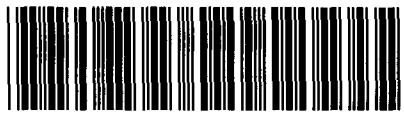

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SOAH DOCKET NO. 473-19-3864
PUC DOCKET NO. 49421

APPLICATION OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC FOR AUTHORITY TO CHANGE RATES	§ § §	BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS

REDACTED

DIRECT TESTIMONY

OF

CHARLES S. GRIFFEY

ON BEHALF OF TEXAS INDUSTRIAL ENERGY CONSUMERS

June 6, 2019

H18

SOAH DOCKET NO. 473-19-3864
PUC DOCKET NO. 49421

APPLICATION OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC FOR AUTHORITY TO CHANGE RATES	**§ § §**	**BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS**

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DIRECT TESTIMONY OF CHARLES S. GRIFFEY

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, OCCUPATION, AND BUSINESS ADDRESS.

A. My name is Charles S. Griffey, and I am a consultant providing services to the electric and natural gas industries. My address is 2918 Todville Rd., Seabrook, Texas 77586.

Q. ON WHOSE BEHALF ARE YOU PROVIDING TESTIMONY?

A. I am testifying on behalf of Texas Industrial Energy Consumers ("TIEC").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. I address Preliminary Order question #9:

> Are any protections, such as financial protections, appropriate to protect CenterPoint's financial integrity and ability to provide reliable service at just and reasonable rates?

I discuss how utility ratepayers may not receive the full benefit of the rates they pay due to utility holding company structures, and how ring-fencing measures can enhance a utility's credit profile. Next, I discuss how CenterPoint Energy Houston Electric, LLC ("CEHE") compares to the financial ring-fencing provisions the Commission requires for Oncor. Finally, I make recommendations regarding financial protections that would be appropriate to protect CEHE's financial integrity and ability to provide reliable service at just and reasonable rates.

Q. ARE OTHER TIEC WITNESSES DISCUSSING RETURN AND CAPITAL STRUCTURE ISSUES?

A. Yes. Mr. Michael P. Gorman provides recommendations on return and capital structure on behalf of TIEC.

Q. PLEASE OUTLINE YOUR FORMAL EDUCATION AND CERTIFICATIONS.

A. I have a Master of Business and Public Management from the Jones Graduate School of Business at Rice University and a Bachelor of Science in Chemical Engineering from Rice University. I am a Chartered Financial Analyst and a Professional Engineer registered in the State of Texas.

Q. PLEASE STATE YOUR PROFESSIONAL EXPERIENCE.

A. Prior to becoming a consultant in 2009, I was employed by Reliant Energy, Inc. ("Reliant") as Senior Vice President of Regulatory Affairs and Market Design. I was responsible for Reliant's nationwide efforts in the design of competitive markets, regulatory affairs including interface with state commissions and Regional Transmission Organizations, and government affairs. Reliant owned generation in a number of states and had retail operations in Texas and the Mid-Atlantic region.

I began working for Houston Lighting and Power ("HL&P"), the electric utility serving parts of Southeast Texas and the predecessor company to Reliant, in 1989 in Corporate Planning where I worked on resource planning, including determining what power plants to construct, what projects to cancel, evaluation of owning plants compared to power purchases, and determination of marginal cost. Beginning in 1995, I was also responsible for the rate department, and eventually I became Vice President of Regulatory Planning, with responsibility for resource planning, financial planning, rates, and rate design and cost allocation. Subsequently, I helped lead the integrated utility's efforts in restructuring the ERCOT market and transitioning the company for competition, integrating both

wholesale and retail market design and operations, restructuring of utility functions and affiliate issues, and public policy advocacy.

Before working for Reliant, I worked at Austin Energy, at the Public Utility Commission of Texas ("Commission"), and for Bechtel Group, Inc. as an engineer on the Coolwater Coal Gasification Project.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY REGULATORY COMMISSIONS OR COURTS?

A. Exhibit CSG-1 lists the testimony I have presented and a summary of my work experience.

Q. PLEASE DESCRIBE YOUR EXPERIENCE WITH MATTERS PERTAINING TO UTILITY RING-FENCING AND FINANCIAL PROTECTIONS.

A. I have provided testimony addressing utility ring-fencing and financial protections in the following sale/transfer/merger (STM) proceedings before the Commission:

- Docket No. 41223, *Application of Entergy Texas, Inc., ITC Holdings Corp., MidSouth Transco LLC, Transmission Company of Texas, LLC and ITC MidSouth LLC for Approval of Change of Ownership and Control of transmission Business, Transfer of Certification Rights, Certain Cost Recovery Approvals and Related Relief*;
- Docket No. 41850, *Application of Entergy Texas, Inc., ITC Holdings Corp., MidSouth Transco LLC, Transmission Company Texas, LLC, and ITC MidSouth LLC for Approval of Chane of Ownership and Control of Transmission Business, Transfer of Certification Rights and Related Relief*;
- Docket No. 45815, *Joint Report and Application of Oncor Electric Delivery Company, LLC, Ovation Acquisition I, LLC, Ovation Acquisition II, LLC and Shary Holdings, LLC for Regulatory Approvals Pursuant to PURA §§ 14.101, 37.154, 39.262(l)-(m), and 39.915;*
- Docket No. 46238, *Joint Report and Application of Oncor Electric Delivery Company LLC and NextEra Energy, Inc. for Regulatory Approvals Pursuant to PURA §§ 14.101, 39.262 and 39.915*;

- Docket No. 48929, *Joint Report and Application of Oncor Electric Delivery Company LLC, Sharyland Distribution & Transmission Services, L.L.C., Sharyland Utilities, L.P., and Sempra Energy For Regulatory Approvals Under Pura §§ 14.101, 37.154, 39.262, and 39.915.*

In addition, I provided expert consulting services in the following cases that were settled or dismissed without intervenor testimony:

- Docket No. 37990, *Joint Report and Application of Sharyland Utilities, L.P., Sharyland Distribution & transmission Services, LLC, Hunt Transmission Services, LLC, Cap Rock Energy Corporation and NewCorp Resources Electric Cooperative, Inc. for Regulatory Approvals Pursuant to PURA §§ 14.101, 37.154, 39.262 and 39.915*;

- Docket No. 47453, *Joint Report and Application of Texas Transmission Holdings Corporation and NextEra Energy, Inc. for Regulatory Approvals Pursuant to PURA §§ 14.101, 39.262 and 39.915*;

- Docket No. 47469, *Joint Report and Application of Sharyland Utilities, L.P., Sharyland Distribution & transmission Services, LLC and Oncor Electric Delivery Company, LLC for Transfer of Facilities, transfer of Rights Under and Amendment of Certifications of Convenience and Necessity, and for other Regulatory Approvals.*

I have also filed testimony regarding utility credit ratings in various rate cases and resource planning cases.

