all. Because  
14 ITC Midwest is not diversified like other Midwest ISO utilities, should this  
15 occur ITC Midwest could face cash flow problems that cause equity investors  
16 to suffer losses. Moreover, ITC Midwest will not recover investments in what  
17 may be multi-year transmission projects until they are determined to be used  
18 and useful and included in the company's rate base.

19 **Q PLEASE DESCRIBE THE FINANCIAL RISKS FACED BY ITC**  
20 **MIDWEST.**

1     **A**           In general, the concept of financial risk refers to the level of debt in  
2           a firm's capital structure. Historically, both electric and natural gas  
3           utilities used to be considered relatively "low-risk" enterprises, based on  
4           what has been generally referred to as the "regulatory compact." Under  
5           the regulatory compact, utilities accepted an obligation to serve all  
6           customers and, in exchange, were assured a fair opportunity to earn a  
7           reasonable return on capital investments. In that regulated environment,  
8           a larger percentage of debt (compared with unregulated firms) would be  
9           more acceptable to equity investors, because utilities faced little  
10          competition.

11           The ongoing regulatory changes in the electric industry, as well as  
12          volatility in prices, changing transmission operations requirements, such  
13          as new mandatory and enforceable reliability standards, all increase ITC  
14          Midwest's financial risk. Moreover, ITC's goal of high levels of new  
15          transmission investment, as compared with traditional integrated utilities,  
16          will exacerbate its financial risk exposure.

17           Mr. Welch's testimony notes that on a consolidated ITC basis, total  
18          capital expenditures represented approximately 270% of free cash flow in  
19          2006. Because ITC Midwest will not be diversifying its revenue streams  
20          among different activities, a lower ROE will reduce the company's ability

1 to borrow against anticipated future revenues to make the level of  
2 investment that is required.

3 **C. Regulatory and Economic Principles**

4 **Q WHAT GENERAL PRINCIPLES GUIDE THE DETERMINATION OF**  
5 **AN APPROPRIATE COST OF CAPITAL OR RATE OF RETURN FOR**  
6 **A REGULATED UTILITY?**

7 **A Many cost of common equity witnesses, myself included, like to**  
8 **provide a brief judicial history for estimating a fair return on common**  
9 **equity by quoting from, or at least citing, several famous U.S. Supreme**  
10 **Court cases. Although the U.S. Supreme Court first addressed the issue of**  
11 **the value of a regulated firm over 100 years ago in *Smyth v. Ames*,<sup>7</sup> it was**  
12 **not until 1909, in *Wilcox v. Consolidated Gas*<sup>8</sup> that the Court begin to define**  
13 **a “fair” rate of return for a regulated utility. In that case, the Court**  
14 **directly discussed the relationship between risk and return, reasoning that**  
15 **a fair rate of return encompassed a return on invested capital and a return**  
16 **for risk.**

---

<sup>7</sup> *Smyth v. Ames*, 169 U.S. 466 (1898).

<sup>8</sup> *Wilcox v. Consolidated Gas Co. of N.Y.*, 212 U.S. 19, 48. (1909).

1           The most famous, and most quoted cases, however are *Bluefield*  
2           *Water Works*<sup>9</sup> and *Hope Natural Gas*.<sup>10</sup> Reference to these two cases has  
3           become rather an automatic exercise. Witnesses note these two cases and  
4           then move on to the matter of whose comparable group is appropriate,  
5           and so forth. Yet, it is well worth considering in a bit more detail what the  
6           Supreme Court said in these two cases, especially when considering a  
7           unique entity like ITC. In *Bluefield*, the Court stated:<sup>11</sup>

8           A public utility is entitled to such rates as will permit it to earn  
9           a return on the value of the property which it employs for the  
10          convenience of the public equal to that generally being made  
11          at the same time ... in other business undertakings which are  
12          attended by corresponding risks and uncertainties ... The  
13          return should be reasonably sufficient to assure confidence in  
14          the financial soundness of the utility and should be adequate  
15          ... to maintain and support its credit and enable it to raise  
16          money necessary for the proper discharge of its public duties.

17          Twenty years later, in *Hope Natural Gas*, the Court stated:<sup>12</sup>

18          [T]he return to the equity owner should be commensurate  
19          with returns on investment in other enterprises having  
20          corresponding risks. That return, moreover, should be

---

<sup>9</sup> *Bluefield Water Works & Imp. Co. v. Public Service Comm'n of West Virginia*, 262 U.S. 679 (1923).

<sup>10</sup> *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591 (1944).

<sup>11</sup> 262 U.S. 679, 692-693.

<sup>12</sup> 320 U.S. 591, 603.

1 sufficient to assure confidence in the financial integrity of the  
2 enterprise, so as to maintain its credit and to attract capital.

3 Moreover, in *Hope*, the Court also stated that it was the end results, not the  
4 methodology that was most important:<sup>13</sup>

5 [I]t is the result reached not the method employed which is  
6 controlling ... It is not theory but the impact of the rate order which  
7 counts. If the total effect of the rate order cannot be said to be  
8 unjust and unreasonable, judicial inquiry ... is at an end.

9  
10 The corresponding risk principle discussed in the Court's *Hope* opinion  
11 should guide both experts testifying about the cost of common equity and  
12 decision-making bodies such as the Commission to be less concerned with  
13 specific calculations that would determine a fair return on common  
14 equity, and more concerned with whether the outcome would be  
15 sufficient to maintain the financial integrity of a utility, while at the same  
16 time not overly rewarding a utility having a monopoly franchise. In my  
17 opinion, the focus on ensuring an equitable outcome is the essence of the  
18 "regulatory compact" and is the general context in which an allowed cost  
19 of common equity for ITC Midwest must be considered.

20 **Q WHY ARE THESE GENERAL PRINCIPLES SO IMPORTANT?**

---

<sup>13</sup> Id. at 602.

1       A           The reason this general context becomes important is that we are  
2           trying to estimate what fundamentally cannot be observed directly. None  
3           of us can look up the "true" cost of common equity the way we look up  
4           phone numbers in the Yellow Pages. Therefore, we must infer the  
5           appropriate cost of common equity empirically. We make those  
6           inferences based on fundamental economic and financial principles.

7           In doing so, it is important to recognize that estimating a cost of  
8           common equity that is "commensurate with other enterprises having  
9           corresponding risks," will always be an inexact process requiring  
10          judgment. This is especially important in the context of ITC Midwest,  
11          which is a subsidiary of the only publicly traded pure transmission  
12          company in the United States. Moreover, the Commission must  
13          determine a cost of equity that will maintain ITC Midwest's ability to  
14          attract capital into the future to reinvest in the transmission grid.  
15          Fundamentally, therefore, the goal in this proceeding should be to  
16          determine an allowed cost of common equity estimate that is reasonable  
17          and fair, while recognizing the inherent uncertainty in doing so.

18       **Q           PLEASE PROVIDE AN ECONOMIC DEFINITION OF THE "COST OF**  
19       **CAPITAL" THAT HAS EMERGED FROM THE SUPREME COURT'S**  
20       **DECISIONS.**

1     **A**           Taken together, economists have defined the Court's requirements  
2           as being satisfied if investors expect to have a reasonable opportunity to  
3           earn the cost of capital. In economists' parlance, that is the cost to a firm  
4           to attract and retain capital in an efficient, competitive, and liquid capital  
5           market. For any firm, regulated or not, publicly held or privately held, the  
6           cost of capital represents the opportunity cost of attracting and retaining  
7           capital in an efficient and competitive capital market.

8     **Q**           **PLEASE EXPLAIN HOW YOU DETERMINE WHETHER ALTERNATE**  
9           **INVESTMENTS HAVE "EQUIVALENT" OR "CORRESPONDING"**  
10          **RISK.**

11    **A**           In general, in an efficient capital market, two (or more) investments  
12          have equivalent risk if they will have similar impacts on an overall  
13          portfolio of investments. Although it may be tempting to consider the  
14          uncertainty of an individual investment's return, the effects of that  
15          uncertainty can be diversified. This is the basis for financial models, such  
16          as the Fama-French three factor model, the results of which I present in  
17          Section V.

18    **Q**           **WHAT CONDITIONS ARE REQUIRED FOR AN EFFICIENT**  
19          **CAPITAL MARKET?**

1     **A**           There are at least two requirements for an efficient capital market – or  
2           indeed, any efficient market: allocative efficiency and exchange efficiency.  
3           Allocative efficiency embodies the distribution of goods and services to their  
4           highest values. In the context of capital markets, there are both borrowers  
5           and lenders. Borrowing and lending decisions are a function of individual  
6           preferences. Collectively, individuals’ borrowing and lending decisions  
7           determine an overall market interest rate. In essence, borrowers and lenders  
8           allocate their funds based on their individual time preferences. Those  
9           collective allocations determine a market price of money, which is the  
10          prevailing “market interest rate.”<sup>14</sup> Exchange efficiency refers to the ability of  
11          borrowers and lenders to transfer funds between one another at the lowest  
12          possible cost. In the context of capital markets, this implies high liquidity and  
13          minimal transactions costs.

