

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

* * * *

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for authority to increase its rates for)
the generation and distribution of)
electricity and for other relief.)
_____)

Case No. U-18322

QUALIFICATIONS AND DIRECT TESTIMONY OF
KAVITA BANKAPUR
MICHIGAN PUBLIC SERVICE COMMISSION

August 10, 2017

QUALIFICATIONS OF KAVITA BANKAPUR
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PART I

1 **Q. Please state your name, address and occupation.**

2 A. My name is Kavita Bankapur and my business address is 7109 West Saginaw,
3 Lansing, Michigan 48917. I am employed by the Michigan Public Service
4 Commission (MPSC or the Commission) as an Auditor in the Regulated Energy
5 Division.

6 **Q. Please outline your academic training.**

7 A. I graduated with a Bachelor degree in Business Administration (Accounting and
8 Auditing) and a Master's degree in Business Administration (Economics) from
9 the University of Mumbai in Mumbai, India. I have also obtained 24 Accounting
10 credits from Lansing Community College. Additionally, I attended both the basic
11 and advanced annual regulatory studies programs sponsored by the National
12 Association of Regulatory Utility Commissioners at Michigan State University in
13 2009 and 2010. I also participated in credit rating framework and methodology
14 training conducted by S&P in February 2010. I was also awarded the Tier 1
15 certificate of Continuing Regulatory Education in December 2014 from the
16 Institute of Public Utilities Regulatory Research & Education.

17 **Q. Do you have any professional licenses?**

18 A. Yes, I am a Certified Public Accountant (CPA) registered with the State of
19 Michigan.

20 **Q. Please describe your professional background prior to the MPSC.**

21 A. After passing the CPA exams in June 2007, I began work as an Audit Assistant at
22 the CPA firm Cindrach, Mahalak & Co. My duties mainly involved conducting
23 on site financial audits of credit unions. In June 2008, I began employment as a

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1 Credit Specialist with Comerica Bank. I was mainly responsible for underwriting
2 loans for small businesses. I was also responsible for performing various
3 departmental reporting functions such as loan covenant tracking, risk rating, credit
4 reviews and statement tracking. I also assisted lenders in processing loan
5 requests, collateral and cash flow analysis.

6 **Q. Please describe your current duties and responsibilities with the MPSC.**

7 A. Currently, I am an Auditor in the Regulated Energy Division. I have served as the
8 lead auditor, case coordinator and performed audit work on Power Supply Cost
9 Recovery (PSCR) reconciliations, Gas Cost Recovery (GCR) reconciliations,
10 Times Interest Earned Ratio (TIER) reconciliations and Revenue Decoupling
11 Mechanism (RDM) reconciliations. I have also worked on and provided
12 testimony on numerous rate cases on diverse topics such as Rate Base,
13 Depreciation, Net Utility Plant and Working Capital.

14 I began employment with the MPSC Staff (Staff) as a Financial Analyst in
15 December 2008. Among other things, I have worked on capital structure and cost
16 of capital analysis in utility company rate case applications. I also presented
17 quarterly and year end written reports on select utilities with financial information
18 and provided monthly inflation estimates used by the Financial Analysis & Audit
19 Division in every utility rate case. Further, I continue to monitor financial and
20 accounting news related to accounting trends, interest rates, inflation, general
21 economic factors and electric and natural gas industry news.

22 **Q. Have you previously presented testimony or been involved in proceedings**
23 **before the Michigan Public Service Commission?**

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1 A. Yes. I have filed testimony in the following proceedings:

2 U-17643: Consumers Energy Company- Utility Plant

3 U-17087: Consumers Energy Company - Rate Base (Plant & Working Capital)

4 U-16999: Michigan Consolidated Gas Company- Cost of Capital Analysis and
5 Recommendations

6 U-16830: Wisconsin Electric Power Company – Capital Structure and Working
7 Capital

8 U-16794: Consumers Energy Company – Capital Structure and Working Capital

9 U-16855: Consumers Energy Company – Capital Structure

10 U-16472: Detroit Edison Company - Capital Structure

11 U-16166: Upper Peninsula Power Company - Cost of Capital Analysis and
12 Recommendations.

13 U-16169: SEMCO Energy Gas Company - Capital Structure and Cost of
14 Capital Analysis and Recommendations.

15 U-16180: Indiana Michigan Power Company - Capital Structure and Cost of
16 Capital Analysis and Recommendations.

17 U-15981: Wisconsin Electric Power Company - Capital Structure and Cost of
18 Capital Analysis and Recommendations.

19 Also, I have been involved in the following settlement proceedings:

20 U-18051: Michigan Gas Utilities RDM

21 U-17331-R: Michigan Gas Utilities GCR

22 U-17673-R Northern States Power Company (PSCR)

23 U-17690-R: Michigan Gas Utilities GCR

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- 1 U-17473: Consumers Energy Company – Securitization of qualifying costs
- 2 U-17488: Northern States Power Company – Plant and Capital Expenditures
- 3 U-17564: Upper Peninsula Power Company – Acquisition by Balfour Beatty
- 4 Infrastructure Partners
- 5 U-17273: Michigan Gas Utilities – Plant and Capital Expenditures
- 6 U-16148-R: SEMCO Energy Gas Company - Gas Cost Recovery Audit
- 7 U-16969: SEMCO Energy Gas Company – Acquisition by Alta Gas Limited
- 8 U-16475: Northern States Power Company- Capital Structure and Cost of
- 9 Capital Analysis and Recommendations.
- 10 U-15990: Michigan Gas Utilities- Capital Structure and Cost of Capital Analysis
- 11 and Recommendations.
- 12 U-15988: Upper Peninsula Power Company- Capital Structure and Cost of
- 13 Capital Analysis and recommendations.
- 14 U-15795: Mergers and Acquisitions- Lead Analyst responsible for researching
- 15 data for M&A rules and definitions related to utilities as per PA 286.
- 16 U-15935: Alpena Power Company- Capital Structure and Cost of Capital
- 17 Analysis and Recommendations.
- 18
- 19
- 20

**DIRECT TESTIMONY OF KAVITA BANKAPUR
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PART II**

1 **Q. What is the purpose of your testimony in this proceeding?**

2 A. The purpose of my testimony is to present evidence that supports MPSC Staff's
3 recommendation with respect to Consumers Energy Company's (Consumers or
4 the Company) ratemaking capital structure, capital costs and the overall rate of
5 return that Consumers should be allowed to earn on its Michigan jurisdictional
6 electric utility rate base.

7 **Q. Are you sponsoring any Exhibits in this proceeding?**

8 A. Yes. I am sponsoring Exhibit S-4, which consists of 12 pages related to
9 Consumers Energy's capital structure, cost of capital and overall rate of return.

	<u>Schedule</u>	<u>Page</u>	<u>Title</u>
10			
11	D1	1	Capital Structure & Overall Rate of Return (Staff)
12	D2	1	Long-Term Debt- Cost Rate Estimate
13	D2	2	Long-Term Debt- Cost Rate Summary
14	D5	1	Proxy Group Corporate Statistics
15	D5	2	Proxy Group Common Equity Ratios
16	D5	3	Proxy Group Stock Price & Dividend Yield
17	D5	4	Proxy Group Projected Growth Rates
18	D5	5	Proxy Group DCF Results
19	D5	6	Proxy Group CAPM Results
20	D5	7	Proxy Group Risk Premium Results
21	D5	8	Summary of Cost of Equity Estimates
22	D5	9	ROE change

23 **Q. Was the proposed Exhibit S-4 prepared by you?**

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1 A. Yes.

2 **Q. Please describe the structure of your testimony.**

3 A. My testimony is presented in two sections. Section One describes the ratemaking
4 capital structure components and costs used to develop Staff's overall rate of
5 return recommendation. Section One corresponds to Schedule D1 and D2.

6 Section Two describes Staff's recommendation and development of the cost of
7 common equity and corresponds to pages 1-9 of Schedule D5 of Exhibit S-4.

8 **SECTION ONE – CAPITAL STRUCTURE AND COST OF CAPITAL**

9 **Q. Please describe the approach used to determine the overall rate of return.**

10 A. In order to estimate a just and reasonable overall rate of return, Staff employed
11 what is commonly referred to as the "cost of capital" method. The cost of capital
12 method identifies the various components of the ratemaking capital structure and
13 the corresponding percentages to the total company capitalization. The cost of
14 each capital component is then determined, or estimated, in order to develop a
15 weighted average cost of capital. The weighted average cost of capital is used in
16 estimating a just and reasonable overall rate of return. As such, it should be noted
17 that Staff's capital structure and corresponding cost rate estimates are developed
18 in order to determine a just and reasonable overall rate of return to be applied to
19 the utility rate base. Staff's projected test year capital structure is consolidated on
20 page 1 of Schedule D1.

21 **Q. What is Staff's recommendation regarding the overall rate of return?**

22 A. Staff is recommending a 5.82% overall rate of return for the projected 12 month
23 period ending September 30, 2018, as shown on page 1 of Schedule D1.

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1 **Q. What is the Company's requested overall rate of return?**

2 A. The Company is requesting a 6.16% overall rate of return for its projected 12
3 month period ending September 30, 2018.

4 **Q. What is the difference between Staff's recommendation and the Company's**
5 **request?**

6 A. The thirty-four basis point disparity in the respective overall rates of return is due
7 primarily to differences in the cost rates assigned to long-term debt and common
8 equity. These differences are outlined on page 1 of Schedule D1 and discussed
9 below. Staff's overall rate of return is based on the capital structure
10 recommended by the Company.

11 **Q. Please explain the difference between the long-term debt cost rate employed**
12 **by the Company and Staff.**

13 A. As outlined on page 1 of Schedule D2, the Staff estimate for annual cost of long-
14 term debt is 4.68% for the projected test year, as opposed to the Company's
15 projection of 4.82%.

16 The differences are reflected in lines 22, 23, 24 of page 1 of Schedule D2. Staff's
17 estimate of the interest rate for the new debt issuances planned in August 2017,
18 March 2018 and August 2018 is 4.36%. The Company has estimated 5%, 6% and
19 6.5%. Staff used Value line and Global insight to project its interest rates. The
20 difference in the cost rates of long-term debt between the Company and Staff is
21 because Staff used updated interest rates for its projections. This lowers the cost
22 of annual debt from the Company projection of 4.82% to Staff's projection of
23 4.68%.

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1 **Q. Please describe the difference between the return of equity employed by Staff**
2 **and the Company.**

3 A. Staff recommends a 9.80% return on equity within a range of reasonableness of
4 9% to 10%. The results of the equity analysis are summarized on page 8 of
5 Schedule D5 and are discussed in detail in section two of Staff testimony.

6 **SECTION TWO – RETURN ON EQUITY**

7 **Q. What cost of common equity is Staff recommending for Consumers?**

8 A. Staff prepared a cost of equity study with substantial evidence that strongly
9 supports the conclusion that a just and reasonable cost of common equity for
10 Consumers falls within the range of 9% to 10%. Based on my analysis and the
11 application of professional judgment, Staff recommending a 9.80% cost of
12 common equity for the projected test year. When compared to the Company's
13 proposed cost of equity, Staff's lower cost reduces the Company's revenue
14 deficiency by \$49 million.