Q. IS YOUR TESTIMONY BASED ON YOUR PERSONAL KNOWLEDGE AND EXPERIENCE AND THE INFORMATION YOU REVIEWED IN THIS CASE?

A. Yes.

Q. DID YOU RELY ON SOURCES OF INFORMATION THAT YOU REGARD AS RELIABLE AND ARE ORDINARILY AND CUSTOMARILY USED AND RELIED ON BY THOSE INVOLVED IN THE ELECTRIC INDUSTRY?

A. Yes. I have provided the CEHE discovery responses and other workpapers that I relied upon for my testimony as Exhibit CSG-2.

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. CEHE is requesting a higher amount of equity in its capital structure and a higher return on equity based on alleged risks relating to elevated capital expenditures, the impact of tax reform, hurricane risk, regulatory risk, and the desire to maintain an A- credit rating. However, there are other factors that impact CEHE's financial integrity and credit that are within its control, and are not being discussed. In particular, CEHE ignores the risks placed on the utility from being a part of the CenterPoint Energy ("CNP") holding company. CNP is more highly leveraged than CEHE and owns both other regulated utilities and non-utility businesses. As seen in other recent cases at the Commission, financial ring-fencing at CEHE could protect and improve the credit profile at the utility by insulating it from the business and financial risk of the rest of the CNP businesses. Such ring-fencing will provide ratepayers more of the benefits of the rates they pay for electric service and ensure that the utility can provide reliable service at just and reasonable rates.

In addition, CEHE does not address the tradeoff to customers of increasing the return on equity at the utility to avoid a potential increase in cost of debt. Debt yields are less than 5% for bonds rated Baa by Moodys,[1] while prevailing utility returns on equity are between 9 and 10% in Texas. As a result, it may very well be in customers' interest for CEHE to maintain higher debt and the risk of a slight increase in interest rates to avoid the costs of additional equity. CEHE also fails to address the current risk-adjusted return

[1] *See* St. Louis Fed Economic Research Division, "Moody's Seasoned Baa Corporate Bond Yield," available at: https://alfred.stlouisfed.org/series?seid=BAA&utm_source=series_page&utm_medium=related_content&utm_term=related_resources&utm_campaign=alfred#0 (last accessed June 4, 2019).

available in the utility business, which is quite attractive to investors compared to other investments.

In my opinion, these factors counsel for a more moderate capital structure and return on equity, combined with protections to insulate the utility from risks associated with the competitive activities of its parent and affiliates.

II. UTILITY RISKS AND CREDIT FACTORS

Q. WHAT ARE CEHE'S CURRENT CREDIT RATINGS?

A. CEHE currently has a split rating among the ratings agencies, meaning the agencies have ascribed slightly different levels of creditworthiness to the utility. S&P has CEHE rated BBB+, Fitch at A- and Moody's at A3. All of these ratings are "investment-grade."

Q. ARE HIGH CREDIT RATINGS GOOD FOR CUSTOMERS?

A. A higher credit rating generally provides a lower cost of debt. However, the Commission must consider the measures that are necessary to *achieve* or maintain a higher credit rating, and the resulting costs to customers, to establish an appropriate return on equity and capital structure.

Q. PLEASE EXPLAIN THIS TRADE-OFF.

A. A utility's credit rating is a function of its financial strength, regulatory environment, and economic outlook. Access to lower-cost debt is a positive, but it may cause net harm to customers if it means higher rates and weak regulatory oversight. In particular, in an environment where utility returns on equity are in the 9-10% range and costs of debt are typically under 5%, adding equity to avoid a small potential increase in debt costs may

not make sense for customers. This is particularly true given the "gross-up" for federal income taxes on the equity component of a utility's capital structure. Because the equity component of a utility's capital structure counts as income, customers are required to pay a multiplier on the equity component in rates so that the utility can earn its awarded return *after taxes*. At the current corporate federal income tax rates of 21%, this multiplier is 1.26,[2] meaning for each dollar of equity a customer must pay $1.26 in rates. This exacerbates the rate impacts of increasing a utility's return on equity and/or equity ratio.

Further, if a higher credit rating could be achieved or maintained *without* increasing costs to customers—for example, through financial or governance protections at the utility—then absent some other compelling reason, increasing the equity component of a utility's rates would be unreasonable.

Q. CEHE'S APPLICATION STATES THAT IT SEEKS TO MAINTAIN AN "A-" CREDIT RATING. HAS CEHE DEMONSTRATED THAT INCREASING EQUITY TO ACHIEVE OR MAINTAIN AN A- CREDIT RATING IS BETTER FOR CUSTOMERS THAN HAVING A LOWER EQUITY COMPONENT AND A BBB+ RATING?

A. No. CEHE has not attempted to quantify the costs and benefits to ratepayers of achieving an A- rating compared to a slightly lower rating such as BBB+.

[2] For a 21% tax rate, the tax gross-up is calculated as 1/(1-0.21) = 1.2658.

Q. DOES A HIGHER CREDIT RATING AND HIGHER ROE IN THE CAPITAL STRUCTURE FOR CEHE BENEFIT ITS UPSTREAM PARENT, CNP?

A. Yes. CEHE's parent, CNP, does not currently seek an A- rating itself. Instead, it has told investors it is aiming for a solid investment-grade rating, which may be below A-. CNP has told investors: [redacted][3] CNP depends on dividends from CEHE to maintain its cash flows and access to cheaper credit. CNP's increased dependence on those dividends is, in turn, credit-negative for CEHE.[4]

Q. HAVE CEHE'S RATINGS CHANGED RECENTLY?

A. Yes. CEHE was downgraded on February 1, 2019 by S&P from A- to BBB+ when CEHE's parent, CenterPoint Energy, Inc. ("CNP"), closed its merger with Vectren Corporation ("Vectren").[5] According to S&P, this ratings action was because the "acquisition debt will increase leverage, leading to weakened financial measures over the next several years"[6] for CNP.