14    **Q**     **ARE THERE DIFFERENT CONCEPTS OF AN EFFICIENT CAPITAL**  
15    **MARKET?**

---

<sup>14</sup> At this level of abstraction, we haven’t formally included “risk.” However, not doing so does not alter the definitions of allocative and exchange efficiency.

1 A. Yes. University of Chicago Professor Eugene Fama defined three types  
2 of efficient capital markets: weak, semi-strong, and strong.<sup>15</sup>

3 1. *Weak-form*: All past market prices are completely reflected in  
4 current prices. No investor can earn excess returns by developing  
5 trading rules based on past price information.

6 2. *Semi-strong form*: No investor can earn excess returns from any  
7 publicly available information, such as corporate Annual Reports,  
8 10-K forms, Wall Street Journal columns, etc.

9 3. *Strong-form*: No investor can earn excess returns using any  
10 information, whether public or not.

11 Collectively, these three definitions have been termed the “efficient markets  
12 hypothesis” (EMH). Clearly, the last form of the EMH is overly restrictive.

13 At the very least, insider trading occurs, even though illegal, which renders  
14 the strong-form invalid. Thus, the most relevant empirical form of the EMH  
15 is the semi-strong form, which provides the conceptual basis for focusing on  
16 expectations about future performance, rather than on past performance.

17 **Q HOW DOES THE EFFICIENT MARKETS HYPOTHESIS APPLY TO**  
18 **THE DETERMINATION OF AN APPROPRIATE COST OF CAPITAL**  
19 **IN THIS CASE?**

---

<sup>15</sup> E. Fama, *Foundations of Finance*, Basic Books, 1976, Chapter 5. See also, T. Copeland and J.F. Weston, *Financial Theory and Corporate Policy*, 2<sup>nd</sup> Ed. (1983), Chapter 9.

1     **A**           Under the semi-strong form of the EMH, the prices paid for different  
2           types of securities – both debt and equity – must reflect all relevant publicly  
3           available information available to investors. This also requires that all  
4           perceived risks are taken into account by investors.<sup>16</sup> Investors as a class must  
5           be aware of, or have efficient access to, all publicly available information  
6           including bond ratings and ratings agency reports (e.g., Standard & Poor’s,  
7           Moody’s), equity ratings and forecasts of earnings growth (e.g., Value Line,  
8           I/B/E/S), and the various methodologies used to determine the cost of debt  
9           and equity as contained in the finance literature. Therefore, to estimate the  
10          cost of capital, and especially the cost of equity, it is necessary to account for  
11          the results derived by alternate financial models whose treatment of future  
12          uncertainty may differ. By using alternative models to estimate the expected  
13          future cost of equity, we can reduce the uncertainty surrounding that  
14          expectation.<sup>17</sup> I believe this is particularly important in the case on ITC

---

<sup>16</sup> It should be noted that *perceived* risk is not necessarily the same thing as *actuarial* risk. Investors, for example, may perceive that sunspot activity affects corporate profitability, even though there may be no actuarial evidence of such. However, if perceived risks are commonly believed, then they will nevertheless be relevant to the calculation of expected returns.

<sup>17</sup> An analogy using standard statistical theory is that we are determining the mean value of a population by taking a sample from that population. The variance surrounding the mean value of the sample can be reduced by: 1) using as large a

1 Midwest, because of its unique position as a subsidiary of the only publicly  
2 held, pure transmission company.

3 **IV. ANALYSIS OF MIDWEST ISO PROXY GROUP**

4 **Q PLEASE SUMMURIZE HOW YOU ESTIMATED ROE VALUES FOR**  
5 **THE MISO GROUP OF UTILITIES.**

6 **A I developed ROE estimates for all eight of the current Midwest ISO**  
7 **integrated utilities. The eight utilities are listed in Table 3, below.**

8 **Table 3: List of Midwest ISO Utilities**

1. Allete Inc.	5. MDU Resources
2. Alliant Energy**	6. Otter Tail
3. DTE Energy	7. Vectren
4. Duke Energy	8. Xcel Energy

9 \*\* - Alliant is the parent company of IPL.

10 To estimate ROE values for these companies, I applied three separate DCF  
11 methods: (1) the FERC "*br+sv*" method, which the Commission has used to  
12 establish ROE values for other transmission assets;<sup>18</sup> (2) the Commission's  
13 "weighted growth rate" DCF model, which it uses to determine allowed ROE

---

(cont.)

sample as possible, and 2) repeated sampling, such as is done in Monte-Carlo studies.

<sup>18</sup> See, e.g., Bangor Hydro-Electric Company, et al., Docket Nos. ER04-157-004 and ER04-714-001, [Opinion No. 489], ("*Bangor*"), 117 FERC ¶ 61,129 (2006).

1 values for interstate gas pipelines;<sup>19</sup> and (3) a standard Quarterly DCF  
2 (“QDCF”) model using both a 30-trading day average of stock prices and the  
3 Commission’s six month averages of stock prices.<sup>20</sup>

4 **A. The BR+SV Model**

5 **Q PLEASE EXPLAIN THE COMMISSION’S “BR+SV” DCF MODEL.**

6 **A** The Commission’s “br+sv” model is a “one-step” DCF model. To  
7 understand this model, it helps to understand how the standard DCF model  
8 is derived. In an efficient capital market, the price of a stock today equals the  
9 present value of the stream of future annual dividend payments for the next T  
10 years, plus the present value of the future stock price itself, when that stock is  
11 sold at the end of the T-year holding period. Thus, the price of the stock  
12 today,  $P_0$ , equals

13 
$$P_0 = \sum_{i=1}^T \frac{D_i}{(1+k)^i} + \frac{P_T}{(1+k)^T} \quad (1)$$

14 If the stock is assumed to be held forever, and dividends are assumed to grow  
15 at a constant annual rate,  $g$ , then equation (1) reduces to the standard  
16 “perpetual” or “Gordon” DCF model,

---

<sup>19</sup> See, e.g., Kern River Gas Transmission Company, Docket No. RP04-274-000, [Opinion No. 486], 117 FERC ¶ 61, 077, (2006), (“Kern River”), (2006).

<sup>20</sup> For a description of the QDCF model, see, e.g., R. Morin, *The New Regulatory Finance*, (Arlington, VA: Public Utilities Reports, Inc. 2006), at 343-349.

1 
$$P_0 = \frac{D_1}{1+K}, \quad (2)$$

2 or, solving for the return on equity K,

3 
$$K = \frac{D_1}{P} + g \quad (3)$$

4 **Q PLEASE DESCRIBE THE "BR+SV" APPROACH.**

5 **A** The "*br+sv*" or "sustainable growth" approach provides a specific  
6 method for calculating the growth rate, *g*, in equation (3). A regulated firm  
7 earns a return on the book value of its capital assets. Under this theory, the  
8 higher the fraction of earnings a firm pays out in dividends, the less the firm  
9 will be able grow, because it will have fewer dollars to reinvest. With a  
10 higher earnings retention ratio, *b*, the firm can sustain a higher level of  
11 internal growth. In essence, the "*br+sv*" approach attempts to recognize the  
12 tradeoff between future growth and cash payouts to shareholders.

13 **Q PLEASE EXPLAIN HOW THE "BR+SV" MODEL IS DERIVED FROM**  
14 **THE PERPETUAL DCF MODEL.**

15 **A** To derive the "*br+sv*" model, note that the dividend payments in  
16 equation (1) are just total earnings, *E<sub>t</sub>*, times the payout ratio,  $1 - b$ , where *b* is

1 the "retention ratio."<sup>21</sup> If we assume a constant payout ratio over time, we  
2 can modify equation (1) as follows:

$$3 \quad P_0 = \sum_{i=1}^T \frac{E_i(1-b)}{(1+k)^i} \quad (4)$$

4 If the firm's initial book equity is  $B_0$ , then its book equity next year,  $B_1$ , will  
5 equal  $B_0$ , plus earnings on that book equity based on the firm's allowed rate  
6 of return,  $r$ , that are retained by the firm, plus the new equity gained from the  
7 sale of new stock, which can be represented as a fraction of existing book  
8 equity. Thus,

$$9 \quad B_1 = B_0 + brB_0 + sB_0 = B_0(1 + br + s) \quad (5)$$

10 In any year  $t$ , therefore,

$$11 \quad B_t = B_0(1 + br + s)^t \quad (6)$$

12 **Q PLEASE EXPLAIN THE "V" TERM.**

13 **A** The " $v$ " term of the " $br+sv$ " method is included because not all of the  
14 equity that is added from the sale of new stock accrues to existing  
15 shareholders. It turns out that the amount of new equity that accrues to the  
16 original shareholders depends on whether the price of the stock is greater  
17 than, equal to, or less than its book value at the time the new shares are sold.