15 **Q. What is the Company's requested cost of common equity?**

16 A. The Company is requesting a 10.50% return on equity, within the range of 10% to
17 11.00%.

18 **Q. What factors did Staff consider in preparing the common equity study for**
19 **the Company?**

20 A. The criteria for establishing a just and reasonable rate of return for public utilities
21 is rooted in the language in two landmark decisions by the United States Supreme
22 Court. In 1923, in *Bluefield Water Works and Improvement Co. vs. Public*
23 *Service Commission*, 262 US 679, (1923), the Court said:

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1 "A public utility is entitled to such rates as will permit it to earn a return on the
2 value of the property which it employs for the convenience of the public equal to
3 that generally being made at the same time and in the same part of the country on
4 investments in other business undertakings which are attended by corresponding
5 risks and uncertainties; but has no constitutional right to profits such as are
6 realized or anticipated in highly profitable enterprises or speculative ventures."
7

8 And, in 1944, in *Federal Power Commission vs. Hope Natural Case Company*

9 320 US 591, (1944) the Court said:

10 "From the investor or company point of view it is important that there be enough
11 revenue not only for operating expenses but also for the capital costs of the
12 business. These include service on the debt and dividends on the stock. By that
13 standard the return to the equity owner should be commensurate with returns on
14 investment in other enterprises having corresponding risks. That return,
15 moreover, should be sufficient to assure confidence in the financial integrity of
16 the enterprise, so as to maintain its credit and to attract capital."
17

18 Thus, the Supreme Court has made it clear that in establishing a just and
19 reasonable rate of return, consideration should be given to both investors and rate
20 payers. The standards of reasonableness that emerged from those cases were that
21 a utility is entitled to earn a return similar to those enterprises having
22 corresponding risk, but the return should not be so high as to place an unnecessary
23 burden on the ratepayers. The utility's earnings should be sufficient enough to
24 ensure investor confidence in the financial soundness of the enterprise, as well as
25 to support its credit and raise capital. The rate of return should also reflect
26 economic and financial market conditions. The Court did not, however, point to
27 any single formula or combination of formulas to arrive at the return.

28 **Q. What methods did Staff apply in its equity study in order to determine a**
29 **recommended rate of return on equity?**

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1 A. The legal guidelines of the Supreme Court in the *Hope* and *Bluefield* decisions
2 introduced basic approaches to be followed when determining the cost of
3 common equity, such as the “Attraction of Capital” or “Returns Commensurate
4 with Those on Investments in Enterprises of Comparable Risks” approaches. No
5 methodology provides the rate of return on common equity precisely, but certain
6 methods provide a reasonable estimate. Although a cost of common equity study
7 requires a certain amount of judgment on the part of the analyst, the formulas that
8 Staff used in its analysis examine pertinent market information that provides
9 quantitative support. The methodologies that Staff used to arrive at Consumers
10 cost of common equity include the Discounted Cash Flow (DCF) method, the
11 Capital Asset Pricing Model (CAPM) and the Risk Premium Approach. The DCF
12 and CAPM are widely used by regulatory agencies in deciding what rate of return
13 to permit regulated utilities to earn, as is the Risk Premium. Since, Consumers is
14 not publicly traded, a proxy group must be shaped in order to estimate certain
15 characteristics of the Company. As such, Staff developed a comparable proxy
16 group of companies for use in estimating certain characteristics of Consumers in
17 order to determine a just and reasonable cost of common equity.

18 **Q. Please describe the development of Staff’s proxy group of comparable**
19 **companies.**

20 A. To obtain a representative group of companies, Staff selected companies in SIC
21 code 4911 (electric services) and 4931 (electric & other services combined). The
22 selection criteria for the proxy group of companies include (a) net plant from \$5
23 billion to \$40 billion (b) Standard & Poor and Moody’s investment grade bond

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1 rating and (c) must be currently paying a common stock dividend, having done so
2 for at least 4 consecutive quarters and (d) none of the companies should be
3 currently involved in a merger, buyout or major acquisition. Eleven companies
4 met the criteria for the proxy group, as shown on page 1 of Schedule D5.

5 **Q. Please describe your conclusions regarding the proxy group of companies.**

6 A. The proxy group of companies outlined on page 1 of Schedule D5 provides a
7 reasonable representation of Consumers. As shown in column (e) and (f), the
8 S&P bond rating for the proxy group is investment grade (Consumers is
9 investment grade) and the Moody's bond rating is investment grade (Consumers
10 is investment grade). All else being equal, this would indicate that Consumers
11 Energy is of comparable risk to the proxy group, and the results of applying the
12 DCF and CAPM to the proxy group can be used in estimating Consumers cost of
13 common equity.

14 **Q. Please outline the credit ratings and risk of Consumers Energy.**

15 A. Consumers debt is rated by Standard & Poor's (S&P), Moody's Investors Service
16 (Moody's) and Fitch Ratings (Fitch). S&P currently rates Consumers senior
17 secured debt as 'A' with a stable outlook. An 'A' rating suggests that Consumers
18 has *strong capacity* to meet its financial commitments, but is somewhat more
19 susceptible to the adverse effects of changes in circumstances and economic
20 conditions than obligors with higher ratings. Moody's currently rates Consumers
21 senior secured debt as 'Aa3' with a stable outlook. A 'Aa3' rating suggests that
22 Consumers has a *very strong capacity* to meet its financial obligation. Fitch
23 currently rates Consumers senior secured debt as 'A+' with a stable outlook. A

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1 'A+' rating suggests that Consumers has *strong capacity* to meet its financial
2 commitments, but is somewhat more susceptible to the adverse effects of changes
3 in circumstances and economic conditions than obligors with higher ratings.

4 **Q. Please discuss the Discounted Cash Flow (DCF) cost of equity model.**

5 A. The DCF model is one of the oldest and most commonly used methods for
6 estimating the cost of equity for public utilities. The DCF is based on the
7 dividend discount model of financial theory. The dividend discount model
8 maintains that the value of any security is the discounted present value of all
9 future cash flows (i.e. dividends and ultimate sale in the case of common stocks).
10 The DCF is based upon two fundamental principles. First, the DCF is based on
11 the premise that investors value an asset on the basis of the future cash flows.
12 Second, the DCF is based on the assumption that investors value a dollar received
13 today more than a dollar received in the future (time value of money). The DCF
14 takes into consideration current conditions and investment risk. Within this
15 context, the current price of a given stock is equal to the present value of the
16 expected dividends and the proceeds from the ultimate sale of that particular
17 stock. The discount rate that makes the future dividends and ultimate sale price
18 equal to the current market price is the cost of common equity. Without going
19 into great detail about the derivation of the DCF formula, the final mathematical
20 equation states that the discount rate is equal to the dividend yield plus the growth
21 rate:

22
$$K = D1/P + g$$

23 Where: K = Cost of Equity

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1 D1 = Current Quarterly Dividend Rate Annualized

2 P = Market Price

3 g = Expected Growth Rate

4 **Q. Please describe the development of the inputs used in Staff's DCF analysis.**

5 A. In order to estimate the cost of common equity using the DCF method, an analyst
6 must estimate stock price, dividends and growth expectations.

7 **Stock Price and Dividend Data (the Dividend Yield for the DCF)**

8 Page 3 of Schedule D5 provides information regarding stock price, dividend rate
9 and the resulting dividend yield for the proxy group. The dividend yield was
10 calculated by using the 3-month average of the high and low prices for March,
11 April and May of 2017 (column f). The individual dividend rate was estimated by
12 annualizing the most recent quarterly common dividend (column h). Staff
13 adopted the most recent 3-month stock price and quarterly common dividend data
14 because an efficient market assumption implies that prices quickly adjust to the
15 introduction of new information. This implies that current market dividend data
16 and stock prices represent the fundamental value of a common stock investment.
17 The use of a 3-month average stock price captures current market data, while at
18 the same time helping to mitigate any market over-reactions existent at a specific
19 point in time. The resulting dividend yields are shown in column (i). The proxy
20 average dividend yield is 3.22%.

21 **Projected Growth Rates (DCF)**

22 Page 4 of Schedule D5 provides the growth rate estimates that investors are
23 expecting for the proxy group of companies. In order to forecast the growth rate

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1 component of the DCF, I equally weighted the projections for earnings estimates
2 provided by Yahoo Finance and Zacks (columns d and e) with the Value Line
3 projections for earnings growth and book value growth (columns f and g) for the
4 proxy group. The average growth rates are shown in column (h). The average
5 expected future growth rate for the proxy group is 5.2%.

6 **Q. Please describe Staff's adjusted DCF Model.**

7 A. Staff supports an adjusted DCF model known as the Semi-Annual Compounding
8 Model. This adjusted DCF model recognizes the timing of dividend payments
9 and that dividend increases and decreases at different points throughout the year,
10 which is particularly useful when the analysis is performed on a group of
11 companies. At any point in time during a twelve-month period, some companies
12 will increase dividends during the next few weeks, others at some time much later
13 in the year and the remainder spread out over the year. Therefore, for any one-
14 year period, an investor can expect dividends for the proxy group to increase at
15 the midpoint of the year. The implication is that the current dividend must be
16 adjusted by one-half the annual growth rate in order to arrive at the expected
17 dividend payment during the first year.

18 **Q. Please describe the results of the DCF cost of equity analysis.**

19 A. Page 5 of Schedule D5 provides the results of the DCF analysis. The adjusted
20 DCF cost of equity estimates are shown in column (g). The proxy results range
21 from a low of 7.27% to a high of 9.21%, with a median of 8.74% and an average
22 of 8.50%.

23 **Q. Please describe the Capital Asset Pricing Model (CAPM).**

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1 A. The CAPM evolved from the work of Sharpe and Lintner, and the model is
2 expressed as:

$$3 \quad K = R_f + B (R_m - R_f)$$

4 Where: K = Expected Rate of Return

5 R_f = Risk Free Interest Rate

6 B = Beta (systematic risk)

7 R_m = Expected Rate of Return on the Market

8 $(R_m - R_f)$ = Risk Premium

9 The CAPM describes the relationship between a security's investment risk and
10 its market rate of return. This relationship identifies the rate of return at which
11 investors expect a security to earn so that its market return is comparable with the
12 market returns earned by other securities that have similar risk. It can be shown
13 that the risk of a portfolio of assets as measured by its standard deviation of
14 returns is less than the average of the risks of the individual assets as measured by
15 their standard deviations. This has direct implications for the cost of capital.

16 Since investors generally hold portfolios of securities, not just one security, it is
17 reasonable to consider the risk of a security in terms of its contribution to the risk
18 of the portfolio rather than in terms of its risk if held in isolation. The risk of a
19 portfolio is divided into systematic risk (the part that cannot be eliminated through
20 diversification, otherwise known as market risk) and unsystematic risk (the part
21 that can be reduced through diversification). The systematic risk (market risk) of
22 a stock can be measured by its tendency to move with the general market. This
23 risk, as represented by beta, measures the extent to which the return on a stock

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1 moves with the market. By definition, market beta is 1.0. If a security's beta
2 equals 1.0, then, on the average, one can expect the stock rate of return to rise or
3 fall in direct proportion to changes in market returns. For example, if the overall
4 market return falls by one percentage point then the stock's rate of return would
5 be expected to fall by one percentage point.

6 **Q. Please describe the development of the inputs used in Staff's CAPM analysis.**

7 A. In order to estimate the cost of common equity using the CAPM method, an
8 analyst must estimate a forward-looking risk free interest rate, beta, expected
9 market returns and historical risk free interest rates.

10 **Risk Free Interest Rate – Forward Looking (CAPM)**

11 As a group, investors are averse to risk and the required return of a particular
12 stock increases as the risk of that stock increases. The security that would require
13 the smallest return is the risk-free security. Government securities are commonly
14 thought of as being risk-free instruments. In order to establish a risk-free rate of
15 return, Staff reviewed the forecasted yield on 30-year U.S. Treasury Securities as
16 published by Value Line and Global Insight for the test period ended September
17 30, 2018. As seen on page 6 of Schedule D5, Staff used a simple average of the
18 two data sources in order to estimate a risk-free interest rate of 3.49%.