Q. PLEASE DESCRIBE VECTREN AND CNP'S ACQUISITION.

A. Vectren was the ultimate parent of several utilities providing natural gas and electric services in Ohio and Indiana. Vectren also maintains subsidiaries that are in competitive, non-utility businesses such as infrastructure/construction, and energy services. Unregulated businesses made up about 25% of Vectren's earnings.[7] These unregulated

[3] "CenterPoint Energy, Inc. Strategy and Outlook" at 2, provided in CEHE Response to TCUC 1-02 (HSPM).
[4] Moody's Credit Opinion (June 19, 2018).
[5] S&P Global, "CenterPoint, Vectren Downgraded by S&P on Merger Close," (Feb. 4, 2019), available at: https://www.spglobal.com/marketintelligence/en/news-insights/trending/DnoLIHdz4Oy1ra67x0xzuw2.
[6] *Id.*
[7] Wells Fargo Securities Equity Research Report (Apr. 23, 2018), provided in CEHE Response to TIEC 2-2.

businesses join CNP's existing unregulated businesses in energy services and natural gas midstream (Enable Midstream Partners, LP), of which CNP owns over 50%. In early 2019, CNP acquired 100% of Vectren's outstanding equity for $72 per share, or approximately $6 billion in total.[8] CNP also assumed all outstanding Vectren debt, which it estimated at $2.5 billion, and took on approximately $3.5 billion in additional debt to finance the transaction.[9]

Q. WHAT DOES CEHE'S CREDIT DOWNGRADE DEMONSTRATE?

A. CEHE's downgrade was based on activities conducted at the parent level. This demonstrates that a utility's credit rating can be affected by financial and business risks of the upstream holding company, not just the risks associated with the utility business itself. Utility credit ratings are often linked to the credit rating of the parent corporation and its subsidiaries unless the utility is protected by a strong ring-fence—*i.e.*, restrictions that insulate the utility financially or provide independent governance. For instance, in the case of CNP's acquisition of Vectren, S&P notes that "[redacted]."[10] CNP's financial and business risk attributes drive its credit rating, which can have a negative impact on CEHE's credit rating.

[8] *See* Indiana Utility Regulatory Commission (IURC) Cause No. 45109, Direct Testimony of Scott E. Doyle on behalf of CenterPoint Energy, Inc. at 23 (Jun. 15, 2018), available at: https://iurc.portal.in.gov/legal-case-details/?id=d490b8fd-ab70-e811-8128-1458d04eaba0.

[9] Deutsche Bank Market Research (Apr. 23, 2018), provided in CEHE Response to TIEC 2-2.

[10] *Id.*

Q. DOES A LOWER CREDIT RATING AT THE PARENT OFTEN AFFECT A UTILITY SUBSIDIARY?

A. Yes, unless financial and governance restrictions such as a ring-fence are put in place to protect the utility. Ratings agencies will often "notch" a utility's credit rating downward if the parent has higher financial and/or business risk. Even if a utility would have a higher credit rating on a stand-alone basis, it may be notched downward if its parent has a lower credit rating and is depending on dividends from the utility. In such cases, a utility's ratepayers are paying for the equivalent of a higher rated entity, but higher financial and/or business risk at the parent prevents ratepayers from getting the full benefit of what they are paying for in rates (e.g., increased equity that should give rise to lower debt costs). For instance, Fitch has historically rated CEHE no more than one notch above CNP.[11]

However, if the utility is insulated from the financial and business risks of its parent and affiliates through a ring-fence, then additional debt or financial risk upstream will have less of an impact and may not result in downward notching.

Q. WHAT DO YOU RECOMMEND?

A. Given CEHE's exposure to the activities of its upstream parents, and the potential impacts on CEHE's credit profile, CEHE should adopt financial protections to insulate itself rather than seeking to increase the equity component of its return. My specific recommendations for financial insulation and the additional benefits it provides for customers are discussed below.

[11] CEHE Response to TCUC 1-4 at 14, 31.

III. RING-FENCING AT CEHE

Q. WHY IS FINANCIAL SEPARATION FROM THE PARENT IMPORTANT FOR A UTILITY AND ITS CUSTOMERS?

A. As discussed above, if a utility is not ring-fenced, the financial and business risk of a utility's parent and affiliates can affect the credit rating of the utility even in the best of times. In financially challenging times, ring-fencing is essential to prevent a utility from being incorporated into a bankruptcy proceeding with its parent or affiliates. Giving the upstream parent full access to a utility's revenues during periods of financial distress can allow the utility to be "looted" to pay debtors and shareholders, which could prevent the utility from making investments and paying expenses necessary to provide reliable utility service. This could, in turn, compel utility regulators to take extreme and costly measures to maintain utility service, potentially at the expense of the utility's ratepayers.

For these reasons, keeping the utility's operations, debt, and credit agreements separate from its parent and affiliates is important to establish that creditors cannot access the utility's assets and revenues.

Q. CAN YOU PROVIDE SPECIFIC EXAMPLES OF THE INTERACTION BETWEEN A UTILITY'S FINANCIAL INTEGRITY AND ITS PARENT'S ACTIVITIES?

A. Yes. The impact of a parent using "back-leverage" for a utility subsidiary was a significant issue in Docket No. 41223, ITC's proposed purchase of the Entergy Texas, Inc. (ETI) transmission system. While there were many issues in that docket, an important one was ITC's business practice of funding "equity" at the utility by taking out

additional debt at the parent, which is known as "back-leveraging." The result of this financing scheme would have been higher rates at the utility, but without the commensurate credit rating (and debt savings) that the higher rates should have provided for customers.[12]

The importance of financial separation between a utility and its parent was also litigated in Docket No. 46238, NextEra's attempted acquisition of Oncor. In that case, NextEra was attempting to remove some of the ring-fencing around Oncor. This would have given NextEra additional access to Oncor's revenues, improving NextEra's credit rating and allowing it to engage in additional competitive activities and take on greater leverage. This, in turn, would have harmed Oncor's credit rating.[13] The Commission opted to maintain Oncor's ring-fence and rejected the proposed merger. In Docket No. 48929, by comparison, Sempra Energy accepted the existing Oncor ring-fence and its proposed merger was approved.

Q. WHAT ARE SOME WAYS TO INSULATE A UTILITY FROM ITS PARENTS AND AFFILIATES TO MAINTAIN FINANCIAL INTEGRITY?

A. For one, there should be no "cross-default" provisions or rating agency triggers tied to the debt of affiliates or the parent. Cross-default provisions can cause a default at the utility if the debt of an affiliate or parent defaults, while rating agency triggers in utility debt on the credit ratings of the parent or affiliate can also cause a default at the utility. A legal non-consolidation opinion can also be obtained, which states that the utility's assets and revenues will not be consolidated with its parents and affiliates if they fall into

[12] Docket No. 41850, Direct Testimony of Charles Griffey at 16.
[13] Docket No. 46238, Direct Testimony of Charles Griffey at 11-17 and 66-72.

bankruptcy. This puts creditors of the affiliates and parent on notice that the utility is being operated independently.

Other important protections that the Commission has adopted in other cases include a restriction on pledging utility assets or ownership for the benefit of any entity besides the utility itself. In other words, the parent would not be able to take out additional debt or appease creditors by pledging utility assets. A dividend stopper can also ensure that the utility's cash flow is used first and foremost to provide reliability utility service, preventing the parent or its creditors from starving the utility of cash by ordering dividend payments. These provisions support the credit rating of the utility and ensure that it can provide reliable service without increasing the equity used to set regulated rates.