---

<sup>21</sup> If the retention ratio is  $b$ , the payout ratio must be  $1 - b$ .

1 Specifically, if the sale price of new stock is greater than the stock's book  
2 value, existing shareholders gain a positive fraction of the equity. If, on the  
3 other hand, the sale price is less than the stock's book value, the total equity  
4 of existing shareholders is diluted.<sup>22</sup> In fact, it can be shown that  $v = 1 - B/P$ .<sup>23</sup>  
5 Thus, equation (6) must be modified as

6 
$$B_t = B_0(1 + br + sv)^t \quad (7)$$

7 Total earnings per share in any year  $t$ , therefore, will just equal the rate of  
8 return times the book value in equation (7). In other words, earnings in year  $t$   
9 will equal

10 
$$E_t = rB_t = rB_0(1 + br + sv)^t = E_0(1 + br + sv)^t \quad (8)$$

11 Substituting equation (8) into equation (4), and noting again that dividends in  
12 year  $t$ ,  $D_t$ , equal earnings times the payout ratio,  $(1 - b)$ , we end up with the  
13 equivalent of equation (3):

14 
$$K = \frac{D_t}{P} + br + sv \quad (9)$$

---

<sup>22</sup> As an example, suppose the firm has 1,000 shares of stock outstanding and it gives away an additional 1,000 shares for free. The value of the original 1,000 shares will now be worth half as much. Hence, the value of those original shares has been "diluted."

<sup>23</sup> M. Gordon, *The Cost of Capital to a Public Utility*, (East Lansing: Michigan State University Press 1974).

1 Equation (9) is the “sustainable” growth model used by the Commission.

2 **Q PLEASE EXPLAIN HOW YOU ESTIMATED THE INTERNAL**  
3 **GROWTH (“BR”) COMPONENT OF EQUATION (9).**

4 **A** To derive the internal growth component of equation (9), note that I  
5 can write the retention ratio, *b*, as:

6 
$$b = \frac{(EPS - DPS)}{EPS} \quad (10)$$

7 where: EPS= earnings per share

8 DPS= dividends per share

9 Since the rate of return, *r*, on book value per share is  $r = \frac{EPS}{BVPS}$ , where

10 “BVPS” is book value per share, the quantity *br* equals:

11 
$$br = \left[ \frac{(EPS - DPS)}{EPS} \right] \times \left[ \frac{EPS}{BVPS} \right] = \frac{(EPS - DPS)}{BVPS} \quad (11)$$

12 To estimate the values in equation (11), I take averages of the actual and

13 forecast values of EPS, DPS, and BVPS, and divide by the expected book

14 value per share (“BPS”).<sup>24</sup> Specifically, I used the values as reported by

15 Value Line for each company for the years 2006, 2007, and the 2009-2011

16 period. For example, the most recent Value Line Investment Survey report

---

<sup>24</sup> If the firm paid out 100% of its earnings as dividends, internal growth would be zero.

1 for Allele, Inc. is dated December 29, 2006. Value Line reports the following  
2 estimates for EPS, DPS, and BPS:

3 **Table 4: Value Line Estimates for Allele, Inc.**

	2006	2007	2009-11	Average
EPS	\$2.70	\$3.15	\$3.75	\$3.20
DPS	\$1.45	\$1.61	\$2.10	\$1.73
BPS	\$21.30	\$22.90	\$28.00	\$24.07

4 Source: Value Line Investment Survey, 12/29/2006

5 Given these estimates, my estimated internal growth rate for Allele is just

6 
$$br = \frac{(\$3.20 - \$1.73)}{\$24.07} = 6.11\%.$$

7 **Q PLEASE EXPLAIN HOW YOU ESTIMATED THE EXTERNAL**  
8 **GROWTH ("SV") COMPONENT OF EQUATION (9).**

9 **A I estimated the external growth components using the Value Line**  
10 **forecast of growth in outstanding shares of stock. Specifically, I use the**  
11 **reported shares outstanding in 2006 and the estimated shares outstanding in**  
12 **2009-11 to determine an annual growth rate, *s*, in the number of each**  
13 **company's outstanding shares. To estimate *v*, I take the expected BVPS value**  
14 **for each company and divide it by the average of monthly stock prices for the**  
15 **previous six months, the same stock prices that are used to estimate the**  
16 **dividend yield in equation (9).**

1 Q THE COMMISSION'S DCF METHODOLOGY ALSO USES AN  
2 ALTERNATE GROWTH RATE ESTIMATE. PLEASE EXPLAIN  
3 WHERE YOU OBTAINED THESE ALTERNATIVE GROWTH RATES.

4 A I use the forecast long-term earnings growth rates for each company,  
5 as published by Institutional Brokers ("I/B/E/S"). Table 5 and Exhibit IT-4,  
6 Schedule 2, summarize the *br+sv* and I/B/E/S growth rates for each Midwest  
7 ISO utility. As this table shows, the I/B/E/S forecast earnings growth rates are  
8 not uniformly larger or smaller than the *br+sv* estimates.

9 **Table 5: Earnings Growth Rates for Midwest ISO Companies**

Company	<i>br+sv</i>	I/B/E/S forecast
Allele Inc.	6.63%	5.00%
Alliant Energy	4.91%	6.00%
DTE Energy	2.33%	5.67%
Duke Energy	2.76%	6.03%
MDU Resources	9.80%	7.15%
Otter Tail	3.86%	5.00%
Vectren	2.65%	4.00%
Xcel Energy	4.08%	6.20%

10

11 Q PLEASE EXPLAIN HOW YOU DETERMINE THE DIVIDEND YIELDS  
12 USED IN EQUATION (9).

13 A For its DCF-electric model, the Commission determines the next year's  
14 dividend yield,  $D_1/P$ , as follows. First, the Commission approach calculates

1  $D_1$ , which represents next year's dividend payment, by taking one-half the  
2 projected growth rate for each firm. The Commission approach adjusts the  
3 current dividend yield,  $D_0$ , by one half of the expected annual growth, since  
4 companies tend to increase their quarterly dividends at different times of the  
5 year. In other words, the Commission approach "averages" the dividend  
6 values to reflect one-half year's worth of dividend growth. Thus, the " $D_1$ "  
7 term in equation (3) is assumed to equal  $D_0$  times  $(1 + g/2)$ , implying that

$$8 \quad K = \frac{D_0(1 + g/2)}{P} + g \quad (12)$$

9 The stock price,  $P$ , for each proxy company is estimated using an  
10 average of each of the previous six month's high and low stock prices. So,  
11 for each of the previous six months, ending with February 2007, I took the  
12 reported highest and lowest closing stock prices to determine the lowest and  
13 highest dividend yields for each of those months, respectively. I then  
14 averaged those individual monthly values to determine overall average low  
15 and high dividend yields, which I then used in equation (12).<sup>25</sup>

16 **Q PLEASE SUMMARIZE THE RESULTS OF YOUR FERC DCF-**  
17 **ELECTRIC ANALYSIS FOR THE MIDWEST ISO GROUP UTILITIES.**

---

<sup>25</sup> The Commission's DCF-gas model does not use high and low dividend yield estimates. Instead, the dividend yield is based on the average of the monthly closing stock prices.

1     **A**           The results of my analysis are summarized in Table 6 below and  
2           shown in Exhibit IT-4, Schedule 3.

3           **Table 6: Summary of FERC DCF-Electric Results for Midwest ISO Group**

Allete Inc	8.16%	9.96%
Alliant Energy	7.90%	9.24%
DTE Energy	4.80%	8.33%
Duke Energy	9.40%	13.08%
MDU Resources	11.72%	14.78%
Otter Tail	7.56%	8.91%
Vectren	7.00%	8.58%
Xcel Energy	8.06%	10.36%
<b>Average</b>	<b>9.54%</b>	
<b>Minimum</b>	<b>7.00%</b>	
<b>Maximum</b>	<b>14.78%</b>	
<b>Median</b>	<b>8.74%</b>	
<b>Midpoint</b>	<b>10.89%</b>	

4

5           As Table 6 shows, I have highlighted the Low result for DTE Energy, which is  
6           4.80%. This is over 150 basis points below the long-term corporate bond rate,  
7           which averaged 6.34% for Baa-rated corporate bonds in January 2007,

1 according to the most recent data available from the Federal Reserve.<sup>26</sup>  
2 Moreover, according to the March 2007 issue of Blue Chip Financial Forecasts,  
3 yields on Baa-rated corporate debt are expected to increase to around 6.8% by  
4 the second quarter of 2008.<sup>27</sup> Since debt holders have a senior claim to a  
5 firm's assets over equity holders, any ROE estimate that is below a firm's  
6 forecast cost of debt is not reasonable. Therefore, I have excluded this  
7 estimate to establish an overall zone of reasonableness. Thus, using the FERC  
8 DCF-electric approach, I derive a zone of reasonableness between 7.00% and  
9 14.78%.