19 **Beta (CAPM)**

20 Page 6 of Schedule D5 provides the beta values (column e) for the proxy group.
21 The beta of the proxy group is 0.68. The beta value is a relative measure of the
22 historical sensitivity of the stock's price to overall fluctuations in the New York
23 Stock Exchange Composite Index. A beta value below 1.0 indicates that a

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1 particular stock tends to rise and fall less than the average of the index. Specific
2 to this study, a beta value of 0.68 indicates that one would expect the stock prices
3 of the proxy group to rise and fall less than the average of the index.

4 **Market Returns and Historical Risk-Free Rate (the Risk Premium of CAPM)**

5 Page 6 of Schedule D5 provides information regarding stock market returns,
6 historical long-term government bond returns (historical risk-free rate) and the
7 resulting risk premium for the CAPM. The risk premium reflects the anticipated
8 incremental reward an investor expects to receive for investing in a risk-based
9 security. In order to estimate the risk premium, Staff reviewed *Ibbotson's 2017*
10 *Valuation Yearbook: Market Results for Stocks, Bonds, Bills and Inflation*. The
11 2017 edition includes the time period of 1926 through 2016. Using this data,
12 Staff calculated a risk premium for two distinct time periods. The first time
13 period uses the entire data set from 1926 through 2016 (columns e and g). The
14 second time period uses data from 1952 through 2016 (columns f and h). For the
15 period from 1952-2016, the average market return on common stocks was 12.17%
16 and the average long-term government bond return was 5.93%, producing a risk
17 premium of 6.24%. For the period of 1926-2016, the average market return on
18 common stocks was 11.95% and the average long-term government bond return
19 was 5.02%, producing a risk premium of 6.93%.

20 **Q. Please describe the results of the CAPM cost of equity analysis.**

21 A. Page 6 of Schedule D5 provides the results of Staff's CAPM study. For the 1952-
22 2016 time period, the proxy results range from a low of 7.23% to a high of 9.42%,
23 with a median of 7.55% and an average of 7.72%. For the 1926-2016 time

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1 period, the proxy results range from a low of 7.65% to a high of 10.07%, with a
2 median of 7.99% and an average of 8.18%.

3 **Q. Please describe the Risk Premium method of estimating the cost of equity.**

4 A. The Risk Premium approach is based on the premise that common stocks are
5 more risky than debt and, as a result, investors require a higher expected return on
6 stocks than on bonds. In this approach, the cost of equity is computed as:

7
$$K = Cd + Rp$$

8 Where: K = Cost of Equity

9 Cd = Cost of Debt

10 Rp = Risk Premium

11 **Q. Please describe the development of the inputs used in your Risk Premium**
12 **analysis.**

13 A. In order to estimate the cost of common equity using the Risk Premium method,
14 an analyst must estimate a utility-based cost of debt and a utility-based risk
15 premium.

16 **Cost of Debt (Risk Premium Method)**

17 Page 7 of Schedule D5 provides a current estimate of utility bond yields (cost of
18 debt) for the Risk Premium method. The average bond yield for A-rated utility
19 bonds is 4.01% while the average bond yield for Baa/BBB is 4.36%. These
20 estimates reflect market data for the 3-month period ending June 2017 as reported
21 by Value Line. The use of a 3-month average bond yield captures current market
22 data, while at the same time helps to mitigate any unpredictable and significant
23 bond market fluctuations that could occur on any given day.

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1 **Risk Premium (Risk Premium Method)**

2 Page 7 of Schedule D5 provides information regarding the electric utility market
3 return average, historical utility bond yields and the resulting spread on utility
4 market returns above utility bond yields (risk premium). The historical average
5 electric utility market return is 10.96%. The historical average utility bond yields
6 is 6.46%. The resulting spreads (risk premium) is 4.50%.

7 **Q. Please describe the results of the Risk Premium cost of equity analysis.**

8 A. Page 7 of Schedule D5 provides the results of the Risk Premium analysis. The
9 cost of equity estimates for the Risk Premium range from 8.51% (A-rated) to
10 8.86% (BBB-rated). The results of the Risk Premium analysis are slightly lower
11 than one would expect when taking a long term perspective because current bond
12 yields for both A-rated and BBB-rated utility bonds are below historical utility
13 bond yields.

14 **Q. Please summarize the results of the DCF, CAPM and the Risk Premium.**

15 A. Page 8 of Schedule D5 provides a summary of the quantitative results for the
16 DCF, CAPM and Risk Premium analyses. Page 8 of Schedule D5 also provides
17 data of recently awarded ROE's for shareholder-owned electric utilities as
18 reported by Edison Electric Institute (EEI). According to EEI, the average
19 awarded ROE's in 2016, 2015 and 2014 were 8.77%, 9.80% and 9.89%,
20 respectively. As the data reflect, there is a national trend towards lower
21 authorized ROE levels.

22 **Q. Please provide Staff's return on equity recommendation for Consumers**
23 **Energy.**

DIRECT TESTIMONY OF KAVITA BANKAPUR
CASE NUMBER U-18322
PART II

1 A. A just and reasonable rate of return on common equity falls within the range of
2 9% to 10% for the projected test year. Based on its analysis and application of
3 professional judgment, Staff recommends 9.80% return on common equity.

4 **Q. Please outline the basis for Staff’s return on equity recommendation?**

5 A. The proxy group fashioned in Staff’s study closely resembles Consumers in
6 several very important characteristics, including risk and permanent capital mix.
7 The Staff’s recommendation is largely based on the results of the cost of equity
8 studies for the proxy group of companies as previously discussed and on the
9 application of professional judgement. In addition, Staff’s recommendation
10 considered all factors contained in the Company’s application.

11 **Q. In determining a reasonable return on equity for Consumers, is it necessary**
12 **to place additional emphasis on the status of the national/ international**
13 **economy or financial markets?**

14 A. No. The proxy group is properly constructed to capture and reflect these factors
15 through comparable credit ratings. Credit rating agencies consider a multitude of
16 financial and business factors to assign a credit rating. These factors include the
17 effect of the local, state and national economic conditions.

18 **Q. Please outline the impact of Staff’s return on equity recommendation on the**
19 **Company’s jurisdictional revenue requirement?**

20 A. Based on the Company’s application, a one basis point change in ROE results in
21 \$698,000 impact on the jurisdictional revenue requirement.¹ The table below

¹ Consumers audit response to Staff. Exhibit S-4, Schedule D5, page 9

**DIRECT TESTIMONY OF KAVITA BANKAPUR
CASE NUMBER U-18322
PART II**

1 provides the jurisdictional revenue requirement impact of various changes to the
2 ROE. Staff's ROE recommendation is 9.80%, thus impacting the jurisdictional
3 revenue requirement by approximately \$49 million based on the Company's
4 request of 10.50%.

Change in ROE	Change in Jurisdictional Revenue Requirement
1 Basis point	\$698,000
5 Basis points	\$3,492,000
10 Basis points	\$6,983,000
25 Basis points	\$17,458,000
50 Basis points	\$34,915,000

5
6 **Q. Does this conclude your testimony?**

7 A. Yes.

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MICHIGAN PUBLIC SERVICE COMMISSION

Schedule D-1

Case No.: U-18322
 Exhibit: S-4
 Schedule D-1
 Witness: KBankapur
 Date: 8/10/2017
 Page: 1 of 1

Consumers Energy Company

Rate of Return Summary

Projected 12-Month Period Ending September 30, 2018

Recommended Capital Structure & Cost Rates

Line	Description (a)	Capital Structure			Weighted Cost				
		Amount Outstanding (000,000) (b)	% of Permanent Capital (1) (c)	% of Total Capital (d)	Cost Rate (e)	Permanent Capital (1) (f)	Total Cost % (g)	Conversion Factor (h)	Pre-Tax Wghtd Cost (i)
1	Long-Term Debt	\$ 5,880	46.79%	36.39%	4.68%	2.19%	1.70%	1.0000	1.70%
2	Preferred Stock	37	0.29%	0.23%	4.50%	0.01%	0.01%	1.6377	0.02%
3	Common Equity	6,649	52.91%	41.15%	9.80%	5.19%	4.03%	1.6377	6.60%
4	Total Permanent Capital	\$ 12,566	100.00%						
5	Short-Term Debt	161		1.00%	3.55%		0.04%	1.0000	0.04%
6	Deferred Income Taxes	3,340		20.67%	0.00%		0.00%	1.0000	0.00%
	<u>Investment Tax Credit</u>								
7	Long-Term Debt	43		0.27%	4.68%		0.01%	1.0000	0.01%
8	Preferred Stock	0		0.00%	4.50%		0.00%	1.6377	0.00%
9	Common Equity	48		0.30%	9.80%		0.03%	1.6377	0.05%
10	Total Capitalization	\$ 16,158		100.00%			5.82%		8.42%

<u>Line</u>	<u>Adjustment</u>
1	Long Term Debt cost rate changed from 4.82% to 4.68%
3	Common Equity changed from 10.50% to 9.80%
10	Overall cost of capital changes from 6.16% to 5.82%

MICHIGAN PUBLIC SERVICE COMMISSION

Schedule D-2

Case No.: U-18322
 Exhibit: S-4
 Schedule D-2
 Witness: Kbankapur
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Consumers Energy Company
 Cost of Long-Term Debt
 Projected 12-Month Period Ending September 30, 2018