Q. CAN YOU PROVIDE AN EXAMPLE OF HOW THESE TYPES OF FINANCIAL REQUIREMENTS PROTECT THE UTILITY'S FINANCIAL INTEGRITY?

A. Yes. When Energy Future Holdings (EFH) acquired the former TXU Energy Corp. in 2007, it created a holding company above Oncor to hold its 80% ownership in the utility. EFH then took on a considerable amount of debt at this holding company by pledging its equity stake in Oncor. This debt, which had to be funded solely by Oncor dividends, would have potentially harmed the financial integrity of the utility *but for* the other financial and governance provisions in place.[14]

[14] Oncor has a 20% minority owner with certain rights and a board that was majority independent.

As another example, in Docket No. 46238 NextEra sought to use Oncor's strong credit profile to buttress NextEra's credit profile. NextEra was approaching 40% of its net income from non-utility sources and needed to incorporate Oncor's regulated revenue stream into its financial profile to maintain its own credit rating. However, NextEra had to reduce Oncor's financial separation before the ratings agencies would link NextEra's credit profile with Oncor's, which would have exposed Oncor to the risks associated with NextEra's unregulated businesses. Ultimately, the Commission was unwilling to allow such credit linkage and denied the merger.[15]

Q. DOES CEHE HAVE A RING FENCE?

A. No, CEHE does not have a ring-fence similar to what has been adopted for other utilities. In the case of Oncor, the Commission has maintained a ring-fence through both governance and financial conditions. CEHE does not have governance separation from CNP, although it does voluntarily maintain some degree of separateness in financial attributes.

Q. CAN YOU EXPLAIN CEHE'S CORPORATE RELATIONSHIP TO CNP AND ITS AFFILIATES?

A. Yes. Please refer to Figure 1.

[15] Docket No. 46238, Direct Testimony of Charles Griffey at 11-17 and 66-72.

[redacted]

Fitch has described this corporate structure as "[redacted]."[17] CEHE is an LLC wholly owned by its parent, CNP. Affiliates of CNP include Centerpoint Energy Resources Corp, which owns the gas LDCs and CenterPoint Energy Services; Vectren Corp, which owns the Vectren electric and gas utilities as well as unregulated businesses; and Midstream Holdco, which owns CenterPoint's units in the Enable Midstream business.

[redacted]

[16] "CenterPoint Energy, Inc. Strategy and Outlook" at 20, provided in CEHE Response to TCUC 1-02 (HSPM).
[17] Fitch Ratings (Apr. 24, 2018) at 4 ("[redacted] (HSPM).

[redacted][18] But in any case, CEHE would remain in its position in the corporate hierarchy. Total debt was approximately $[redacted] at the end of 2018, with CEHE debt comprising $[redacted], or approximately [redacted]% of the total.[19] The income of the consolidated business is approximately [redacted]% from regulated businesses.[20]

Q. WHAT IS THE GOVERNANCE STRUCTURE OF CEHE?

A. It is an LLC with a sole member controlling the entity.

Q. IS CEHE SEPARATED FROM CNP IN ANY WAY IN TERMS OF GOVERNANCE?

A. No.

Q. IS CEHE FINANCIALLY SEPARATE FROM ITS AFFILIATES AND PARENT?

A. Not completely, and much of the financial separation that does exist is voluntary and could change in the future. As I will show below, CEHE's financial instruments are generally separate, with several important caveats. CEHE is, however, affected by the amount of leverage at the holding company, and CNP's need for dividends from CEHE could affect CEHE's credit rating.[21]

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[18] "CenterPoint Energy, Inc. Strategy and Outlook" at 21, provided in CEHE Response to TCUC 1-02 (HSPM).
[19] *Id.* at 24 (HSPM).
[20] Fitch Ratings (Apr. 24, 2018) (HSPM).
[21] Moody's Credit Opinion (Jun. 19, 2018) ([redacted]) (HSPM)

Q. PLEASE COMPARE THE FINANCIAL SEPARATENESS OF CEHE AND ONCOR FROM THEIR RESPECTIVE PARENT COMPANIES.

A. The table below compares CEHE to Oncor using the financial ring-fencing criteria that the Commission established for Oncor. It *does not* compare the corporate governance of the utilities.

Figure 2 – Financial Ring-Fencing Comparison

ONCOR RING-FENCE	CEHE
Neither Oncor nor Oncor Holdings will include in any of their debt or credit agreements cross-default provisions between the securities of Oncor and of Oncor Holdings securities and the securities of Sempra Energy or any of its affiliates or subsidiaries (excluding Oncor), or any entity with a direct or indirect ownership interest in Oncor or Oncor Holdings. (FoF 55 from Final Order in Docket 47675)	**There are currently no cross default provisions between CNP and its affiliates and CEHE, except that under CEHE's credit agreement a change in control of CNP would cause a default.[22] If CNP no longer owns 100% of CEHE, that would also be a change in control and would cause a default under CEHE's credit agreement.[23] There are no restrictions on additional cross-default provisions in the future.**
Oncor and Oncor Holdings will not include in their debt or credit agreements any financial covenants or rating-agency triggers related to Sempra Energy or any other Sempra Energy affiliate, or any entity with a direct or indirect ownership interest in Oncor or Oncor Holdings. (FoF 55 from Final Order in Docket 47675)	CEHE is not currently subject to any rating agency triggers or financial covenants related to any entity other than CEHE.[24] There are no restrictions on CNP or its affiliates including such triggers or covenants in the future.
Oncor's assets or stock shall not be pledged by Oncor Holdings, Sempra Energy or any Sempra Energy affiliate, or any entity with a direct or indirect ownership interest in Oncor or Oncor Holdings, for any entity other than Oncor. (FoF 60 from Final Order in Docket 47675)	CEHE has not guaranteed any debt nor pledged any assets for entities other than CEHE.[25] There are no restrictions on CNP doing so in the future.

[22] CEHE Response to TIEC 2-6.
[23] CEHE Response to TIEC 2-10, Credit Agreement at Section 8.1(k).
[24] CEHE Response to TIEC 2-7.
[25] CEHE Response to TIEC 2-8.