10 **Q DO YOU RECOMMEND THAT THE COMMISSION RELY SOLELY**  
11 **ON THIS "BR+SV" APPROACH TO ESTABLISH A RETURN ON**  
12 **EQUITY FOR ITC MIDWEST?**

13 **A** No. The "*br+sv*" method contains a logical inconsistency that makes it  
14 problematic and unreliable, especially if used alone.

15 **Q PLEASE EXPLAIN THIS INCONSISTENCY IN THE "BR+SV"**  
16 **APPROACH.**

17 **A** To understand the logical inconsistency of the "*br+sv*" approach,  
18 recognize that the "*r*" term in the "*br*" component is the expected return on

---

<sup>26</sup> Source: Federal Reserve Bank of St. Louis, Economic Research. Available at: [www.research.stlouisfed.org/fred2/series/BAA?&cid=119](http://www.research.stlouisfed.org/fred2/series/BAA?&cid=119). (Last accessed March 1, 2007).

<sup>27</sup> Blue Chip Financial Forecasts 26(3), March 1, 2007, at 2.

1 equity. Additionally, since the  $v$  term is based on book and market values per  
2 share, it too will be affected by the return on equity. How much the firm  
3 earns will affect how much of those earnings are paid out, which will affect  
4 book value. Therefore,  $b$ ,  $r$ , and  $v$  are not independent of one another, and  
5 uncertainty over the appropriate future values will be exacerbated by this  
6 interdependence.

7 What is worse, however, is that a regulated firm's earnings are largely  
8 determined by the regulator itself. In other words, the " $r$ " in the " $br+sv$ "  
9 approach, is set by regulators. This means the approach, in fact, requires an  
10 estimate of allowed ROE before an estimate of allowed ROE can be  
11 determined.<sup>28</sup> This is completely circular.

12 **B. The Quarterly DCF Model**

13 **Q HOW IS THE ANNUAL DCF MODEL OF EQUATION (3) MODIFIED**  
14 **TO ACCOUNT FOR DIVIDENDS BEING PAID ON A QUARTERLY**  
15 **BASIS?**

16 **A** The Commission's half-year dividend growth formula is one approach.  
17 Several other approaches are sometimes used, all of which attempt to account

---

<sup>28</sup> A fuller discussion of the problems with this approach can be found in Morin, *op. cit.*, at 306-307.

1 for the usual payment of dividends on a quarterly basis, with varying degrees  
2 of accuracy.

3 **Q PLEASE DESCRIBE THE FORM OF THE QUARTERLY DCF MODEL**  
4 **YOU USE.**

5 **A** Rather than using a dividend "averaging" approach, such as used by  
6 the Commission, I use a quarterly DCF model that reflects when the next  
7 dividend payments actually will be made for each firm. In this way, the  
8 results of the analysis will not be biased by the timing of the analysis. Nor is  
9 there any need to rely on an assumption of one-half year's worth of dividend  
10 growth in equation (12). Instead, the QDCF model I use has the following  
11 form:

$$K = \frac{\sum_{t=1}^4 D_{0,t}(1+g)(1+K)^{-[x+0.25(t-1)]}}{P_0} + g \quad (13)$$

13 where:  $K$  = the cost of common equity;

14  $D_{0,t}$  = the current quarterly dividends for quarters  $t = 1$  to 4;

15  $g$  = the projected earnings growth rate;

16  $P_0$  = the current stock price; and

17  $x$  = the elapsed time between the stock price observation date and  
18 the next dividend payment, in fractional years.

19 The expression  $(1+k_e)^{-[x+(0.25)(t-1)]}$  measures the value of the expected dividend,

20  $D_{1,t}$ , one year from the stock price measurement date. Although equation (13)

1 looks complex, it accurately accounts for the date of the analysis by  
2 considering the time from the most recent stock prices used in the analysis to  
3 the next scheduled dividend payment date. This avoids the problem of  
4 arbitrarily averaging the time until dividends are paid. Moreover, the ROE  
5 value,  $K$ , in equation (13) is easily determined using numerical methods.

6 **Q PLEASE DESCRIBE THE STOCK PRICES USED IN YOUR QDCF**  
7 **MODEL ESTIMATES.**

8 **A I used an average of the closing prices for the previous 30 trading days**  
9 **ending February 28, 2007. In my opinion, a 30-day average represents a**  
10 **reasonable compromise between the tenets of the Efficient Markets**  
11 **Hypothesis, which in theory would require using only the price of the stock**  
12 **on the most recent trading day, versus the inherent volatility of day-to-day**  
13 **stock prices. For example, on February 27, 2007, the U.S. stock market fell**  
14 **over 400 points, ostensibly because of an over 9% reduction in the Chinese**  
15 **stock market. If I chose to estimate the QDCF model based on stock prices on**  
16 **February 26, rather than February 27, I would likely have derived much**  
17 **different ROE values, even though there had been no fundamental changes in**  
18 **the economy. I use an average of the past 30-trading days to reduce that**  
19 **volatility.**

1 Q DID YOU ALSO ESTIMATE THE QDCF MODEL USING STOCK  
2 PRICES BASED ON THE PREVIOUS SIX-MONTHS OF TRADING  
3 DATA?

4 A Yes. Although I believe using the past six months' of closing stock  
5 price data likely gives too much weight to the past, I also calculated QDCF  
6 values based on a six-month average of the daily closing stock prices for each  
7 of the Midwest ISO group utilities. The results of this analysis are shown in  
8 Exhibit IT-4, Schedule 4, and in Table 7 below.

9 Q HOW DID YOU DETERMINE THE ELAPSED TIME BETWEEN  
10 FEBRUARY 28, 2007 AND THE DATE OF THE NEXT SCHEDULED  
11 DIVIDEND PAYMENT FOR EACH MISO COMPANY?

12 A To determine the elapsed time value,  $x$ , between February 28, 2007 and  
13 the next scheduled dividend payment dates, I relied on the dividend payment  
14 date information contained in each Midwest ISO company's (or parent  
15 company's) Annual Report.

16 Q PLEASE DESCRIBE THE EARNINGS GROWTH RATES YOU USED  
17 IN YOUR QDCF MODEL ESTIMATES.

18 A I used the same earnings growth rates as I used in my FERC gas-  
19 pipeline DCF model analysis. Specifically, I took an average of the 5-year  
20 forecast earnings growth rates published by I/B/E/S, Value Line, and Zack's.

1 **Q PLEASE DISCUSS THE RESULTS OF YOUR QDCF ANALYSIS.**

2 **A** The results of my QDCF analysis are shown below in Table 7, and in  
 3 Exhibit IT-4, Schedule 4. As can be seen, the range of estimates is between  
 4 8.51% and 14.79% using the QDCF and stock prices based on the previous 30  
 5 trading days. The range of results using averages of the previous six months'  
 6 stock prices is slightly higher, between 8.45% and 14.96%.

7 **Table 7: Summary of QDCF Results for Midwest ISO Group Companies**

Allete Inc	9.02%	9.18%
Alliant Energy	8.37%	8.45%
DTE Energy	9.60%	9.75%
Duke Energy	14.57%	14.96%
MDU Resources	10.00%	10.08%
Otter Tail	8.37%	8.58%
Vectren	8.60%	8.64%
Xcel Energy	9.86%	10.11%
<b>Average</b>	<b>9.80%</b>	<b>9.97%</b>
<b>Minimum</b>	<b>8.37%</b>	<b>8.45%</b>
<b>Maximum</b>	<b>14.57%</b>	<b>14.96%</b>
<b>Median</b>	<b>9.31%</b>	<b>9.47%</b>
<b>Midpoint</b>	<b>11.47%</b>	<b>11.71%</b>

1 **V. DIRECT ANALYSIS OF ITC HOLDINGS**

2 **Q PLEASE EXPLAIN WHY YOU PERFORMED A SEPARATE ANALYSIS**  
3 **ON ITC ALONE.**

4 **A I performed a stand-alone analysis based on data for ITC alone because**  
5 **the company is unique. It is the only publicly traded, independent**  
6 **transmission company in the United States. As such, the general approach of**  
7 **establishing a proxy group of comparable firms, and using analytical results**  
8 **derived for that proxy group, breaks down. If ITC was just another**  
9 **diversified electric utility that owned transmission assets, in addition to other**  
10 **assets, then setting ITC Midwest's allowed ROE based on the results of the**  
11 **Midwest ISO proxy group would be reasonable. In fact, if ITC were just like**  
12 **the other Midwest ISO companies, then I would expect that the results of an**  
13 **analysis of ITC itself would fall near the middle of the proxy group range.**  
14 **However, ITC is not just another diversified electric utility.**

15 **Q HAS THE UNIQUENESS OF ITC BEEN RECOGNIZED BY**  
16 **PROFESSIONAL FINANCIAL ANALYSTS?**

17 **A Yes. For example, in a January 21, 2007 report on ITC, A.G. Edwards**  
18 **wrote**

19 **As the first publicly traded independent transmission company, ITC is**  
20 **unique and is, therefore, not a perfect match for any of our electric**  
21 **power peer groups for comparison purposes. We include ITC in our**

1           Wires and Pipes Group, but acknowledge that there exist material  
2           differences between ITC and the rest of the group.