Line	Description (a)	Original Issue Date (b)	Stated Maturity Date (c)	Interest Rate (d)	Interest Payments Per Year (d1)	Amount of Offering (\$000) (e)	Price To Public (f)	Under-Writers Compens (g)	Under-Writers Compens (\$000) (g1)	Finance Expense (g2)	Finance Expense (\$000) (g3)	(Premium) Discount (\$000) (g4)	Net Proceeds Received By Company (h)	Cost Based On Net Proceeds (i)	Average Amount Outstanding (\$000) (j)	Annual Cost (\$000) (k)
MORTGAGE BONDS:																
1	5.650%	24-Mar-05	15-Apr-20	5.650%	2	300,000	99.60%	0.750%	2,250.00	0.15%	444.93	1,188.00	98.706%	5.7794%	300,000	17,338.3
2	5.800%	11-Aug-05	15-Sep-35	5.800%	2	175,000	99.81%	0.875%	1,531.25	0.17%	299.97	337.75	98.761%	5.8879%	175,000	10,303.9
3	5.650%	14-Mar-08	15-Sep-18	5.650%	2	250,000	99.62%	0.650%	1,625.00	0.10%	248.60	957.50	98.868%	5.7954%	230,769	13,374.1
4	6.125%	15-Sep-08	15-Mar-19	6.125%	2	350,000	99.93%	0.650%	2,275.00	0.08%	290.40	245.00	99.197%	6.2303%	350,000	21,806.2
5	6.700%	06-Mar-09	15-Sep-19	6.700%	2	500,000	99.95%	0.650%	3,250.00	0.06%	296.40	240.00	99.243%	6.8016%	500,000	34,007.8
6	5.300%	01-Sep-10	01-Sep-22	5.300%	2	250,000	100.00%	0.362%	906.09	0.03%	72.90	0.00	99.608%	5.3446%	250,000	13,361.6
7	6.170%	01-Sep-10	01-Sep-40	6.170%	2	50,000	100.00%	0.906%	453.04	0.08%	38.99	0.00	99.016%	6.2430%	50,000	3,121.5
8	3.210%	15-Oct-10	15-Oct-17	3.210%	2	100,000	100.00%	0.500%	500.00	0.03%	34.02	0.00	99.466%	3.2961%	7,692	253.5
9	3.770%	15-Oct-10	15-Oct-20	3.770%	2	100,000	100.00%	0.500%	500.00	0.03%	34.02	0.00	99.466%	3.8348%	100,000	3,834.8
10	4.970%	15-Oct-10	15-Oct-40	4.970%	2	50,000	100.00%	0.500%	250.00	0.04%	19.58	0.00	99.461%	5.0049%	50,000	2,502.5
11	2.850%	08-May-12	15-May-22	2.850%	2	375,000	99.99%	0.650%	2,437.50	0.14%	543.30	33.75	99.196%	2.9432%	375,000	11,036.9
12	3.190%	17-Dec-12	16-Dec-24	3.190%	2	51,500	100.00%	0.501%	258.27	0.03%	17.63	0.00	99.464%	3.2443%	51,500	1,670.8
13	3.390%	17-Dec-12	15-Dec-27	3.390%	2	35,500	100.00%	0.501%	178.03	0.04%	13.76	0.00	99.460%	3.4364%	35,500	1,219.9
14	4.310%	17-Dec-12	15-Dec-42	4.310%	2	263,000	100.00%	0.501%	1,318.92	0.03%	68.78	0.00	99.472%	4.3416%	263,000	11,418.4
15	3.950%	17-May-13	15-May-43	3.950%	2	425,000	99.84%	0.875%	3,718.75	0.16%	675.43	667.25	98.809%	4.0187%	425,000	17,079.3
16	3.375%	09-Aug-13	15-Aug-23	3.375%	2	325,000	99.95%	0.650%	2,112.50	0.11%	373.54	165.75	99.184%	3.4721%	325,000	11,284.3
17	3.125%	18-Aug-14	31-Aug-24	3.125%	2	250,000	99.90%	0.650%	1,625.00	0.14%	349.86	255.00	99.108%	3.2297%	250,000	8,074.2
18	4.350%	18-Aug-14	31-Aug-64	4.350%	2	250,000	99.14%	0.875%	2,187.50	0.12%	309.64	2,157.50	98.138%	4.4430%	250,000	11,107.4
19	4.100%	06-Nov-15	15-Nov-45	4.100%	2	250,000	99.91%	0.875%	2,187.50	0.18%	447.46	217.50	98.859%	4.1669%	250,000	10,417.2
20	3.250%	10-Aug-16	15-Aug-46	3.250%	2	450,000	99.22%	0.875%	3,937.50	0.12%	541.44	3,501.00	98.227%	3.3440%	450,000	15,048.2
21	3.950%	22-Feb-17	15-Jul-47	3.950%	2	350,000	99.58%	0.875%	3,062.50	0.12%	420.00	1,463.00	98.587%	4.0309%	350,000	14,108.0
22	New Debt Issue #1	01-Aug-17	01-Aug-47	4.362%	2	425,000	100.00%	0.875%	3,718.75	0.12%	510.00	0.00	99.005%	4.4227%	425,000	18,796.3
23	New Debt Issue #2	01-Mar-18	01-Mar-48	4.362%	2	450,000	100.00%	0.875%	3,937.50	0.12%	540.00	0.00	99.005%	4.4227%	242,308	10,716.4
24	New Debt Issue #3	01-Aug-18	01-Aug-48	4.362%	2	350,000	100.00%	0.875%	3,062.50	0.12%	420.00	0.00	99.005%	4.4227%	53,846	2,381.4
25	Subtotal													4.5882%	5,759,615	264,263.1
PCRB'S:																
26	NEW PCRB - 88	26-Apr-88	26-Apr-18	1.316%	12	67,700	100.00%	0.00%	0.00	0.11%	74.81	0.00	99.889%	1.3205%	36,454	481.4
27	MSF LORB - 05	26-Apr-05	01-Apr-35	1.316%	12	35,000	100.00%	0.00%	0.00	0.13%	45.75	0.00	99.869%	1.3213%	35,000	462.5
	Subtotal													1.3209%	71,454	943.8
SENIOR NOTE:																
28	6.875%	06-Mar-98	01-Mar-18	6.875%	2	225,000	98.53%	0.88%	1,968.75	0.09%	203.42	3,307.50	97.565%	7.1049%	83,077	5,902.5
29	Subtotal													4.58%	5,914,146	271,109
30	Amortization of Losses on Reacquired Debt with Refunding (including Call Premium)															5,686
31	PCRB Fees															123
32	Total LTD before Unamortized Exp													4.68%	5,914,146	276,918
33	Unamortized Debt Discount, Expense and Premium															(33,694)
34	Total Long-Term Debt Balance														5,880,452	
35	Annual Cost													4.68%		

Line Staff Adjustment

- 22 Long-Term Debt Rate estimate from Exhibit S-4, Schedule D2 (page 2)
- 23 Long-Term Debt Rate estimate from Exhibit S-4, Schedule D2 (page 2)
- 24 Long-Term Debt Rate estimate from Exhibit S-4, Schedule D2 (page 2)

LT Debt - Cost Estimate

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
<u>Line No.</u>	<u>Measure</u>	<u>Q4 2017</u>	<u>Q1 2018</u>	<u>Q2 2018</u>	<u>Q3 2018</u>	<u>Average</u>	<u>Notes</u>
1	30 Year US Treasury (Global Insight)	3.19%	3.36%	3.45%	3.60%	3.40%	
2	30 Year US Treasury (Value Line)	3.30%	3.50%	3.70%	3.80%	3.58%	WP-KB-01
3	Average Debt Estimate	3.24%	3.43%	3.57%	3.70%	3.49%	
4	Interest Rate Spread	0.88%	0.88%	0.88%	0.88%	0.88%	WP-KB-02
5	LT Debt Estimate					4.36%	
6	Staff LT Borrowing Cost Estimate					4.36%	

Date Performed: June 14, 2017

Michigan Public Service Company

Consumers Energy Company

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**Proxy Companies
 Corporate Statistics**

(a)	(b)	(c)	(d)	(e)	(f)
Line No.	Company	Ticker Symbol	Net Utility Plant \$ millions	S&P IG Rated Bond	Moody's IG Rated Bond
1	Alliant Energy Corporation	LNT	9,420.0	Yes	Yes
2	Ameren Corporation	AEE	18,396.0	Yes	Yes
3	DTE Energy Company	DTE	14,521.0	Yes	Yes
4	Edison International	EIX	33,961.0	Yes	Yes
5	Eversource Energy	ES	18,025.0	Yes	Yes
6	OGE Energy Corp.	OGE	7,415.0	Yes	Yes
7	Pinnacle West Capital Corp.	PNW	12,492.0	Yes	Yes
8	Portland General Electric Company	POR	5,547.0	Yes	Yes
9	SCANA Corporation	SCG	12,074.0	Yes	Yes
10	WEC Energy Group	WEC	12,324.0	Yes	Yes
11	Xcel Energy Group	XEL	31,563.0	Yes	Yes
12	Proxy Average		15,976.2		
13	Consumers Energy	CMS	9,779.0	Yes	Yes

Proxy Selection Criteria:

- Must be in SIC Code 4911 (electric services) or SIC Code 4931 (electric & other services combined)
- Net Plant from \$5 billion to \$40 billion
- Bond Rating Criteria: Investment grade
- Must be paying a current common stock dividend, having done so for at least 4 consecutive quarters

Notes: Proxy Selection Performed with data available as of June 2017
 Great Plains Energy removed from proxy list as it contemplates a revised deal with Westar

**Proxy Companies
 Common Equity Ratios (%)**

(a) Line No.	(b) Company	(c) Ticker Symbol	(d) <u>2012</u>	(e) <u>2013</u>	(f) <u>2014</u>	(g) <u>2015</u>	(h) <u>2016</u>	(i) Average Ratio
1	Alliant Energy Corporation	LNT	48.4	50.8	47.5	51.4	47.2	49.1
2	Ameren Corporation	AEE	49.4	53.7	51.7	49.7	51.3	51.2
3	DTE Energy Company	DTE	51.2	52.3	50.0	49.8	44.4	49.5
4	Edison International	EIX	46.2	46.2	47.2	46.7	49.2	47.1
5	Eversource Energy	ES	55.4	54.8	53.2	53.6	54.4	53.5
6	OGE Energy Corp.	OGE	49.3	56.9	54.1	55.7	58.9	55.0
7	Pinnacle West Capital Corp.	PNW	55.4	60.0	59.0	57.0	54.4	57.2
8	Portland General Electric Company	POR	52.9	48.7	47.3	52.2	51.6	50.5
9	SCANA Corporation	SCG	45.6	46.4	47.4	48.1	46.9	46.9
10	WEC Energy Group	WEC	48.0	49.1	51.2	48.6	49.3	49.2
11	Xcel Energy Group	XEL	46.7	46.7	47.0	45.9	43.7	46.0
12	Proxy Average		49.9	51.4	50.5	50.8	50.1	50.5
13	Consumers Energy	CMS	51.2	51.1	50.0	50.5	51.1	50.8

Source: Value Line Report dated 04/28/2017, 05/19/2017, 06/02/2017 and 06/16/2017

Notes: * Com Equity Ratios calculated using the Value Line Method (Shareholder Equity / Total Capital). Data from P-521.
 ----- Total Capital = LT Debt, Preferred Stock & Common Equity

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**Proxy Companies
 3-month Average Stock Price and Dividend Yield**

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
Line		Ticker	High-Low Avg. Stock	High-Low Avg. Stock	High-Low Avg. Stock	Average 3-Month	Individual Dividend	Dividend
<u>No.</u>	<u>Company (ticker symbol)</u>	<u>Symbol</u>	<u>Price Mar- 17</u>	<u>Price April- 17</u>	<u>Price May-17</u>	<u>Price</u>	<u>Rate</u>	<u>Yield</u>
1	Alliant Energy Corporation	LNT	38.97	39.40	40.33	39.57	1.26	3.18%
2	Ameren Corporation	AEE	54.15	54.43	54.97	54.52	1.76	3.23%
3	DTE Energy Company	DTE	99.64	102.62	105.79	102.68	3.30	3.21%
4	Edison International	EIX	79.08	80.02	79.47	79.52	2.17	2.73%
5	Eversource Energy	ES	58.82	59.39	60.15	59.45	1.90	3.20%
6	OGE Energy Corp.	OGE	34.83	34.43	34.54	34.60	1.21	3.50%
7	Pinnacle West Capital Corp.	PNW	82.04	83.98	86.09	84.03	2.62	3.12%
8	Portland General Electric Company	POR	44.62	45.46	45.87	45.31	1.28	2.82%
9	SCANA Corporation	SCG	67.57	66.33	66.46	66.79	2.45	3.67%
10	WEC Energy Group	WEC	59.28	59.96	61.02	60.09	2.08	3.46%
11	Xcel Energy Group	XEL	43.30	44.38	45.89	44.52	1.44	3.23%
12	Proxy Average		60.21	60.94	61.87	61.01	1.95	3.22%

Source: Yahoo Finance (06/22/2017, 7/14/2017)

Dividend based on most recent quarter per Yahoo Finance (x4 to annualize the dividend)