Neither Oncor nor Oncor Holdings will share credit facilities with Sempra Energy or Sempra Energy's affiliates (other than Oncor subsidiaries), or any entity with a direct or indirect ownership interest in Oncor or Oncor Holdings. (FoF 60 from Final Order in Docket 47675)	CEHE does not share credit facilities with CNP or any affiliate.[26] There are no restrictions on such sharing in the future.
Oncor will, except as otherwise approved by the Commission, be registered with major nationally and internationally recognized bond rating agencies, including Standard & Poor's, Moody's Investor Service, and Fitch Ratings. Oncor's ratings shall reflect the ring-fence provision contemplated herein in order to provide Oncor with a stand-alone (non-linked) credit rating. (FoF 62 from Final Order in Docket 47675)	CEHE is registered with all three of these ratings agencies but is not required to maintain those registrations in the future.
Except as may be otherwise ordered by the Commission, Sempra Energy shall take the actions necessary to ensure the existence of an Oncor stand-alone credit rating. (FoF 63 from Final Order in Docket 47675)	CEHE currently has a stand-alone credit rating but is not required to maintain this in the future.
Sempra Energy will obtain a non-consolidation legal opinion that provides that, in the event of a bankruptcy of Sempra Energy or any affiliate of Sempra Energy, a bankruptcy court will not consolidate the assets and liabilities of Oncor with Sempra Energy or any affiliate of Sempra Energy. (FoF 65 from Final Order in Docket 47675)	**CEHE does not have a non-consolidation legal opinion with respect to CNP or other affiliates, except that it does have such opinions with regard to the issuers of its securitization bonds.**[27]
If the credit rating by any one of the three major ratings agencies (Standard & Poor's, Moody's Investor Service, or Fitch Ratings) falls below BBB (Baa2) for Oncor senior secured debt, then Oncor will suspend payment of dividends or other distributions, except for contractual tax payments, until otherwise allowed by the Commission.	**CEHE is not subject to any restrictions on dividend issuance except that under CEHE's credit agreement it cannot issue dividends if its debt/capitalization exceeds 65%.**[28]

[26] CEHE Response to TIEC 2-9.
[27] CEHE Response to TIEC 2-11.
[28] CEHE Response to TIEC 2-10.

Q. WHAT ARE THE MAJOR DIFFERENCES BETWEEN ONCOR'S AND CEHE'S FINANCIAL INSULATION?

A. I highlighted the differences that I view as most significant in bold in the table above. Specifically:

(1) there is no dividend stopper based on the utility's credit rating (or any other factor);

(2) CEHE does not have a non-consolidation opinion regarding its parent or non-subsidiary affiliates; and

(3) CEHE's credit agreement defines an "Event of Default" to include (i) a change in control of CNP (as defined in the agreement) or (ii) CNP ceasing to own and control 100% of the outstanding common Capital Stock of CEHE.[29]

In addition, there are several financial protections that CEHE is voluntarily observing today but is not required to observe in the future. It would be beneficial if CEHE committed to maintaining these protections in the future.

Q. WHY IS THE DIVIDEND STOPPER IMPORTANT?

A. As Moody's has noted, if CNP relies more on dividends from CEHE this is credit-negative for CEHE and could result in a downgrade. The Commission does not know what CNP's future plans are for leverage, the size or type of its unregulated business, or other risks that can affect CEHE. A dividend stopper is important to prevent the utility from losing the cash flow necessary to support reliability in the event that there are credit issues at the parent.

[29] Although these Events of Default would not immediately cancel and accelerate the credit extended.

Q. IS IT AN ISSUE IF CNP HAS PROVISIONS IN ITS CREDIT FACILITIES OR DEBT INSTRUMENTS THAT PROHIBIT A DIVIDEND STOPPER AT CEHE?

A. Yes. The purpose of such a provision would be to allow CNP to achieve more advantageous credit arrangements based on its unrestricted access to CEHE's cash flow. Ratepayers would not be protected from the types of events that a dividend stopper is designed to prevent. If CNP currently has such provisions in its credit agreements, the Commission should order that a dividend stopper be implemented on a future date certain with sufficient time to allow CNP to renegotiate any such credit agreements.

Q. WHY IS THE NON-CONSOLIDATION OPINION IMPORTANT?

A. A non-consolidation opinion provides some assurance as to the validity of CEHE's financial separation and puts the parent's creditors on notice that they cannot access the assets of the utility.

Q. WHY IS THE EXISTENCE OF A CROSS-DEFAULT PROVISION BASED ON A CHANGE OF CONTROL IMPORTANT?

A. The cross-default provision is in CEHE's credit facility. It weakens CEHE's financial separation from CNP.

Q. IF CNP HAD THE SAME RING-FENCING PROVISIONS AS ONCOR, WOULD IT HAVE A BETTER STAND-ALONE CREDIT RATING?

A. I believe so. Oncor's proven ring-fence demonstrates that a stand-alone utility with those ring-fencing provisions is not as directly linked to its parent corporation's credit rating, although Oncor's rating was still impacted. It is likely that if CEHE had such ring-fencing it would be considered credit positive for CEHE. Certainly, it would provide

greater insulation and a higher credit for CEHE in the future if CNP or its subsidiaries became financially distressed.

Q. COULD CNP AND CEHE IMPLEMENT ONCOR'S RING-FENCING PROVISIONS ON THEIR OWN?

A. Yes. Nothing prevents CNP/CEHE from adopting these ring-fencing provisions as a form of self-help for CEHE's credit rating. CNP would be unlikely to do this on its own, since the parent company benefits from having fewer restrictions on its ability to declare dividends, borrow based on CEHE's revenues, or otherwise take advantage of credit linkage between CNP and CEHE.

Q. IN RESPONSE TO PRELIMINARY ORDER QUESTION #9, WHAT PROTECTIONS ARE APPROPRIATE TO ENSURE CEHE'S FINANCIAL INTEGRITY AND ABILITY TO PROVIDE SERVICE?

A. The elements of the Oncor financial ring-fence that I laid out in the table above are appropriate to protect CEHE's financial integrity and ability to provide adequate service. As shown in Figure 2, CEHE already has a number of these features in place. That situation could change in the future, however, so if the Commission is going to require ring-fencing it should formalize the provisions already in place. In addition, the dividend stopper, non-consolidation opinion, and elimination of cross-default provisions are important for the utility's financial integrity.

Q. WOULD REQUIRING THESE PROTECTIONS HARM CEHE'S ABILITY TO ACCESS CAPITAL?

A. No. It should be credit-positive for access to debt. Access to equity also should not be impaired, because the risk-adjusted rate of return for the utility is extremely favorable. I provide context for that proposition in the next section.

IV. CONTEXT ON UTILITY RISK-ADJUSTED RETURNS

Q. ASIDE FROM THE FINANCIAL INSULATION ISSUES DISCUSSED ABOVE, ARE THERE OTHER REASONS WHY YOU BELIEVE CEHE'S EXISTING AND REQUESTED EQUITY COMPONENT ARE LIKELY TOO HIGH?

A. Yes. Utility returns in general, and CEHE's in particular, do not appropriately reflect overall market conditions of the level of risk attributable to a regulated utility.

Q. CEHE CITES LOAD GROWTH AND THE RESULTING ELEVATED CAPITAL EXPENDITURES AS A BUSINESS RISK THAT JUSTIFIES A CAPITAL STRUCTURE WITH A 50% EQUITY COMPONENT. ARE THESE CAPITAL EXPENDITURES BUSINESS RISKS OR BUSINESS OPPORTUNITIES?