3  
4           Similarly, in a report dated January 22, 2007, Credit Suisse wrote, "We always  
5           find the greatest challenge with the ITC Holdings story coming from  
6           valuation, largely because there is no good comp group for the stock."

7   **Q   PLEASE CONTINUE.**

8   **A           Consider Exhibit IT-4, Schedule 5, which provides a summary of key**  
9           **financial statistics for the Midwest ISO group of utilities, as well as ITC. First,**  
10          **even with the acquisition of the IPL transmission assets, ITC's overall**  
11          **revenues are expected to be between \$420 million and \$430 million, based on**  
12          **forecasts contained in the analyst reports prepared by A.G. Edwards and**  
13          **Credit Suisse, respectively. That amount is only half the \$800 million forecast**  
14          **2007 revenues of Allele, Inc., which has the smallest revenues by far of the**  
15          **eight Midwest ISO utilities.<sup>29</sup> Forecast revenues in 2007 for the other seven**  
16          **Midwest ISO utilities are forecast by Value Line to range between \$1.2 billion**  
17          **(Otter Tail) and \$17.5 billion (Duke Energy). Average forecast revenues in**  
18          **2007 for the Midwest ISO Group firms is over \$6 billion.**

---

<sup>29</sup> Source: Value Line Investment Survey, Individual Company Report for Allele, Inc., December 29, 2006.

1           *Second, 100% of ITC's revenues, including revenues from ITC*  
2           Midwest, will be from regulated transmission operations, whereas all of the  
3           other Midwest ISO utilities derive significant revenues from unregulated  
4           operations. The only exception to this is Xcel Energy. However, Xcel's  
5           revenues in 2006 were just under \$10 billion, and it has regulated electric and  
6           gas operations spanning eight states in the upper Midwestern and  
7           southwestern United States, and derives revenues from transmission,  
8           distribution, and generation services. Thus, in addition to being a far larger  
9           company than ITC, Xcel is also operationally and geographically diversified.  
10          And, unlike ITC Midwest, none of the Midwest ISO utilities rely on just one  
11          customer (IPL) for a majority of their revenues. Finally, as noted in Mr.  
12          Welch's testimony, on a consolidated basis the previous level of investment of  
13          ITC's subsidiaries has been significantly more than free cash flows. Similarly,  
14          ITC Midwest's investments to improve reliability and economic efficiency of  
15          the transmission grid are expected to constitute a significant portion of its  
16          revenues, further differentiating ITC Midwest from the Midwest ISO utilities.

17   **Q   PLEASE EXPLAIN WHY IT IS APPROPRIATE TO USE THE STAND-**  
18   **ALONE ANALYSIS RESULTS FOR ITC HOLDINGS TO DETERMINE**  
19   **THE REASONABLENESS OF A 13.88% RETURN ON EQUITY FOR**  
20   **ITC MIDWEST.**

1     **A**           It is important to recognize that the DCF analysis I performed of the  
2           Midwest ISO proxy groups applied to those companies' overall operations,  
3           not to the Midwest ISO transmission assets they own, because investor capital  
4           is raised at the corporate level. For example, Duke Energy has generation,  
5           transmission, and distribution subsidiaries. Any DCF analysis that a  
6           Commission Staff analyst, an Intervenor, or I develop would be for Duke  
7           Energy as a whole, not just the Midwest ISO transmission assets of Duke  
8           Energy, because it is Duke Energy that is publicly traded, not its subsidiaries.  
9           Thus, an individual who purchases Duke Energy stock is investing in the  
10          entire company. In the same way, the equity ITC intends to issue to finance  
11          its purchase of IPL's transmission assets will be purchased by shareholders  
12          who are investing in ITC.

13    **Q**     **WHAT MODELS DID YOU USE TO ESTIMATE ROE VALUES FOR**  
14           **ITC ITSELF?**

15    **A**           I used the three different DCF models – FERC electric, FERC gas  
16           pipeline, and QDCF (using both the 30-day and 6-month stock price  
17           averages). I also used the Fama-French model, which I fully describe in  
18           Section V.B, below. The Fama-French model is well-recognized in the  
19           academic literature and is commonly used by financial analysts and  
20           investment banks to evaluate returns for smaller firms like ITC because of

1 recognized weaknesses in the more common Capital Asset Pricing Model  
2 ("CAPM").

3 **A. DCF Analysis Results Applied to ITC**

4 **Q PLEASE DISCUSS THE STAND-ALONE DCF ANALYSIS YOU**  
5 **PERFORMED FOR ITC.**

6 **A** In developing DCF estimates for ITC, I used the same basic approach  
7 as I did for the Midwest ISO proxy group. I calculated DCF estimates for ITC  
8 using the FERC DCF models, and the QDCF model using both a 30-day of  
9 ITC's stock price and a six-month average of its stock prices.

10 **Q PLEASE DISCUSS THE EARNINGS GROWTH RATE FORECASTS**  
11 **FOR ITC HOLDINGS.**

12 **A** For the "*br+sv*" growth estimate used in the FERC-electric DCF model, I used  
13 forecasts of EPS, DPS, and BVPS published by Credit Suisse in its January 22,  
14 2007 report on ITC. For my alternative growth rate, I used an average of the  
15 forecast 5-year EPS growth forecasts published by I/B/E/S and Zack's, as the  
16 Value Line report on ITC does not include any long-term forecasts of growth.  
17 As shown in Exhibit IT-4, Schedule 2, the I/B/E/S and Zack's forecasts of EPS  
18 growth for ITC are 14.6% and 16.0%, respectively, far higher than any of the  
19 Midwest ISO group utilities.

1 Q PLEASE DISCUSS THE RESULTS OF YOUR DCF ANALYSIS FOR ITC  
2 ALONE.

3 A The results of my DCF analysis for ITC are summarized in Table 8, and  
4 can also be found with the Midwest ISO utility DCF estimates in Exhibit IT-4,  
5 Schedules 3 and 4. As Table 8 shows, the different DCF model estimates  
6 range between 11.35% and 18.94%, with a midpoint value of 15.14%.

7 **Table 8: DCF Results for ITC**

<b>Average</b>	<b>16.30%</b>
<b>Minimum</b>	<b>11.35%</b>
<b>Maximum</b>	<b>18.94%</b>
<b>Median</b>	<b>17.83%</b>
<b>Midpoint</b>	<b>15.14%</b>

8 **B. Fama-French 3-Factor Model Analysis**

9 Q PLEASE DESCRIBE THE FAMA-FRENCH THREE-FACTOR MODEL.

10 A The Fama-French 3-Factor model is a standard approach used by many  
11 financial firms to estimate the cost of equity capital using both stock market  
12 data and accounting data. The model essentially expands on the CAPM to  
13 address the CAPM's observed underestimation of returns for smaller firms.  
14 Exhibit IT-4, Schedule 6, provides a "plain English" introduction to risk,  
15 return, and the Fama-French model.

1 Q BEFORE YOU DISCUSS THE FAMA-FRENCH MODEL, PLEASE  
2 DESCRIBE THE CAPM AND ITS USE IN ESTIMATING THE COST  
3 OF EQUITY.

4 A The CAPM is based on the relationship between portfolio risk and  
5 return. The model states that the expected return on any stock is directly  
6 proportional to its risk relative to the market portfolio. The CAPM is known  
7 as a "one-factor" model, because the expected return is estimated solely as a  
8 function of the market risk premium. No other explanatory factors are  
9 included to determine expected returns. Specifically, the expected return  
10 investors require can be estimated as the risk-free rate of return, plus a risk-  
11 premium based on: 1) the overall expected return premium of the market  
12 over the risk free rate, and 2) the co-movement of the return on the individual  
13 security and the return on the market, relative to the volatility of the overall  
14 return in the market. Mathematically, the CAPM can be written as:

$$15 \quad K = R_f + \beta [ \text{MRP} ] \quad (14)$$

16 where:  $K$  = expected return on equity, MRP is the "Market Risk Premium," or  
17 the expected return on the broad market portfolio in excess of the risk-free  
18 rate of interest,  $R_f$ , and  $\beta$  is "Beta," which reflects the correlation of the  
19 individual stock return and the market return.