**Proxy Companies
 Projected Growth Rates (%)**

(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
Line No.	<u>Company (ticker symbol)</u>	<u>Ticker Symbol</u>	<u>5-Year Yahoo Earnings</u>	<u>5-Year Zack's Earnings</u>	<u>5-Year ValueLine Earnings</u>	<u>5-Year ValueLine Book Value</u>	<u>Average Growth</u>
1	Alliant Energy Corporation	LNT	6.5	5.5	6.0	4.0	5.5
2	Ameren Corporation	AEE	6.1	6.5	6.0	3.5	5.5
3	DTE Energy Company	DTE	4.6	5.9	6.0	4.5	5.2
4	Edison International	EIX	4.1	6.3	3.0	4.5	4.5
5	Eversource Energy	ES	6.0	6.3	6.5	4.0	5.7
6	OGE Energy Corp.	OGE	6.3	5.3	5.5	3.5	5.2
7	Pinnacle West Capital Corp.	PNW	6.3	5.1	5.5	4.0	5.2
8	Portland General Electric Company	POR	5.6	5.3	6.0	3.5	5.1
9	SCANA Corporation	SCG	5.8	5.3	4.0	5.0	5.0
10	WEC Energy Group	WEC	5.6	6.0	6.0	5.0	5.7
11	Xcel Energy Group	XEL	-	5.4	4.5	4.0	4.6
12	Proxy Average		5.7	5.7	5.4	4.1	5.2

Sources: Zacks Investment Research (4/15/2010), Yahoo Finance (4/15/2010).
 Value Line Report dated 02/05/2010, 02/26/2010 and 03/26/2010

**Proxy Companies
 Estimated Cost of Equity
 Discounted Cash Flow (DCF) Model**

(a)	(b)	(c)	(d)	(e)	(f)	(g)
Line No.	Company (ticker symbol)	Ticker Symbol	Dividend Yield	Growth Rate	Cost of Equity DCF	Adjusted DCF
1	Alliant Energy Corporation	LNT	3.18%	5.49%	8.67%	8.76%
2	Ameren Corporation	AEE	3.23%	5.51%	8.74%	8.83%
3	DTE Energy Company	DTE	3.21%	5.25%	8.46%	8.54%
4	Edison International	EIX	2.73%	4.48%	7.21%	7.27%
5	Eversource Energy	ES	3.20%	5.70%	8.89%	8.98%
6	OGE Energy Corp.	OGE	3.50%	5.15%	8.65%	8.74%
7	Pinnacle West Capital Corp.	PNW	3.12%	5.22%	8.33%	8.41%
8	Portland General Electric Company	POR	2.82%	5.09%	7.91%	7.98%
9	SCANA Corporation	SCG	3.67%	5.03%	8.70%	8.79%
10	WEC Energy Group	WEC	3.46%	5.65%	9.11%	9.21%
11	Xcel Energy Group	XEL	3.23%	4.63%	7.87%	7.94%
12	Proxy Low Value					7.27%
13	Proxy Median					8.74%
14	Proxy Average		3.22%	5.20%	8.41%	8.50%
15	Proxy High Value					9.21%

DCF = Dividend Yield + Growth Rate

Adjusted DCF = (Dividend Yield)(1 + .5 Growth Rate) + Growth Rate
 aka Semi-Annual Compound Model

**Proxy Companies
 Estimated Cost of Equity
 CAPM Model**

(a) Line No.	(b) Company	(c) Value Line Beta	(d) Risk Free Rate	(e) 1926-2016 Risk Premium*	(f) 1952-2016 Risk Premium*	(g) 90-Year CAPM	(h) 64-year CAPM
1	Alliant Energy Corporation	0.70	3.49%	6.93%	6.24%	8.34%	7.86%
2	Ameren Corporation	0.65	3.49%	6.93%	6.24%	7.99%	7.55%
3	DTE Energy Company	0.65	3.49%	6.93%	6.24%	7.99%	7.55%
4	Edison International	0.60	3.49%	6.93%	6.24%	7.65%	7.23%
5	Eversource Energy	0.65	3.49%	6.93%	6.24%	7.99%	7.55%
6	OGE Energy Corp.	0.95	3.49%	6.93%	6.24%	10.07%	9.42%
7	Pinnacle West Capital Corp.	0.70	3.49%	6.93%	6.24%	8.34%	7.86%
8	Portland General Electric Company	0.70	3.49%	6.93%	6.24%	8.34%	7.86%
9	SCANA Corporation	0.65	3.49%	6.93%	6.24%	7.99%	7.55%
10	WEC Energy Group	0.60	3.49%	6.93%	6.24%	7.65%	7.23%
11	Xcel Energy Group	0.60	3.49%	6.93%	6.24%	7.65%	7.23%
12	Proxy Low Value					7.65%	7.23%
13	Proxy Median					7.99%	7.55%
14	Proxy Average	0.68				8.18%	7.72%
15	Proxy High Value					10.07%	9.42%

Source: Global Insight: US Economic Outlook 3.4
 Value Line: S&O: 3.58
 Average Risk Free Rate 3.49
 CAPM Formula: Risk Free Rate + Risk Premium * Beta

**Ibbotson SBBI 2017 publications

	Proxy Group (1926 - 2016)	Proxy Group (1952 - 2016)
Average Common Stock Return**	11.95%	12.17%
Average LT Government Bond Return**	5.02%	5.93%
Risk Premium (Rp)*	6.93%	6.24%

**Proxy Companies
 Estimated Cost of Equity
 Risk Premium Method**

(a) Line No.	(b)	(c)	(d)
1	Historical Electric Utility Market Return Average (1932 - 2016) ^{2,3}	10.96%	
2	Historical Utility Bond Yields(1932-2016) ⁴	6.46%	
3	Historical Spread (Risk Premium)	4.50%	
		<u>A- Rated</u>	<u>Baa/BBB- Rated</u>
4	Current estimated Utility Bond Yield (Cost of Debt) ¹	4.01%	4.36%
5	Historical Cost of Equity using Risk Premium(1+4):	8.51%	8.86%

Cost of Equity Estimate = Cost of Debt + Risk Premium

Notes:

Sources: ¹ Value Line Selected Yields:



	<u>A</u>	<u>Baa/BBB</u>
April 28, 2017:	4.06%	4.42%
May 26, 2017:	4.09%	4.44%
June 30, 2017:	3.88%	4.21%
Average:	4.01%	4.36%

² Mergent's (formerly Moody's) Public Utility Manual 2003 Edition (dec to dec gain/loss + yrly ave yield)

³ Data for 2003-2016: Dow Jones Utility Average Total Return Index from DJAverages.com

⁴ Mergent's (formerly Moody's) Public Utility Manual and Bond Record through 2016

**Proxy Companies
 Summary of Cost of Equity Estimates**

(a)	(b)	(c)	(d)
Line No.	Study	Measure	Proxy Results
1	DCF	Range	7.27% to 9.21%
2		Median	8.74%
3		Average	8.50%
4	CAPM: 1952	Range	7.23% to 9.42%
5		Median	7.55%
6		Average	7.72%
7	CAPM: 1926	Range	7.65% to 10.07%
8		Median	7.99%
9		Average	8.18%
10	Risk Premium	Range	8.51% to 8.86%
11		Median	8.68%
12		Average	8.68%
Staff recommended ROE Range			9.00% to 10.00%

Additional Information

Edison Electric Institute (EEI): (Rate case summary Q4 2016)	<u>Ave. Awarded ROE</u>	
	2016	8.77%
	2015	9.80%
	2014	9.89%
	2013	10.01%
	2012	10.22%

Consumers Energy Company

Case No: U-18322

Audit Request #087 - Change in Return On Equity
(000)

Case No.: U-18322

Witness: KBankapur

Exhibit No.: S-4

Schedule No.: D5

Date: 8/10/2017

Page: 9 of 9

Line	Description	Base Case	Scenario 1 1 BP change	Scenario 2 5 BP Change	Scenario 3 10 BP Change	Scenario 4 25 BP Change	Scenario 5 50 BP Change
1	Rate Base (1)	10,289,206	10,289,206	10,289,206	10,289,206	10,289,206	10,289,206
2	Pre-Tax Rate of Return	8.94%	8.94%	8.91%	8.88%	8.77%	8.60%
3	Revenue Requirement	920,273	919,575	916,781	913,290	902,815	885,357
4	Change in Revenue Requirement from Base		(698)	(3,492)	(6,983)	17,458	(34,916)

Source (1): Exhibit A-7 (JRF-5) Schedule B1

S T A T E O F M I C H I G A N
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

* * * *

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for authority to increase its rates for)
the generation and distribution of)
electricity and for other relief.)
_____)

Case No. U-18322

QUALIFICATIONS AND DIRECT TESTIMONY OF

ROBERT F. NICHOLS II, C.P.A.

MICHIGAN PUBLIC SERVICE COMMISSION

August 10, 2017

QUALIFICATIONS OF ROBERT F. NICHOLS II, C.P.A.
CASE NUMBER U-18322
PART I

1 Q. Please state your name and business address.

2 A. My name is Robert F. Nichols II, and my business address is 7109 West Saginaw
3 Highway, Lansing, MI 48917.

4 Q. By whom are you employed and in what capacity?

5 A. I am employed by the Michigan Public Service Commission (Commission or
6 MPSC) as the Manager of the Revenue Requirements Section of the Financial
7 Analysis and Audit Division.

8 Q. How long have you been employed by the MPSC and what are your duties?

9 A. I have been employed by the MPSC since November of 2011. As Manager of the
10 Revenue Requirements section, I am primarily responsible for the planning and
11 direction of electric and gas rate case audits and presentation, as well as cases
12 involving accounting standards and requests for accounting authority. From 2011
13 through March 2016, as an Auditor within the Revenue Requirements section, my
14 responsibilities included auditing, analyzing, and making recommendations
15 regarding utility revenues, expenses, and rate base.

16 Q. Please describe your educational background.

17 A. I graduated from Davenport University, with highest honors, in 2009 with a
18 Bachelor of Business Administration degree in Accounting Information
19 Management. I attended a regulation and ratemaking conference hosted by the
20 Michigan State University Institute of Public Utilities (MSU IPU) in May of
21 2012. In August of 2012, I attended the National Association of Regulatory
22 Utility Commissioners (NARUC) annual two week Regulatory Studies Program
23 held at Michigan State University. In August 2013, August 2014, August 2015,

QUALIFICATIONS OF ROBERT F. NICHOLS II, C.P.A.
CASE NUMBER U-18322
PART I

1 and August 2016, I attended the Annual Regulatory Studies Program hosted by
2 MSU IPU. I also attended a one week Advanced Regulatory Studies Program in
3 September of 2013, in September of 2014, and October of 2016, hosted by MSU
4 IPU.

5 Q. Please describe your professional background.

6 A. Prior to coming to the MPSC, from 2000 to 2011, I was employed by Genesee
7 Cut Stone & Marble Company. My duties there included sales, drafting, and
8 estimating.