A. Given current prevailing utility returns on equity, including those awarded in Texas, capital expenditures are more of a business opportunity than a business risk. CNP is seeking to grow earnings at 5%-7% annually,[30] which largely requires growth in rate base. CNP's executives have made clear in earnings calls that deploying additional regulated capital is part of the earnings growth story at CNP.[31] For instance, on its May

[30] CenterPoint Energy's Q1 2019 Earnings Call Presentation (May 9, 2019) at 11, available at: http://investors.centerpointenergy.com/static-files/4fb380fd-da85-4add-ad19-173be0a8c0d4.

[31] CenterPoint Energy's Q1 2019 Earnings Call Transcript at 15-20, 23-24 (May 9, 2019), available at: http://investors.centerpointenergy.com/static-files/63e5dc3c-8598-41d5-bce7-f56cf882588f.

9, 2019 earnings call, CNP executives sought to assure analysts that CNP could find equivalent levels of investments at its Vectren subsidiary after the Indiana Commission recently rejected nearly $1 billion of investment in a CCGT at that utility.[32] If additional capital expenditures were a burden and not an opportunity, management would be seeking to *limit* capital expenditures, not grow them.

More generally, there are high-level indicators that investors view regulated returns in Texas, combined with its growth potential, as a strong investment opportunity. This is demonstrated by the high level of interest in utility mergers in Texas, the multiples of book value that have been offered to buy Texas utilities, and the drive among utilities to secure end-points to build additional rate-regulated transmission. These are all indicators that risk-adjusted returns in the utility business in Texas are strong, and that deployment of additional capital is a business opportunity and not a business risk that needs to be mitigated.

Q. CAN YOU PROVIDE HISTORICAL CONTEXT FOR WHY YOU BELIEVE THE CURRENT RISK-ADJUSTED RETURNS FOR UTILITIES ARE FAVORABLE?

A. Yes. Figure 3 shows a comparison of awarded ROEs to the underlying 30-year treasury yield, while Figure 4 shows the difference between the two. This difference is the premium awarded to utility ROES above the risk free rate.

[32] CenterPoint Energy's Q1 2019 Earnings Call Presentation at 7 (May 9, 2019), available at: http://investors.centerpointenergy.com/static-files/4fb380fd-da85-4add-ad19-173be0a8c0d4.

Figure 3 – Utility ROEs and 30 Year Treasury Yield[33]

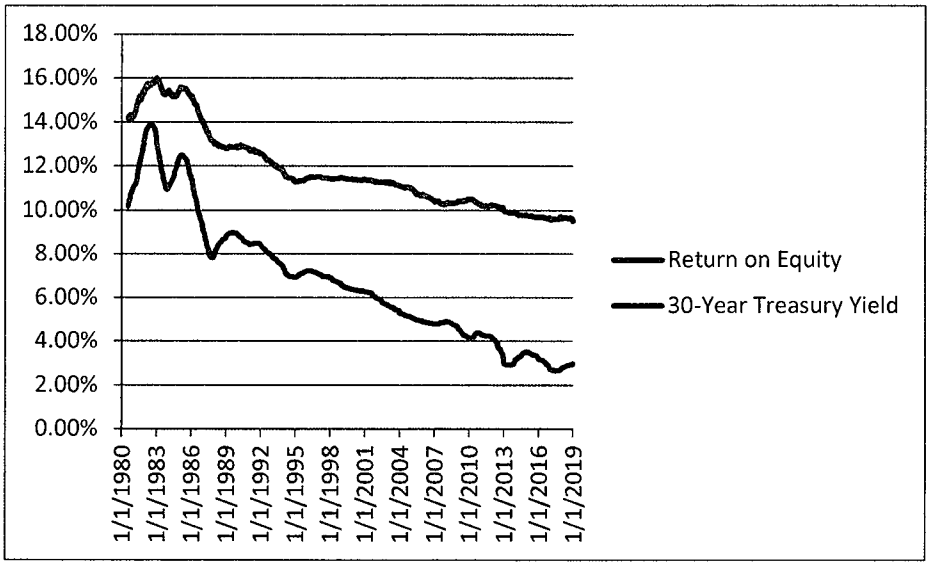
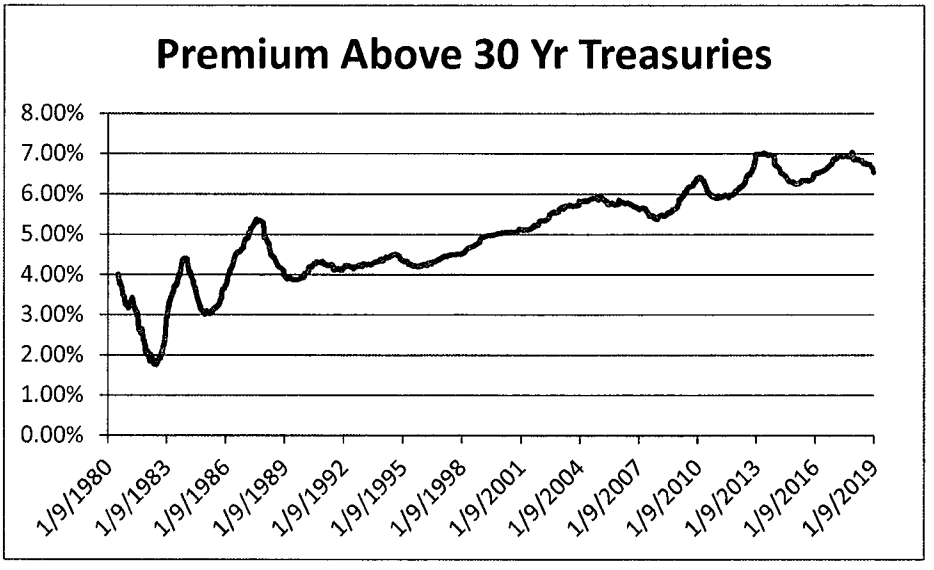


Figure 4 – Premium Above 30 Year Treasury Yield[34]



Q. WHAT DO THESE CHARTS SHOW?

A. They show that the premiums being awarded to utilities are near an all-time high of 650 – 700 basis points above treasuries. Utility commissions have been slow to follow the drop

[33] Data from Mr. Hevert's RBH-5
[34] *Id.*

in treasury yields. The reasons for that are discussed in more detail in a whitepaper I authored, which is attached as Exhibit CSG-3.

The average over the nearly forty-year period, which encompasses numerous business cycles, is 467 basis points. Therefore, CEHE's request of a 10.4% ROE, which is about 730 basis points above the thirty year treasury yield, is above the all-time high shown in the chart above. Given the lack of risk in the regulatory construct in Texas for T&D utilities, such a high premium to Treasuries is not reasonable.