1           Equation (14) states that, in equilibrium, every security is priced so it  
2           lies along a straight line, called the *security-market line*. Along this line, the  
3           required risk premium for any security equals the quantity of risk (measured  
4           by  $\beta$ ) times the price of risk (measured as the slope of the security-market  
5           line).  $K$  represents the return expected by investors given the firm's level of  
6           non-diversifiable risk relative to the market as a whole.

7   **Q   PLEASE EXPLAIN HOW THE FAMA-FRENCH MODEL IS RELATED**  
8   **TO THE CAPM.**

9   **A           The Fama-French methodology extends the CAPM in order to remedy**  
10   **CAPM's deficiencies in explaining real-world data.<sup>30</sup> Specifically, the CAPM**  
11   **tends to underestimate expected returns for "small" firms. Professors Fama**  
12   **and French understood that smaller firms have higher stock returns, on**  
13   **average, than large firms. They also discovered that firms with a high book**  
14   **value of assets (relative to the stock market value of the assets) have higher**  
15   **stock returns, on average, than firms with low book value of assets (relative to**

---

<sup>30</sup> See, Fama, E. and K. French, 1992, "The Cross-Section of Expected Stock Returns", *Journal of Finance*, 47, 427-465; Fama, E., and K. French, 1993, "Common Risk Factors in the Returns on Stocks and Bonds", *Journal of Financial Economics* 33:3-56; Fama, E., and K. French, 1995, "Size and Book-to-Market Factors in Earnings and Returns," *Journal of Finance* 50:31-155; Fama, E., and K. French, 1996, "Multifactor Explanations of Asset Pricing Anomalies," *Journal of Finance* 51:55-184; and Fama, E., and K. French, 1998, "Value versus Growth: The International Evidence," *Journal of Finance* 53:1975-1999.

1 the stock market value of the assets). Further, they recognized that these two  
2 additional factors—size and the book-to-market value of equity—were not  
3 incorporated into predictions emanating from the CAPM and hence cost of  
4 capital estimates would likely be underestimated for all but the largest  
5 growth (low book-to-market) firms. The Fama-French model incorporates  
6 these two additional factors into the CAPM, hence the “3-factor”  
7 identification. Fama and French have shown that their three-factor model  
8 results in more accurate estimates of the cost of equity for firms such as ITC.

9 **Q IS THERE EVIDENCE THAT CORPORATIONS RECOGNIZE A NEED**  
10 **TO USE ADDITIONAL FACTORS IN ESTIMATING EQUITY**  
11 **RETURNS?**

12 **A** Yes. Professor John Graham and Professor Campbell Harvey, both of  
13 Duke University’s Fuqua School of Business, have found that smaller  
14 companies are much less likely to use the CAPM to estimate the cost of equity  
15 capital than are larger companies.<sup>31</sup> This finding, based on a survey of 392  
16 Chief Financial Officers (“CFOs”), is consistent with the belief that the CAPM  
17 does not provide an adequate methodology for equity cost of capital  
18 calculations for smaller firms.

---

<sup>31</sup> See, Graham, J., and C. Harvey, 2001, “The theory and practice of corporate finance: Evidence from the field.” *Journal of Financial Economics* 60:187-243.

1 Q PLEASE ELABORATE ON THE COMMON USE OF THE FAMA-  
2 FRENCH MODEL TO ESTIMATE ROE.

3 A The use of the Fama-French three-factor model not only has been  
4 widely accepted in academic finance literature,<sup>32</sup> but also has been  
5 incorporated into introductory finance textbooks.<sup>33</sup> Furthermore, the Fama-  
6 French methodology is commonly used to estimate ROE by finance  
7 practitioners. For example, Ibbotson Associates, one of the most widely used  
8 sources of ROE estimates in the finance industry, reports cost of capital  
9 estimates based of the Fama-French three-factor model.<sup>34</sup>

10 Q ARE THERE OTHER INSTANCES WHEN THE FAMA-FRENCH  
11 ANALYSIS APPLIED?

---

<sup>32</sup> See, e.g., Cummins, J. D. and R. Phillips, 2005, "Estimating the Cost of Equity Capital for Property-Liability Insurers," *Journal of Risk & Insurance* 72:441-478; Griffin, J., 2002, "Are the Fama and French Factors Global or Country Specific?" *Review of Financial Studies*, 15:783-803; Petkova, R., 2006, "Do the Fama-French Factors Proxy for Innovations in Predictive Variables?" *Journal of Finance* 61:581-612; and Lakonishok, J. and L. Chan, 2004, "Value and Growth Investing: Review and Update" *Financial Analysts Journal*, 60: 71-86.

<sup>33</sup> For example, two of the most popular MBA finance textbooks both contain a discussion of the use of the Fama-French Three-Factor Model in estimating ROE. See, Brealey, R., S. Myers, and F. Allen, 2006, *Principles of Corporate Finance*, 8th edition, McGraw Hill-Irwin, New York, and Z. Bodie, A. Kane, and A. Marcus, 2005, *Investments*, 6<sup>th</sup> Edition, McGraw Hill-Irwin, New York.

<sup>34</sup> See <http://corporate.morningstar.com/ib/asp/subject.aspx?xmlfile=1426.xml>.

1     **A**           Investment professionals commonly use the Fama-French framework,  
2           even in cases where the model is not used explicitly. For example,  
3           Morningstar, the mutual fund rating company, classifies stocks and mutual  
4           funds based on the Fama-French factors. They categorize funds as belonging  
5           to one of nine “style boxes.” The firm identifies the primary investment  
6           activity of a fund along two dimensions: market capitalization and “style,”  
7           where “style” is based on the book-to-market value of equity. MSCI Barra, a  
8           finance industry leader in calculating stock and bond indexes, notes that,

9                   Academic research pioneered by Nobel Laureate William  
10                  Sharpe, and continued by Eugene Fama, Kenneth French and  
11                  others have confirmed the validity of the growth/value  
12                  distinction in terms of differential returns over time. The sole  
13                  criterion for the S&P/Barra Growth/Value split is the book  
14                  value of a common equity divided by the market  
15                  capitalization of a firm.<sup>35</sup>

16    **Q**        **PLEASE EXPLAIN THE SPECIFICATION OF THE FAMA-FRENCH**  
17            **THREE-FACTOR MODEL.**

18    **A**           Whereas the CAPM is solely a function of the risk-free rate and the  
19           MRP, the Fama-French model can be written as

20                   
$$K = R_f + \beta [ MRP ] + \beta_{size} [ SMB ] + \beta_{value} [ HML ], \quad (15)$$

---

<sup>35</sup> See <http://www.msccibarra.com/products/indices/snp/index.jsp>.

1 where  $K$ ,  $MRP$ ,  $R_f$ , and  $\beta$  are defined as before. The two additional factors,  
2 **SMB (small minus big) and HML (high minus low)**, measure the returns to  
3 portfolios of stocks chosen based on market capitalization and the ratio of  
4 market value to book value, respectively.  $\beta_{size}$  and  $\beta_{value}$  measure the  
5 sensitivity of the stock to those two factors.

6 **Q IN THE FAMA-FRENCH MODEL, HOW ARE THE SMB AND HML**  
7 **FACTORS CALCULATED?**

8 **A** The Fama-French SMB and HML benchmark portfolios are based on  
9 two independent sorts of all stocks listed on the NYSE, AMEX and NASDAQ  
10 exchanges. One sort is based on the size (market equity or ME) of the firm.  
11 Firms with market equity below (above) the NYSE median equity are  
12 classified as "Small" ("Large"). The other sort is on book-to-market (the ratio  
13 of book equity to market equity, BE/ME) for the firm. Firms with a BE/ME  
14 ratio in the top 30% of all NYSE-listed firms are classified as "Value," firms in  
15 the bottom 30% are labeled "Growth" and the remainder categorized as  
16 "Neutral." From these sorts, six portfolios are formed: Small Value, Small  
17 Neutral, Small Growth, Large Value, Large Neutral and Large Growth. The  
18 Fama-French SMB (small minus big) factor is formally defined as the average  
19 return on the three small portfolios minus the average return on the three big  
20 portfolios:

1                   SMB = 1/3 (Small Value + Small Neutral + Small Growth)  
2                                   - 1/3 (Big Value + Big Neutral + Big Growth)                   (16)

3           The HML (high minus low) factor is defined as average return on the two  
4           value portfolios minus the average return on two growth portfolios:

5                   HML = ½ (Small Value + Big Value)  
6                                   - ½ (Small Growth + Big Growth)                   (17)

7           The SMB and HML factors are correlated with economic risk factors that  
8           affect the cost of capital of a firm but are not included in the CAPM.<sup>36</sup>

9   **Q    IS THE FAMA-FRENCH DEFINITION OF "SMALL CAP" THE SAME**  
10 **AS THE DEFINITION USED BY THE VALUE LINE INVESTMENT**  
11 **SURVEY?**

12 **A    No. As mentioned above, firms with market equity below the NYSE median**  
13 **equity are classified as "small" in constructing the Fama-French factors. As of**  
14 **December 29, 2006, firms with a market capitalization of less than**  
15 **approximately \$2.2 billion would be sorted into one of the three "small"**

---

<sup>36</sup> For example, see Heaton, J. and D. Lucas, 2000, "Portfolio Choice and Asset Prices: The Importance of Entrepreneurial Risk," *Journal of Finance* 55:1163-1198, and Vassalou, M. and J. Liew, 2000, "Can Book-to-Market, Size and Momentum Be Risk Factors That Predict Economic Growth?" *Journal of Financial Economics* 57:221-245. Heaton and Lucas demonstrate that investors demand a substantial premium to hold value stocks, while Liew and Vassalou, among others, link value and small-firm returns to macroeconomic events that should affect risk premiums.