9 Q. Do you have any professional licenses?

10 A. Yes. I am a Certified Public Accountant, licensed by the State of Michigan.

11 Q. Have you prepared testimony or assisted in any other proceedings?

12 A. I have assisted or filed testimony in the following cases:

<u>Case No.</u>	<u>Company</u>	<u>Subject/Type</u>
U-16855	Consumers Energy Co. Gas	Rate Case
U-16969	SEMCO Energy Gas Company	Merger and Acquisition
U-16794	Consumers Energy Co. Electric	Rate Case
U-16999	Michigan Consolidated Gas Co.	Rate Case
U-16855	Consumers Energy Co. Gas	Self-Implementation Refund
U-17087	Consumers Energy Co. Electric	Rate Case
U-17197	Consumers Energy Co. Gas	Rate Case
U-17273	Michigan Gas Utilities Corp.	Rate Case
U-17274	Upper Peninsula Power Co.	Rate Case
U-17440	Consumers Energy Co. Electric	Self-Implementation Refund

QUALIFICATIONS OF ROBERT F. NICHOLS II, C.P.A.
CASE NUMBER U-18322
PART I

1	U-17488	Northern States Power Co. Gas	Rate Case
2	U-16999	DTE Gas IRM	Reconciliation
3	U-17620	Consumers Energy Co.	OPEB Trust Funding
4	U-17643	Consumers Energy Co. Gas	Rate Case
5	U-17669	WPSC Electric	Rate Case
6	U-17735	Consumers Energy Co. Electric	Rate Case
7	U-17882	Consumers Energy Co. Gas	Rate Case
8	U-17999	DTE Gas Company	Rate Case
9	U-18014	DTE Electric Company	Rate Case
10	U-17990	Consumers Energy Co. Electric	Rate Case
11	U-18124	Consumers Energy Co. Gas	Rate Case

DIRECT TESTIMONY OF ROBERT F. NICHOLS II, C.P.A.
CASE NUMBER U-18322
PART II

1 Q. What is the purpose of your testimony?

2 A. The purpose of my testimony is to present the MPSC Staff's (Staff) projected
3 revenue deficiency, projected rate base, projected working capital, and projected
4 operating income in this case for Consumers Energy Company (Consumers
5 Energy or the Company). I will also be presenting Staff's position on the JR
6 Whiting Plant land donation, a correction to the Company's property model, and
7 the formal challenge pending under FERC Docket No. ER16-1188-000 related to
8 METC easement.

9 Q. Are you sponsoring any exhibits?

10 A. Yes. I am sponsoring the following exhibits:

11 Exhibits:

12 S-1 Schedule A1: Revenue Deficiency (Sufficiency)

13 S-2 Schedule B1: Projected Rate Base

14 S-2 Schedule B4: Projected Working Capital

15 S-3 Schedule C1: Projected Net Operating Income

16 S-3 Schedule C1.1: Development of Projected Net Operating Income

17 S-3 Schedule C12: Pro Forma Interest Adjustment

18 S-3 Schedule C13: Tax Effect of Interest Synchronization

19 S-10.0 Audit Response #2: Capital Expenditure Contingency

20 S-10.1 Audit Resp. #135: Civil Action – JR Whiting Plant Land Donation

21 S-10.2 Audit Response #192-193: Property Model Error

22 S-10.3 Audit Response #113: METC Easement

23

DIRECT TESTIMONY OF ROBERT F. NICHOLS II, C.P.A.
CASE NUMBER U-18322
PART II

REVENUE DEFICIENCY:

1
2 Q. Referring to Exhibit S-1, Schedule A1, what is Staff's projected total electric
3 revenue deficiency?

4 A. Staff's projected total electric revenue deficiency is \$22,062,000, a revenue
5 requirement decrease of \$156,311,000 from the Company's originally filed
6 revenue deficiency of \$178,373,000. Staff's projected jurisdictional electric
7 revenue deficiency is \$16,489,000, a revenue requirement decrease of
8 \$156,269,000 from the Company's originally filed jurisdictional revenue
9 deficiency of \$172,758,000. In addition to my testimony, other Staff witnesses
10 provide testimony and supporting exhibits regarding the adjustments to the
11 Company's electric revenue deficiency.

RATE BASE:

12
13 Q. Referring to Exhibit S-2, Schedule B1, what is Staff's projected total electric rate
14 base?

15 A. Staff's projected total electric rate base is \$10,249,691,000, a decrease of
16 \$82,977,000 from the Company's originally filed total electric rate base of
17 \$10,332,668,000. Staff's projected jurisdictional electric rate base is
18 \$10,206,705,000, a decrease of \$82,501,000 from the Company's originally filed
19 jurisdictional rate base of \$10,289,206,000. Adjustments to components of the
20 Company's rate base are provided in other exhibits supported by various Staff
21 witnesses.

22 Q. Referring to Exhibit S-2, Schedule B1, line 1, what is Staff's projected total
23 electric utility plant?

DIRECT TESTIMONY OF ROBERT F. NICHOLS II, C.P.A.
CASE NUMBER U-18322
PART II

1 A. Staff’s projected total electric utility plant is \$14,753,817,000, a decrease of
2 \$86,209,000 from the Company’s originally filed total electric utility plant of
3 \$14,840,026,000. Details of the difference between Staff and the Company’s
4 total utility plant can be found in the direct testimony of the corresponding
5 witness as found in Figure 1 below.

Figure 1		Total	Test Year Impacts From Staff Adjustment(s) to Cap Ex Projects				
(\$000)		CapEx Adj.	Plant Adj.	Accum. Dep.	Net RB	Deprec.	Prop. Tax
Staff Witness	Adjustment Description	Increase / (Decrease)	Increase / (Decrease)	Increase / (Decrease)	Increase / (Decrease)	Increase / (Decrease)	Increase / (Decrease)
Fromm	IT Non-Contingency	\$ (1,151)	\$ (771)	\$ (114)	\$ (658)	\$ (100)	\$ (9)
Fromm	IT Contingency (Exhibit S-10.0)	(3,179)	(2,193)	(201)	(1,992)	(285)	(26)
Simpson	Demand Response/AMI Switches	(8,148)	(4,404)	(94)	(4,310)	(169)	(52)
Laruwe	Electric Distribution	(59,308)	(35,887)	(1,423)	(34,464)	(2,010)	(428)
Evans	Energy Resources Non-Contingency	(8,519)	(15,416)	(804)	(14,611)	(773)	(184)
Evans/Fromm	Energy Res. Cont. (Exhibit S-10.0) (Evans 3.081 + Fromm 15.422)	(18,503)	(12,820)	(459)	(12,361)	(648)	(153)
Nichols	JR Whiting Land Donation	(161)	(161)	-	(161)	-	(63)
Nichols	Property Model Error	(14,557)	(14,557)	(138)	(14,419)	(282)	(76)
Total		\$ (113,526)	\$ (86,209)	\$ (3,232)	\$ (82,977)	\$ (4,266)	\$ (991)

7
8
9 Q. Referring to Exhibit S-2, Schedule B1, line 2, what is Staff’s total electric
10 depreciation reserve?

11 A. Staff’s total electric depreciation reserve is \$5,191,550,000 a decrease of
12 \$3,232,000 from the Company’s projected amount of \$5,194,782,000. This is the
13 direct result of the adjustments that Staff made to the Company’s capital
14 expenditure projections, as found in the table above.

DIRECT TESTIMONY OF ROBERT F. NICHOLS II, C.P.A.
CASE NUMBER U-18322
PART II

1 Q. Referring to Exhibit S-2, Schedule B4, line 21, what is Staff's total electric net
2 working capital?

3 A. Staff's total electric net working capital is \$729,131,000, which is equal to the
4 Company's projection.

5 **NET OPERATING INCOME:**

6 Q. Referring to Exhibit S-3, Schedule C1, what is Staff's total electric projected net
7 operating income?

8 A. Staff's projected total electric net operating income is \$583,348,000, an increase
9 of \$55,502,000 from the Company's originally filed net operating income of
10 \$527,845,000. Staff's projected jurisdictional electric net operating income is
11 \$584,247,000, an increase of \$55,652,000 from the Company's originally filed
12 jurisdictional net operating income of \$528,595,000. Details of Staff's
13 adjustments to net operating income, including the Staff witness sponsoring and
14 explaining the adjustment, can be found on Exhibit S-3, Schedule C1.1.

15 **DEPRECIATION & AMORTIZATION:**

16 Q. Referring to Exhibit S-3, Schedule C1, what is the projected test year depreciation
17 and amortization expense you are sponsoring?

18 A. Staff's projected total electric depreciation and amortization expense is
19 \$607,738,000, a decrease of \$4,266,000 from the Company's originally filed
20 projection of \$612,004,000. The adjustment is attributable to the impact that the
21 Staff adjustments to various capital expenditures has on projected depreciation
22 expense.

23

DIRECT TESTIMONY OF ROBERT F. NICHOLS II, C.P.A.
CASE NUMBER U-18322
PART II

1 **PROPERTY TAX:**

2 Q. Referring to Exhibit S-3, Schedule C1, what is Staff's projected total electric real
3 and personal property tax expense (property tax)?

4 A. Staff's projected total electric property tax is \$171,217,000, a decrease of
5 \$991,000 from the Company's originally filed projection of \$172,207,000. The
6 adjustment is attributable to the impact that the Staff adjustments to various
7 capital expenditures has on projected property tax expense.

8 Q. How is Staff's property tax adjustment calculated?

9 A. Staff has calculated the impact of the 1.19% property tax rate on the capital
10 expenditure adjustments supported by Staff witnesses. The 1.19% property tax
11 rate is found on the Company's Exhibit A-64 (BJV-1).

12 **JR WHITING LAND DONATION:**

13 Q. Has Staff removed from the revenue requirement the land at the JR Whiting Plant
14 which the Company has donated?

15 A. Yes. Exhibit S-10.1 is an audit response from the Company stating the JR
16 Whiting Plant land donation should be removed from the revenue requirement,
17 which Staff has done. The removal of the land reduces rate base by \$160,780 and
18 property tax by \$62,804.

19 **PROPERTY MODEL CORRECTION:**

20 Q. Has the Company identified an error in its filing related to the property model,
21 which Staff has corrected in its filing?

22 A. Yes. Exhibit S-10.2 is an audit response from the Company which identifies an
23 error in its property model, which Staff has corrected in its filing. The correction

DIRECT TESTIMONY OF ROBERT F. NICHOLS II, C.P.A.
CASE NUMBER U-18322
PART II

1 reduces rate base by \$14,419,000, depreciation expense by \$282,000, and
2 property tax expense by \$76,000 for the projected test year.

3 **CHALLENGE PENDING UNDER FERC DOCKET No. ER-16-1188**

4 **RELATED TO METC EASEMENT:**

5 Q. Company witness Harry’s direct testimony addresses a formal challenge pending
6 under FERC Docket No. ER16-1188-000, which could increase the revenue
7 requirement in base rates. Mr. Harry’s direct testimony, page 17, states, “If the
8 outcome of FERC Docket No. ER16-1188 requires a change in the accounting of
9 the land, land rights, and lease revenue prior to a final order issued in this
10 proceeding, Consumers Energy proposes that the impact of that change be
11 reflected in the final order.” Does Staff support the Company’s proposal?

12 A. Yes. Exhibit S-10.3 calculates a revenue requirement increase of \$1.8 million if
13 the disputed assets and offsetting lease revenue are removed from base rates. If
14 the outcome of the FERC Docket ER16-1188 requires Consumers to include the
15 disputed assets and offsetting lease revenue in the Attachment O formula rate
16 filing, Staff supports removing them from base rates in the instant case.