Q. CAN THESE HIGH AWARDED PREMIUMS BE JUSTIFIED BY HIGHER RISK?

A. Not in the case of T&D utilities in ERCOT in general and not in the case of CEHE in particular. In the eighties and nineties, utilities were engaged in large generation construction programs that were and are much riskier than the transmission and distribution construction that utilities in ERCOT undertake today. Furthermore, regulatory lag has dropped significantly due to the introduction of the alphabet soup of recovery methods such as the TCRF and the DCRF. For instance, Moody's counts as a credit strength the [redacted]," and the "[redacted]"[35] Fitch notes that the T&D business in Texas is a "[redacted]," that CEHE takes "[redacted]

[35] Moody's Credit Opinion (Jun. 19, 2018), included in Schedule II-C-2.10 of the rate filing package.

[redacted]"[36] The historical period also saw corporate tax rates drop in 1986 from 50% to 35%, so the impact of the TCJA is not a new phenomenon. In short, risk is down but the premium awarded utilities above the risk-free rate is up. The rich risk-adjusted return is why there is great interest in utility investment nationally and in Texas in particular.

Q. WHAT ABOUT THE OTHER RISKS THAT CEHE CLAIMS REQUIRE A HIGHER CAPITAL STRUCTURE?

A. CEHE has always faced hurricane risk, so that is not new, and securitization largely mitigates storm risk, as even CEHE admits. As I discussed above, regulatory risk is actually lower than it has been in the past, and the TCJA is not a new phenomenon either. If the TCJA were truly a problem, a utility would be constraining its capital expenditures, not touting those same capital expenditures to equity investors. In fact, CNP called the TCJA a "[redacted]"[37] and "[redacted]" in a presentation to S&P. CNP also noted that tax reform was [redacted][38]

V. CONCLUSION

Q. WHAT ARE YOUR RECOMMENDATIONS?

A. To protect CEHE and its ratepayers from the financial and business risk of its parent and affiliates, financial ring-fencing similar to Oncor's is appropriate. CNP's increased

[36] Fitch Report (Apr. 13, 2018), included in Schedule II-C-2.10 of the rate filing package.
[37] CEHE Response to TCUC 1-02 in attachment SP 2018 CenterPoint Energy at 2-3. (HSPM)
[38] *Id.* at 29.

leverage and business risk from its recent acquisition of Vectren has already caused one rating agency to downgrade CEHE. Increased reliance by CNP on dividends from CEHE would also be credit-negative for CEHE. While CEHE's credit rating remains solidly investment grade today, that is actually the best time to implement financial ring-fencing rather than attempting to do so at a time of deteriorating credit. Implementation of ring-fencing should be a credit positive and should benefit both CEHE and its customers. This approach to managing CEHE's financial risk and ability to provide reliable service should be pursued instead of awarding an even higher return on equity and/or equity ratio.

Q. DOES THIS COMPLETE YOUR TESTIMONY?

A. Yes.

AFFIDAVIT OF CHARLES S. GRIFFEY

COMES NOW Charles S. Griffey, a proper age and duly sworn, that the attached Testimony in the above-captioned matter was prepared by him or under his supervision and control and that it is true and correct to the best of his knowledge and belief, and would be same if given orally under oath.

Charles S. Griffey

STATE OF SOUTH CAROLINA

COUNTY OF BEAUFORT

SUBSCRIBED AND SWORN to before me this 5th day of June, 19. Witness my hand and official seal.

Notary Public

ROSA NEWTON
COMM. EXP.
NOTARY
PUBLIC
10-20-2020
SOUTH CAROLINA

Exhibit CSG-1
Statement of Qualifications

CAREER SUMMARY

Senior energy executive who managed the regulatory planning and government affairs function for one of the nation's leading competitive electricity companies. Consulted closely with other senior executives to devise and implement commercial/regulatory/political strategies to manage risks and position the firm to be successful in competitive wholesale and retail electric markets. Recognized as leader in electric market design and as an expert witness on electric policy, market design, and resource planning matters. Skilled in:

- ◊ Corporate Strategy/Risk Management
- ◊ Electric Market Design
- ◊ Policy Advocacy
- ◊ Power Plant Economics
- ◊ Rate Setting and Design
- ◊ Retail and Wholesale Competition

PROFESSIONAL EXPERIENCE

Energy Consultant, Houston, Texas **2009 – Present**

Provide consulting services across the energy value chain, from generation to customer sales for both electricity and natural gas. Clients include independent power producers, large industrial consumers, and retail electric providers. Sample engagements include:

- Expert testimony on utility mergers
- Expert testimony and consulting on resource planning and early retirement
- Expert testimony and consulting expert on cost of combined cycle gas turbines
- Expert testimony on rate case issues
- Expert testimony on transmission planning
- Expert testimony on mitigation of generation market power
- Expert testimony on prudence of a decision to construct a coal-fired generating plant
- Expert testimony on distributed generation
- Expert testimony in civil litigation regarding commercial reasonability of retail electric contracts.
- Consulting services related to decision to build cogeneration at industrial facilities
- Consulting services to large industrial companies regarding electric market design.
- Consulting services to a large retail electric provider regarding market opportunities and regulatory/government affairs.
- Consulting services to a developer of compressed air energy storage on regulatory and government affairs.
- Expert testimony regarding market design, the meaning of PURPA and the appropriate payment to Qualifying Facilities for power provided to the grid.
- Expert testimony in a contract dispute between a retail electric provider and a customer regarding pass-through charges.
- Consulting expert on interpretation of purchased power contract between an investor-owned utility and a municipally-owned utility.
- Expert testimony on retail rate design.
- Develop and implement advocacy plan to avoid power plant retirements from a proposed policy to ban once-through cooling in a coastal state; manage compliance filing for two power plants.
- Advise on the economics of energy storage technologies.
- Advise on the feasibility of opening additional retail gas markets to competition.
- Advise on how to structure a regulatory and government affairs organization.

Adjunct Professor of Management at Rice University's Jones Graduate School of Business 2010-2016, specializing in the economics of the electricity value chain, management of risk, and related public policy considerations.

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Statement of Qualifications

RRI ENERGY (RELIANT ENERGY, INC.), Houston, Texas **1989 – 2009**

Sr. VP Regulatory Affairs and Market Design *2007 - 2009*

Reporting directly to the CEO, co-managed the company's national, regional, and state level government, regulatory, community affairs, and communications functions, with emphasis on electricity regulation, competitive market design, and associated legislation. Oversaw a staff of 70 people and a managed a budget of $30 million.

- Managed to an outcome wherein no laws or regulations harmful to the company were passed.
- Analyzed risk associated with the company's retail business (~ 1.8 million customers) and the wholesale business (~14,000 Mw installed capacity) and implemented regulatory risk mitigation strategies that aligned with corporate vision and goals.
- Coordinated policy between retail and wholesale business units to establish sound policy and design principles and to present a single voice to external stakeholders.
- Testified on electric policy, smart energy, and demand response in legislative, regulatory, and judicial arenas, drawing effectively on significant industry knowledge and experience.
- Achieved outstanding results on employee survey regarding departmental leadership and management capability (100% score on treating employees fairly, holding them accountable, making use of their skills, trusting them to make appropriate decisions, and improving own performance based on employee feedback).