1 Fama-French portfolios. In contrast, Value Line currently classifies any firm  
2 with a market capitalization of \$1 billion or less as a "small cap" stock.

3 **Q IS THE FAMA-FRENCH BETA THE SAME AS THE CAPM BETA?**

4 **A** No. Although both are multiplied by the MRP, these two betas should  
5 be interpreted differently. Because the Fama-French model includes two other  
6 factors, the CAPM beta and Fama-French beta cannot be compared directly.  
7 Essentially, one can think of the CAPM beta as embedding all of the factors  
8 affecting return. Since the Fama-French model adds two additional "beta"  
9 values, the estimated beta value for MRP in the Fama-French model will not  
10 be comparable to the beta value in the CAPM.

11 **Q PLEASE DESCRIBE THE DATA YOU USED TO OBTAIN YOUR**  
12 **FAMA-FRENCH RETURN ON EQUITY ESTIMATE.**

13 **A** As I described above, the Fama-French analysis requires data on three  
14 stock portfolios: MRP, SMB, and HML. I used the daily returns of these  
15 portfolios, as computed by Professor Kenneth French. These data are  
16 available on his official website hosted by Dartmouth College.<sup>37</sup> The analysis  
17 also requires an estimate of the risk-free interest rate, for which I use the

---

<sup>37</sup> Available at:

[http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data\\_library.html](http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html). (Last accessed March 3, 2007).

1 forecast rate for 2007-2011 of 4.79%, as published in the December 2006 issue  
2 of Blue Chip Financial Forecasts.<sup>38</sup>

3 I also use the average annual returns for these portfolios over the 1927-  
4 2006 period, as computed by Professor French, to estimate the MRP, SMB  
5 premium, and HML premiums. Fama-French use as their risk-free rate  
6 returns on one-month Treasury bills. Over the entire 80-year period, the  
7 average return on the market was 12.07%, while the average return on one-  
8 month Treasury bills was 3.77%. As a result, the historic MRP is 8.30% per  
9 year. Similarly, the 80-year average SMB premium is 3.72% per year, and the  
10 HML premium is 5.22% per year.

11 **Q PLEASE DESCRIBE THE CALCULATIONS REQUIRED TO**  
12 **ESTIMATE A RETURN ON EQUITY FOR ITC USING THE FAMA-**  
13 **FRENCH MODEL.**

14 **A** I used linear regression methods to estimate the  $\beta$ ,  $\beta_{size}$ , and  $\beta_{value}$   
15 coefficients in equation (15), based on daily stock price data between August  
16 1, 2006 and December 29, 2006. The estimated coefficient values are:  $\beta = 0.85$ ,  
17  $\beta_{size} = 0.49$  and  $\beta_{value} = 0.16$ .

18 **Q WHY DID YOU CHOOSE A SAMPLE PERIOD FROM AUGUST 1,**  
19 **2006 TO DECEMBER 29, 2006 FOR YOUR ESTIMATES?**

---

<sup>38</sup> Blue Chip Financial Forecasts, Vol. 25, No. 12, December 2006, at 14.

1     **A**           **The ending date of the sample was chosen based on availability of the**  
2           **daily stock portfolio data from Professor French’s website. Those data end on**  
3           **December 29, 2006. Prof. French updates these data annually.**

4           **There are two distinct reasons why I chose August 1, 2006 as my start**  
5           **date. First, I wanted to include data only for the period most representative of**  
6           **ITC’s current business profile. On July 18, 2006, FERC approved**  
7           **ITC*Transmission’s* forward-looking attachment O request to set rates on a**  
8           **prospective rather than historical basis. At that time, ITC’s stock price rose**  
9           **substantially as investors apparently re-evaluated the company’s prospects.**  
10          **This can be seen in Exhibit IT-4, Schedule 7. In fact, I also performed a**  
11          **number of regression analyses to check for an optimum “break” date. The**  
12          **results of that analysis indicated a date of July 19, 2006. I excluded data prior**  
13          **to this date and, to be conservative, I excluded data for the remainder of the**  
14          **month of July 2006 to remove any effects of this one-time event from the data.**

15               **Second, had I included earlier stock price data, the accuracy of my**  
16               **analysis would have been adversely affected by a lack of active trading.**  
17               **From January 1, 2006 to July 18, 2006, trading activity for ITC averaged**  
18               **approximately 123,000 shares per day, while since that date through the end**  
19               **of 2006, daily trading activity has averaged nearly 210,000 shares per day, a**

1           70% increase. If a stock is not actively traded, none of the standard financial  
2           models, whether DCF, CAPM, or Fama-French, will be accurate.

3   **Q        WAS THIS LACK OF ACTIVE TRADING ALSO RECOGNIZED BY**  
4           **FINANCIAL ANALYSTS?**

5   **A            Yes. The lack of an active trading for ITC stock was noted at the time**  
6           **by research analysts at Credit Suisse, an investment banking firm:**

7                    *"ITC's stock is relatively illiquid right now. Trading volumes*  
8                    *have been trending down since the IPO as have total monthly*  
9                    *dollar values traded...We believe limited liquidity is*  
10                   *intimidating for new investors looking to add positions..."<sup>39</sup>*

11 **Q        PLEASE DISCUSS THE RESULTS OF YOUR FAMA-FRENCH**  
12 **RETURN ON EQUITY ANALYSIS.**

13 **A            In estimating an ROE value using the estimated coefficients in**  
14 **equation (15), one is confronted with a question as to what input values are**  
15 **most appropriate, in other words, what values of MRP, SMB, and HML**  
16 **should be used. For example, using only the historic averages in equation**  
17 **(15) results in a ROE estimate of:  $3.77\% + 0.85 \times 8.29\% + 0.49 \times 3.72\% + 0.16 \times$**   
18  **$5.22\% = 13.48\%$ .**

19                    *Ideally, I would also want to estimate a ROE estimate based solely on*  
20 **forecast values of MRP, SMB, and HML. However, forecasts for future SMB**

---

<sup>39</sup> "Solid Q4 06 Capex Up," Credit Suisse Equity Research report, March 16, 2006.

1 and HML portfolio performance, beyond that predicted by the historical  
2 average, are not available. Moreover, there is also the question of the most  
3 appropriate risk-free rate, since returns on Treasury bills tend to be volatile.

4 For example, the current forecast yield on short-term Treasury bills,  
5 which according to the March 2007 issue of Blue Chip Financial Forecasts, is  
6 5.0%, over 120 basis points higher than the long-term average value. Using  
7 this value as the risk-free rate in equation (15), and assuming the historic  
8 values of MRP, SMB, and HML are reasonable forecasts for the future, the  
9 estimated ROE for ITC increases to 14.71%. Finally, one can also assume that  
10 the return on the market is independent of interest rates (i.e. the MRP is  
11 fixed). In that case, any increase in the risk-free rate will equally reduce the  
12 MRP. This assumption implied a ROE value for ITC of:  $5.0\% + 0.85 \times$   
13  $(12.07\% - 5.0\%) + 0.49 \times 3.72\% + 0.16 \times 5.22\% = 13.67\%$ . The average of these  
14 three values is 13.95%, as shown in Table 9 below.