17 Q. Does this conclude your testimony?

18 A. Yes.

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

* * * *

In the matter of the application of)
CONSUMERS ENERGY COMPANY)
for authority to increase its rates for)
the generation and distribution of)
electricity and for other relief.)
_____)

Case No. U-18322

EXHIBITS OF
ROBERT F. NICHOLS II, C.P.A.
MICHIGAN PUBLIC SERVICE COMMISSION

Schedule A-1

MICHIGAN PUBLIC SERVICE COMMISSION

Case No.: U-18322

Consumers Energy Company

Exhibit: S-1

Computation of the Electric Revenue Deficiency
for the Test Year Ended September 30, 2018
(\$000)

Schedule A-1

Witness: RFNichols

Page 1 of 1

Line	Description	Source	Applicant Projection	Staff Adjustments	Staff Projection	Staff Jurisdictional
	(a)	(b)	(c)	(d)	(e)	(f)
1	Rate Base	Exhibit: A-7 (JRF-5)	\$ 10,332,668	\$ (82,977)	\$10,249,691	\$10,206,705
2	Adjusted Net Operating Income	Exhibit: A-8 (JRF-10)	527,845	55,502	583,348	584,247
3	Overall Rate of Return	Line 2 / Line 1	5.11%	0.58%	5.69%	5.72%
4	Required Rate of Return	Exhibit: A-9 (AJD-1)	6.16%	-0.34%	5.82%	5.82%
5	Income Required	Line 1 * Line 4	636,764	(39,945)	596,819	594,316
6	Income Deficiency/ (Sufficiency)	Line 5 - Line 2	108,918	(95,447)	13,471	10,069
7	Revenue Multiplier	Exhibit: A-8 (JRF-11)	1.6377	-	1.6377	1.6377
8	Revenue Deficiency/ (Sufficiency)	Line 6 * Line 7	\$ 178,373	(156,311)	22,062	16,489

Schedule B-1

MICHIGAN PUBLIC SERVICE COMMISSION

Case No.: U-18322

Consumers Energy Company

Exhibit: S-2

Projected Rate Base

Schedule B-1

for the Test Year Ended September 30, 2018

Witness: RFNichols

(\$000)

Page 1 of 1

Line	Description	Source	Applicant Projection	Staff Adjustments	Staff Projection	Staff Jurisdictional
	(a)	(b)	(c)	(d)	(e)	(f)
1	Total Utility Plant	Exhibit: A-7 (JRF-7)	\$ 14,840,026	\$ (86,209)	\$ 14,753,817	\$ 14,694,718
2	Depreciation Reserve	Exhibit: A-7 (JRF-8)	5,194,782	(3,232)	5,191,550	5,171,802
3	Net Utility Plant	Line 1 - Line 2	\$ 9,645,244	\$ (82,977)	\$ 9,562,267	\$ 9,522,916
4	Sales and Use Tax Adjustment	WP-JRF-68	(13,232)	-	(13,232)	(13,223)
5	Retainers & Customer Advances	Exhibit: A-2 (JRC-5)	(28,475)	-	(28,475)	(28,456)
6	Adjusted Net Utility Plant	Sum Lines 3 - 5	9,603,537	(82,977)	9,520,561	9,481,237
7	Working Capital	Exhibit: A-7 (JRF-9)	729,131	-	729,131	725,468
8	Total Projected Rate Base	Line 6 + Line 7	<u>\$ 10,332,668</u>	<u>\$ (82,977)</u>	<u>\$ 10,249,691</u>	<u>\$ 10,206,705</u>

Schedule B-4

MICHIGAN PUBLIC SERVICE COMMISSION

Case No.: U-18322

Exhibit: S-2

Consumers Energy Company

Schedule B-4

Electric 13-Month Average Working Capital Balance Sheet

Witness: RFNichols

for the Test Year Ended September 30, 2018

Page 1 of 1

(\$000)

Line	Description (a)	Applicant Projection (b)	Staff Adjustments (c)	Staff Projection (d)
<u>Assets</u>				
1	Cash	\$ 43,562	\$ -	\$ 43,562
2	Accounts Receivable	282,440	-	282,440
3	Sale of Receivables	-	-	-
4	CE Receivable Funding	-	-	-
5	Materials & Supplies	82,290	-	82,290
6	Fuel Stock	67,961	-	67,961
7	Clean Air Allowance	14	-	14
8	Accrued Revenues	215,900	-	215,900
9	Sale of Accrued Revenues	-	-	-
10	Prepayments	43,674	-	43,674
11	Real & Personal Property Taxes	163,963	-	163,963
12	Deferred Debits	743,888	-	743,888
13	Total Assets	<u>1,643,692</u>	<u>-</u>	<u>1,643,692</u>
<u>Liabilities</u>				
14	Accounts Payable	372,186	-	372,186
15	Dividends Payable	27,738	-	27,738
16	Accrued Interest	43,684	-	43,684
17	Accrued Taxes	158,957	-	158,957
18	Other Current Liabilities	20,937	-	20,937
19	Deferred Credits and Operating Reserves	291,061	-	291,061
20	Total Liabilities	<u>914,562</u>	<u>-</u>	<u>914,562</u>
21	Net Working Capital	<u>\$ 729,131</u>	<u>\$ -</u>	<u>\$ 729,131</u>

Schedule C-1

MICHIGAN PUBLIC SERVICE COMMISSION

Case No.: U-18322

Consumers Energy Company

Exhibit: S-3

Projected Net Operating Income

Schedule C-1

for the Test Year Ended September 30, 2018

Witness: RFNichols

(\$000)

Page 1 of 1

Line	Description	Source	Applicant Projection	Staff Adjustments	Staff Projection	Staff Jurisdictional
	(a)	(b)	(c)	(d)	(e)	(f)
<u>Operating Revenue</u>						
1	Sales Revenue	Exhibit: A-8 (JRF-12)	\$ 4,214,366	\$ 526	\$ 4,214,892	\$ 4,215,616
2	Wholesale Revenue	Exhibit: A-8 (JRF-12)	26,096	-	26,096	0
3	Other Electric Revenue	Exhibit: A-8 (JRF-12)	52,842	-	52,842	52,776
4	Total Operating Revenue	Sum Lines 1 - 3	\$ 4,293,304	\$ 526	\$ 4,293,830	\$ 4,268,392
<u>Operating Expense</u>						
5	Power Supply Costs	Exhibit: A-8 (JRF-13)	2,145,445	-	2,145,445	2,124,106
6	Other O&M Expense	Exhibit: A-8 (JRF-14)	627,602	(89,315)	538,288	536,411
7	Depreciation and Amortization	Exhibit: A-8 (JRF-15)	612,004	(4,266)	607,738	604,815
8	R&PP Tax	Exhibit: A-8 (JRF-16)	172,207	(991)	171,217	170,809
9	Other General Taxes	Exhibit: A-8 (JRF-16)	30,213	-	30,213	30,049
10	Other (or Local) Taxes ¹	Exhibit: A-8 (JRF-19)	1,203	163	1,366	1,352
11	State Income Tax ¹	Exhibit: A-8 (JRF-18)	38,933	5,997	44,930	45,003
12	Federal Income Tax ¹	Exhibit: A-8 (JRF-17)	142,902	33,435	176,337	176,621
13	Total Operating Expense	Sum Lines 5 - 12	3,770,510	(54,977)	3,715,534	3,689,165
14	Net Operating Income	Line 4 - Line 13	522,794	55,502	578,296	579,226
15	AFUDC	Exhibit: A-8 (JRF-20)	5,052	-	5,052	5,021
16	Subtotal	Line 14 + Line 15	527,845	55,502	583,348	584,247
<u>Operating Income Adjustments</u>						
17	Income Tax Effect of Interest ¹		Included in Lines 11 & 12			
18	Interest Synchronization Adjustment ¹		Included in Lines 11 & 12			
19	Total Net Operating Income Adju	Line 17 + Line 18	-	-	-	-
20	Adjusted Net Operating Income	Line 16 + Line 19	\$ 527,845	\$ 55,502	\$ 583,348	\$ 584,247

Footnotes

¹ Income Tax Effect of Interest and Interest Synchronization Adjustments are included in the calculation of CIT, MCIT, and FIT. The separate calculations can be found on Exhibit: A-8 (JRF-21) Exhibit: A-8 (JRF-22)

MICHIGAN PUBLIC SERVICE COMMISSION

Case No.: U-18322

Exhibit: S-3

Schedule C-1.1

Witness: RFNichols

Page 1 of 1

Consumers Energy Company

Projected Net Operating Income

for the Test Year Ended December 31, 2017

(\$000)

Line No.	(a) Description (Witness)	Revenue				Expenses									NOI		
		(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)
		Sales Revenue	Wholesale Revenue	Electric Revenue	Other Revenue Total	Power Supply Costs	Other O&M	Depreciation & Amort.	R&PP Tax	Other General Taxes	Other (or Local) Taxes	State Income Tax	FIT	Total	NOI	AFUDC	Adjusted NOI
Company Filed																	
1	Operating Income	4,214,366	26,096	52,842	4,293,304	2,145,445	627,602	612,004	172,207	30,213	1,203	38,933	142,902	3,770,510	522,794	5,052	527,845
Staff Adjustments																	
2				-													
3				-													
4	RIA and Senior Citizens Discount	526			526							1	31	173	205	321	321
5	Cap Ex Adjustments Impact (WP-RFN-1)							(4,266)	(991)			8	310	1,728	(3,210)	3,210	3,210
6	Electric Distribution (Laruwe)						(14,652)					23	864	4,818	(8,947)	8,947	8,947
7	Fossil & Hydro Generation (Evans)						(4,658)					7	275	1,531	(2,844)	2,844	2,844
8	Business Service											-	-	-	-	-	-
9	Information Technology											-	-	-	-	-	-
10	Smart Energy Program											-	-	-	-	-	-
11	Pension (Welke)						(1,108)					2	65	364	(677)	677	677
12	DB SERP (Welke)						(2,142)					3	126	704	(1,308)	1,308	1,308
13	Defined Company Contribution Plan											-	-	-	-	-	-
14	DC SERP (Welke)						(207)					0	12	68	(126)	126	126
15	401 (K) Savings Plan											-	-	-	-	-	-
16	Active Health Care/ Insurance/ LTD											-	-	-	-	-	-
17	Retiree Health Care and Life Insurance											-	-	-	-	-	-
18	Corporate											-	-	-	-	-	-
19	Uncollectibles (Welke)						(2,007)					3	118	660	(1,226)	1,226	1,226
20	Injuries & Damages											-	-	-	-	-	-
21	Demand Response Other O&M Expense											-	-	-	-	-	-
22	Paymentus Other O&M Expense											-	-	-	-	-	-
23	Customer Experience											-	-	-	-	-	-
24	Jobwork Expense											-	-	-	-	-	-
25	Incentive Compensation (Welke)						(13,580)					22	801	4,465	(8,292)	8,292	8,292
26	2% O&M Annual Cost Savings (Welke)						(50,961)					82	3,006	16,756	(31,118)	31,118	31,118
27	Proforma Interest (Nichols)											10	385	2,152	2,548	(2,548)	(2,548)
28	Interest Synchronization (Nichols)											0	3	16	-	(19)	(19)
29	Total Adjustments	526	-	-	526	-	(89,315)	(4,266)	(991)	-	163	5,997	33,435	(54,977)	55,502	-	55,502
30	Staff NOI - Test Year	<u>4,214,892</u>	<u>26,096</u>	<u>52,842</u>	<u>4,293,830</u>	<u>2,145,445</u>	<u>538,288</u>	<u>607,738</u>	<u>171,217</u>	<u>30,213</u>	<u>1,366</u>	<u>44,930</u>	<u>176,337</u>	<u>3,715,534</u>	<u>578,296</u>	<u>5,052</u>	<u>583,348</u>
31	Staff Jurisdictional NOI - Test Year	<u>4,215,616</u>	<u>-</u>	<u>52,776</u>	<u>4,268,392</u>	<u>2,124,106</u>	<u>536,411</u>	<u>604,815</u>	<u>170,809</u>	<u>30,049</u>	<u>1,352</u>	<u>45,003</u>	<u>176,621</u>	<u>3,689,165</u>	<u>579,226</u>	<u>5,021</u>	<u>584,247</u>

Schedule C-12

MICHIGAN PUBLIC SERVICE COMMISSION

Case No.: U-18322

Exhibit: S-3

Consumers Energy Company

Schedule C-12

Tax Effect of Pro-Forma Interest Adjustment
for the Test Year Ended September 30, 2018
(\$000)