15 **Table 9: Fama-French Model Results for ITC**

<b>Average</b>	<b>13.95%</b>
<b>Minimum</b>	<b>13.48%</b>
<b>Maximum</b>	<b>14.71%</b>
<b>Median</b>	<b>13.67%</b>
<b>Midpoint</b>	<b>14.10%</b>

1 **Q IS THE RETURN ON EQUITY ESTIMATE YOU DERIVED USING**  
2 **THE FAMA-FRENCH MODEL CONSISTENT WITH THE RESULTS**  
3 **OF YOUR STAND-ALONE DCF ANALYSES FOR ITC?**

4 **A Yes. The range of estimates of my stand-alone DCF analyses for ITC**  
5 **was between 11.35% and 18.94%, with a midpoint value of 15.14%. My Fama-**  
6 **French ROE estimates range between 13.48% and 14.71%, an average of**  
7 **13.95%. All of the Fama-French estimates I derived fall within the “zone of**  
8 **reasonableness” I determined for the Midwest ISO group of utilities using the**  
9 **FERC DCF-electric and my QDCF models.**

10 **C. Summary and Recommendations**

11 **Q PLEASE SUMMARIZE THE RETURN ON EQUITY ESTIMATES YOU**  
12 **HAVE DERIVED.**

13 **A All of the ROE estimates I derived are summarized in Exhibit IT-4,**  
14 **Schedule 8. As this schedule shows, the overall zone of reasonableness for**  
15 **the Midwest ISO group utilities lies between 7.00% and 14.96%. The range of**  
16 **results of the stand-alone DCF estimates for ITC lies between 11.35% and**  
17 **18.94%. The Fama-French analysis ranges between 13.48% and 14.71%.**

18 **Q BASED ON YOUR ANALYSIS, DO YOU BELIEVE THAT THE**  
19 **RETURN ON EQUITY REQUESTED BY ITC MIDWEST IS JUST AND**  
20 **REASONABLE?**

1     **A**            Yes. The 13.88% ROE requested by ITC Midwest and currently earned  
2                    by *ITCTransmission* is within the zone of reasonableness established using the  
3                    FERC DCF-electric model itself, as well as a broader set of DCF estimates.  
4                    Moreover, the 13.88% value is less than the midpoint of the ITC stand-alone  
5                    DCF estimates, as well as less than the average ROE value derived using the  
6                    Fama-French model. In all respects, therefore, a 13.88% value is consistent  
7                    with FERC's transmission pricing policies to promote new transmission  
8                    system investment.

9     **Q**            **HOW DO YOU JUSTIFY GRANTING ITC MIDWEST A HIGHER ROE**  
10                   **FOR EXISTING ASSETS, SINCE ITC MIDWEST WILL BE ASSUMING**  
11                   **OWNERSHIP OF TRANSMISSION ASSETS THAT CURRENTLY**  
12                   **EARN A 12.38% RETURN ON EQUITY OR LESS?**

13    **A**            Finance theory suggests that, all other things equal, transferring  
14                    ownership of an asset should not change the rate of return on that asset.  
15                    Something else must occur. For example, many generating plants that have  
16                    been transferred to unregulated owners, such as nuclear plants, have seen  
17                    significant operational improvements because of significant capital  
18                    investment and better operating procedures. In the case of ITC Midwest, the  
19                    Prepared Direct Testimony of ITC Midwest witness Richard Schultz states  
20                    that ITC's operating subsidiaries, including ITC Midwest, will make

1 economic transmission system investments when justified by consumer  
2 benefits – in addition to making required reliability investments – that will  
3 enhance operation of the IPL transmission system.<sup>40</sup> Moreover, it is my  
4 understanding that IPL had no intention of undertaking such economic  
5 investments.

6 **Q IN THAT CASE, SHOULD A HIGHER RETURN ON EQUITY FOR ITC**  
7 **MIDWEST BE LIMITED TO SPECIFIC ECONOMIC INVESTMENTS**  
8 **MADE BY ITC MIDWEST, RATHER THAN TO ALL OF THE IPL**  
9 **TRANSMISSION SYSTEM ASSETS?**

10 **A No. First, ITC Midwest plans major investments to the IPL**  
11 **transmission system that will increase that system’s overall operating**  
12 **efficiency and benefit Midwest ISO customers. That is rather a different**  
13 **situation than, say, a utility performing a required upgrade for reliability or**  
14 **performing minor economic upgrades that would not eliminate existing**  
15 **transmission constraints or permit siting of additional local generation.**  
16 **Moreover, if ITC Midwest’s allowed ROE is too low, or is applied only to a**  
17 **small subset of assets, ITC will not find it economic to proceed with the**  
18 **Transaction and purchase IPL’s transmission system assets.**

---

<sup>40</sup> See Prepared Direct Testimony of Richard Schultz, Exhibit No. IT-3, at 9; 21-24.

1 **VI. CAPITAL STRUCTURE**

2 **Q WHY IS AN EVALUATION OF CAPITAL STRUCTURE RELEVANT**  
3 **TO ASSESSING A REGULATED FIRM'S RETURN ON EQUITY?**

4 **A Capital structure affects financial risk. All else equal, a higher**  
5 **percentage of debt (lower percentage of equity) increases the financial risks**  
6 **for both owners of a firm's debt and equity. Debt holders have a senior claim**  
7 **on a firm's assets. As the percentage of debt increases, more investors share**  
8 **in that senior claim, which reduces the likelihood that each investor will**  
9 **receive his full contractual payment in the event of the firm's insolvency.**  
10 **Equity holders have a secondary claim on a firm's assets. Thus, in the event**  
11 **of insolvency, they receive no compensation until all debt holders are fully**  
12 **compensated. As the percentage of debt increases, the likelihood that equity**  
13 **shareholders will be compensated also decreases. That increases the financial**  
14 **risk to equity holders, who will demand a higher expected return to**  
15 **compensate for that greater financial risk.**

16 **Q WHAT IS ITC'S CURRENT CREDIT RATING?**

17 **A According to Standard & Poor's, ITC's overall credit rating is BBB. The**  
18 **specific credit rating for its most recent debt issuances on September 30, 2006**  
19 **was BBB-. The BBB- rating for these most recent debt issuances is significant**

1 because it is the lowest credit rating that is still considered investment grade.  
2 Any additional decline in the ratings of specific debt issuances would mean  
3 that ITC's debt issuances would be considered "junk." For a relatively new  
4 company seeking to grow rapidly, a junk bond rating would be a tremendous  
5 financial impediment and send a strong signal regarding the Company's  
6 financial risk.

7 **Q WHAT IS ITC MIDWEST'S PROPOSED CAPITAL STRUCTURE?**

8 **A** It is my understanding ITC Midwest proposes to target a capital  
9 structure that is 60% equity and 40% long-term debt.

10 **Q IS ITC MIDWEST'S PROPOSED CAPITAL STRUCTURE**  
11 **REASONABLE?**

12 **A** Yes. In forming ITC Midwest and issuing new stock, ITC needed to  
13 determine a financing structure that would present the least risk to its  
14 shareholders, given the expected returns from the purchase of IPL's  
15 transmission assets, while balancing the interests of transmission customers  
16 taking service using the ITC Midwest transmission facilities. Had ITC  
17 financed the acquisition of IPL's transmission assets solely with debt, the  
18 risks faced by existing shareholders would increase because they have a  
19 secondary claim on the firm's asset. Financing the acquisition primarily with  
20 debt would increase the likelihood of ITC's not being able to service that debt.

1           It could also result in ITC violating its existing debt covenants. Alternatively,  
2           were ITC to finance the purchase of the IPL assets solely with new equity,  
3           existing shareholders could see their equity investment overly diluted and  
4           ITC Midwest's WACC would increase.

5   **Q       HOW DOES THE PROPOSED CAPITAL STRUCTURE FOR ITC**  
6           **MIDWEST COMPARE WITH THE CAPITAL STRUCTURE OF THE**  
7           **MIDWEST ISO PROXY GROUP UTILITIES?**

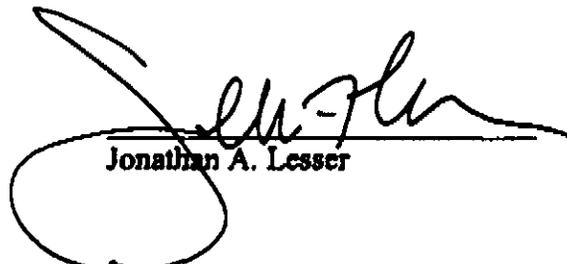
8   **A           ITC Midwest's proposed capital structure falls within the range of**  
9           **structures of the Midwest ISO proxy group. As shown in Exhibit IT-4,**  
10          **Schedule 5, the average year-end capital book value capital structure of the**  
11          **Midwest ISO group of utilities was about 47% debt (short-term plus long-**  
12          **term) and 53% equity (common plus preferred). The capital structures**  
13          **ranged widely. DTE Energy is the most levered of the Midwest ISO proxy**  
14          **group firms, with over 60% debt. MDU and Otter Tail, on the other hand,**  
15          **have the highest equity levels, at just over 63%. Thus, ITC Midwest's**  
16          **proposed capital structure falls within the range of the proxy group firms.**

17   **Q       DOES THIS CONCLUDE YOUR TESTIMONY?**

18   **A           Yes.**

**AFFIDAVIT OF JONATHAN A. LESSER**

I, Jonathan A. Lesser, being duly sworn, depose and say that the statements contained in the foregoing Prepared Direct Testimony on behalf of ITC Midwest LLC in this proceeding are correct to the best of my knowledge, information and belief.



Jonathan A. Lesser

Subscribed and sworn to before me this 2<sup>nd</sup> day of May, 2007.



Notary Public  
My Commission expires: 10/31/09

\_\_\_\_\_  
(NOTORIAL SEAL)