Witness: RFNichols

Page 1 of 1

Line	Description	Total Amount	Source
	(a)	(b)	(c)
1	Rate Base	\$ 10,249,691	Exhibit: A-7 (JRF-6)
2	Weighted Cost of Debt ¹	<u>1.74%</u>	Exhibit: A-9 (AJD-1)
3	Allowable Interest Expense	178,191	Line 1 * Line 2
4	Applicant Projection	<u>184,735</u>	Exhibit: A-3 (JRC-32)
5	Increase/ (Decrease) in Allowable Interest Deduction	<u>(6,544)</u>	Line 3 - Line 4
6	Impact on Taxable Income	6,544	Line 5 * -1
7	CIT Rate	<u>0.16%</u>	Tax Department
8	Impact on City Income Tax	<u>10</u>	Line 6 * Line 7
9	Impact on State Taxable Income	\$ 6,533	Line 6 - Line 8
10	MCIT Rate	<u>5.898%</u>	Tax Department
11	Impact on State Income Tax	<u>385</u>	Line 9 * Line 10
12	Impact on Federal Taxable Income	6,148	Line 9 - Line 11
13	FIT Rate	<u>35%</u>	Tax Department
14	Impact on Federal Income Tax	<u>2,152</u>	Line 12 * Line 13
15	Impact on Net Operating Income	<u>\$ (2,548)</u>	(Line 8 + Line 11 + Line 14) * -1

Footnotes

¹ Excludes the Job Development Investment Tax Credit portion

Schedule C-13

MICHIGAN PUBLIC SERVICE COMMISSION

Case No.: U-18322

Consumers Energy Company

Exhibit: S-3

Tax Effect of Interest Synchronization Adjustment

Schedule C-13

for the Test Year Ended September 30, 2018

Witness: RFNichols

(\$000)

Page 1 of 1

Line	Description	Total Amount	Source
(a)	(b)	(c)	
1	Rate Base	\$ 10,249,691	Exhibit: A-7 (JRF-6)
2	Debt Related JDITC ¹ Portion of the Capital Structure	<u>0.27%</u>	Exhibit: A-9 (AJD-1)
3	Portion of Rate Base Funded by JDITC	27,445	Line 1 * Line 2
4	Cost of Debt - JDITC Portion	<u>4.68%</u>	Exhibit: A-9 (AJD-1)
5	JDITC Interest Expense	1,284	Line 3 * Line 4
6	Applicant Projection	<u>1,332</u>	Exhibit: A-3 (JRC-33)
7	Increase/ (Decrease) in Allowable JDITC Interest Expense	<u>(48)</u>	Line 5 - Line 6
8	Impact on Taxable Income	48	Line 7 * -1
9	CIT Rate	<u>0.16%</u>	Tax Department
10	Impact on Local Income Tax	<u>0</u>	Line 8 * Line 9
11	Impact on State Taxable Income	48	Line 8 - Line 10
12	MCIT Rate	<u>5.898%</u>	Tax Department
13	Impact on State Income Tax	<u>3</u>	Line 11 * Line 12
14	Impact on Federal Taxable Income	45	Line 11 - Line 13
15	FIT Rate	<u>35%</u>	Tax Department
16	Impact on Federal Income Tax	<u>16</u>	Line 14 * Line 15
17	Synchronization Adjustment to Net Operating Income	<u>\$ (19)</u>	(Line 10 + Line 13 + Line 16) * -1

Footnotes

¹ Job Development Investment Tax Credit

MPSC AUDIT REQUEST

CASE NO: U-18322
DATE OF REQUEST: 4/03/17
NO. JSG-1
REQUESTED BY: Jay S. Gerken
DATE OF RESPONSE: 04/11/17
RESPONDENT: Danielle M. Hill

Question:

2. Provide a summary of the contingency capital expenditures provided in response to JSG-1.1 on a departmental basis (i.e. Distribution, IT, Fossil/Hydro Generation, etc.) for the projected bridge period and projected test year in its entirety (i.e. using the same time parameters set requested JSG-1.1).

Answer:

2. Please see attached file: U-18322 MPSC Staff Audit Rqst 002 – Hill Attachment.xlsx.

U-18322
Staff Audit 002
Contingency Summary

	(a.)	9-Months Ended Sep 2016 (\$000) (c.)	12-Months* Ended Sep 2017 (\$000) (d.)	12-Months Ended Sep 2018 (\$000) (e.)
(1.)	Electric Distribution	\$0	\$973	\$826
(2.)	Energy Resources	\$0	\$7,137	\$11,366
(3.)	Customer Experience	\$0	\$0	\$0
(4.)	Electric Business Services	\$0	\$0	\$0
(5.)	Information Technology	\$0	\$1,208	\$1,970
(6.)	Smart Energy	\$0	\$0	\$0
(15.)	Total Expenditures	\$0	\$9,318	\$14,162

*Contingency dollars provided for the 12-Months ended Sep 2017 are related to capital spending for the period January 1, 2017 through September 30, 2017.

MPSC AUDIT REQUEST

CASE NO: U-18322
DATE OF REQUEST: 4/27/17
NO. JSG-4
REQUESTED BY: Jay S. Gerken
DATE OF RESPONSE: 5/2/2017
RESPONDENT: Heidi J. Myers

Question:

It is Staff's understanding that as a part of its obligations under the final judgement between the parties in Civil Action No.: 14-13580 Consumers Energy Company made a donation of land located at its JRWhiting Plant.

3. Does Consumers Energy agree that the cost of the land should be removed from the instant rate case? If yes, provide all impacts on the filed revenue deficiency if the cost of the land was removed.

Answer:

3. The land should be removed from this case. The revenue deficiency, as filed, would be reduced by \$77,184. (\$14,380 for the return on \$160,780 of plant in service and \$62,804 for property tax.)

MPSC AUDIT REQUEST

CASE NO: U-18322
DATE OF REQUEST: 5/23/2017
NO. JSG-10
REQUESTED BY: Jay S. Gerken
DATE OF RESPONSE: 5/31/2017
RESPONDENT: Heidi Myers

Question:

1. In the time frame since the instant rate case was filed did the company find any errors which would have an impact on plant in service, CWIP, depreciation expense, depreciation reserve or property tax expense projected in the instant rate case?

Answer:

1. Yes.

Consumers Energy Company
 Electric Rate Case U-18322
 MPSC Staff Audit Request 193
 Reconciliation of Property Model to Rate Base
 (\$000)

Line	Description (a)	Amount Per Rev Requirement Exhibits (b)	Amount Per Revised Property Model (c)	Difference (e)	Revenue Requirement Source (d)
1	Plant In Service	\$ 14,345,861			Exhibit A-7 (JRF-7)
2	Plant Held For Future Use	5,193			Exhibit A-8 (JRF-43)
3	Total Gross Plant	14,351,054	14,348,817	(2,237)	Line 1 + Line 2
4	Construction Work In Progress	488,973	476,653	(12,320)	Exhibit A-7 (JRF-7)
5	Total Projected Utility Plant	14,840,027	14,825,470	(14,557)	Exhibit A-7 (JRF-7)
6	Less: Depreciation Reserve	5,194,782	5,194,644	(138)	Exhibit A-7 (JRF-5)
7	Net Utility Plant	9,645,245	9,630,826	(14,419)	Exhibit A-7 (JRF-5)
8	Depreciation & Amortization Expense	612,419	612,137	(282)	Exhibit A-8 (JRF-15)
9	AFUDC	5,052	5,052	-	Exhibit A-8 (JRF-10)

Revenue Deficiency Impact of Differences	
Reduction in Rate Base	(14,419)
Times Pretax ROR	8.94%
Rate Base Impact	(1,290)
Depreciation Expense	(282)
Property Tax Expense	(76)
Total Revenue Deficiency Impact	(1,572)

Property Tax	
Change in Beginning Gross Plant	(269)
1/2 Change in Beginning CWIP	(6,113)
Total Difference	(6,382)
Times Property Tax Rate	1.19%
Change in Property Tax	(76)

Revised Property Model

Depreciation Group Total	12 Months Ended		Average	Line
	Sep-17	Sep-18		
Beginning CWIP Balance	658,017	474,509		
Direct Expenditures	592,840	534,647		
Direct Labor	198,838	179,320		
Direct Labor Overheads	38,609	34,819		
CIAC	(11,385)	(11,833)		
AFUDC	4,823	5,052		9
Total Book Expenditures	823,725	742,005		
Book Closings	(1,006,671)	(737,718)		
CWIP Adjustment	(560)	-		
Ending CWIP Balance	474,509	478,796	476,653	4
Beginning Gross Plant	13,220,558	14,045,417		
Book Closings	1,006,671	737,718		
Book Retirements	(181,812)	(130,918)		
Gross Plant Adjustment	0	0		
Ending Gross Plant Balance	14,045,417	14,652,217	14,348,817	3
Land Balance	110,742	110,742		
Depreciable Balance Avg	13,522,246	14,238,075		
Book Depreciation Rate	4.32%	4.30%		
Book Depreciation Expense	584,408	612,137		8
Beginning Depreciation Reserve	4,726,458	5,023,023		
Cost of Removal or Salvage	(106,031)	(137,978)		
Book Depreciation Expense	584,408	612,137		
Book Retirement	(181,812)	(130,918)		
Depreciation Reserve Adjustment	-	-		
Ending Depreciation Reserve	5,023,023	5,366,265	5,194,644	6

MPSC AUDIT REQUEST

CASE NO: U-18322
DATE OF REQUEST: 4/25/17
NO. JSG-3
REQUESTED BY: Jay S. Gerken
DATE OF RESPONSE: 5/3/17
RESPONDENT: Daniel L. Harry

Question:

1. Company witness Daniel Harry's direct testimony addresses a formal challenge pending under FERC Docket No. ER16-118-000. On page 17 of Mr. Harry's direct testimony, lines 10-12, he states "While the impact of this potential accounting change is not yet known, Consumers Energy estimates that the change, if it occurs, could increase the revenue requirement in this case by up to \$3 million." Provide all supporting documentation and calculations used to derive the \$3 million impact discussed by Mr. Harry.

Answer:

Please see the attached document for a calculation of the current estimated accounting change impact, which indicates a \$1.8 million increase in the revenue requirement based on balances as of September 30, 2016. Balances are subject to change pending settlement of the formal challenge and approval by the FERC.

U-18322 MPSC Staff Audit Request 113 attachment

(Dollars in Millions)

**Impact of Removing Electric Plant, Land, and Land Rights from
 Distribution Revenue Requirement**

Electric Plant , Land and Land Rights	\$	70.4	
Pre-Tax Rate of Return		<u>9.09%</u>	Source: U-17990 Exh A-9 (AJD-1)
Return on Investment	\$	6.4	
Depreciation Expense		0.3	
R&PP Tax	\$	<u>0.8</u>	Footnote 1
Reduction to Revenue Requirement due to Removal of Assets	\$	7.5	
Increase to Revenue Requirement due to Absence of METC Easement Payment	\$	<u>9.3</u>	Source: Easement Agreement
Net Increase to Distribution Revenue Requirement	\$	<u><u>1.8</u></u>	

(1) Plant Balance at September 30, 2016	\$	70.4	
Property Tax Rate		<u>0.011999204</u>	Source: U-17990 Exh A-58 (BJV-1)
		0.8	

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Jennifer M. Brooks

Subscribed and sworn to before me
this **10th** day of **August, 2017**.

Steven J. Cook,
Notary Public, State of Michigan,
County of Ingham
Acting in County of Eaton
My Commission Expires: 04/30/2018