Sr. VP Regulatory Affairs *2003 - 2007*

- Managed Reliant's national regulatory and market design efforts and legislative efforts in Texas.
  - Achieved Texas PUC ruling on excess mitigation credits that effectively averted requirement that Reliant Energy pay $375 million to CenterPoint Energy to lower stranded cost; and,
  - Successfully designed rules at Texas PUC regarding provider of last resort, price to beat, customer protections, and financial standards for retailers.
- Collaborated closely with legislative and executive branches in Texas, including Governor, Lt. Governor, Speaker, Chairs and members of Senate Business and Commerce and House Regulated Industries to achieve:
  - Successful transition to retail competition in Texas, creating a political/regulatory environment to allow Reliant's $500 million contribution margin retail business the opportunity to thrive with appropriate government oversight; and,
  - Settlement of the political/regulatory intervention in retail pricing following Hurricanes Katrina and Rita. The settlement led to a phase-in of price increases which set the stage for a successful 2007 legislative session and emergence into full competition
- Provided expert witness testimony in regulatory, government, and court proceedings.
- Intimately involved in settlement of Reliant Energy's issues regarding the 2000-2001 California Energy crisis. Led response to FERC's March 2003 report accusing Reliant Energy of "churning" in its purchases of natural gas for its California power plants.

VP Regulatory Strategy and Planning *1998 - 2003*

Directed Reliant's Texas regulatory and market design efforts. Responsible for financial forecasting, rates, and capital budgeting for Reliant Energy HL&P through 2001, including analysis of capital investment and mothball decisions, power purchase and sales agreements.

- Created and developed risk adjusted wholesale price forecasting tool that provided a distribution of future prices for use in investment analysis to value real options in the generation fleet and the retail contract portfolio.

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- Led regulatory strategy to move Reliant Energy from being a regulated utility to becoming separate companies – a wires-only transmission and distribution utility and a company involved in competitive generation and retail activities.
- Heavily involved in passage and implementation of SB 7, the Texas law that moved ERCOT to a competitive market, including:
  - Competitive market design,
  - IPO of Reliant Resources, its option to buy Texas Genco, and use of that option price as the stranded cost valuation method for purposes of the statutory stranded cost true-up, and
  - Settlement of initial Price to Beat rate, and securitization of regulatory assets worth $760 million.

Various positions in Corporate/Regulatory Planning *1989 - 1998*

Led a variety of processes that involved evaluation and establishment of company's generation, resource planning, rate setting, and load forecasting, including power plants, energy efficiency, and demand response.

AUSTIN ENERGY, Austin, Texas **1988 - 1989**
Manager, Gas Purchasing and Fuel Planning

Held overall responsibility for purchasing natural gas for the utility's power plants, as well as planning construction of second gas pipeline to serve power plants.

PUBLIC UTILITY COMMISSION OF TEXAS, Austin, Texas **1986 - 1988**
Fuel Analyst

Investigated prudence of utility fuel and power procurement and integrated resource planning.

BECHTEL GROUP, INC., Houston, Texas **1981 - 1983**

Process Design Engineer

Worked on the Coolwater Coal Gasification Power Plant, the first IGCC ever built.

EDUCATION

JESSE H. JONES GRADUATE SCHOOL OF BUSINESS, RICE UNIVERSITY, Houston, Texas
Master of Business and Public Management, *1985*
Majors - Finance and Entrepreneurship
Honors - Outstanding Finance Student

RICE UNIVERSITY, Houston, Texas
BS, Chemical Engineering, *1981*

PROFESSIONAL CERTIFICATIONS

CHARTERED FINANCIAL ANALYST, No. 12245

PROFESSIONAL ENGINEER IN THE STATE OF TEXAS, NO. 73184

Exhibit CSG-1

Statement of Qualifications

Testimony before the Public Utility Commission *of* Texas

Docket	On behalf of	Description
6032	*PUCT Staff*	*Petition of Central Power & Light Company for fixing of refund with interest and amendment of monthly interim fuel factor. Performed fuel forecast.*
6611	*PUCT Staff*	*Petition of Southwestem Electric Power Company for recovery of unrecovered fuel expense with interest thereon and the setting of revised fixed fuel factors. Performed prudence investigation which resulted in fuel refunds; fuel forecast.*
6765	*PUCT Staff*	*Application by Houston Lighting & Power Company for authority to change rates. Prudence of fuel procurement and fuel forecast.*
6963	*PUCT Staff*	*Investigation regarding the reasonableness of Houston Lighting & Power Company's Spring Creek and Ken McGee Coal Contract Costs. Prudence of long-term coal contracts.*
6992	*PUCT Staff*	*Investigation regarding Texas-New Mexico Power Company for a Certificate of Convenience and Necessity for a proposed generating station (coal-fired) within Robertson County. Economic study of best and most economic option for utility resource acquisition.*
7195/6755	*PUCT*	*Application of Gulf States Utilities Company for authority to change rates. Inquiry of the Public Utility Commission of Texas into the prudence and efficiency of fhe planning and management of the construction of the River Bend Nuclear Generating Station. Prudence of fuel procurement and fuel forecast* .
7460	*PUCT Staff*	*Application of El Paso Electric Company for authority to change rates. Prudence of fuel procurement and fuel forecast.*
7510	*PUCT Staff*	*Application of West Texas Utilities Company for authority to change rates. Prudence of fuel procurement and fuel forecast.*
7512	*PUCT Staff*	*Application of Lower Colorado River Authority for authority to change rates. Prudence of fuel procurement and fuel forecast.*
10473	*HL&P*	*Notice of Intent of Houston Lighting & Power Company for a Certificate of Convenience and Necessity for DuPont Project, Webster Units 1 & 2 Refurbishment Project, and Greens Bayou Units 3 & 4 Refurbishment Project. Economic study of resource procurement.*
10832	*HL&P*	*Houston Lighting & Power Company's Standard Avoided Cost Calculation for the Purchase of Firm Energy and Capacity from Qualifying Facilities Pursuant to Subst. R. 23.66(h)(3). History of resource planning and appropriateness of marginal cost.*
I1000	*HL&P*	*Application of Houston Lighting & Power Company for a Certificate of Convenience and Necessity for the DuPont Project. Economic study of resource procurement.*
11999	*HL&P*	*Application of Houston Lighting & Power Company for Approval of Tariff for Economic Improvement Service - Rate Schedule EIS.* Appropriateness of marginal cost.
12138	*HL&P*	*Notice of Intent of Houston Lighting & Power Company for a Certificate of Convenience and Necessity for Advanced Gas Turbine Projects. Economic study of resource procurement.*
12065	*HL&P*	*Complaint of Kenneth D. Williams Against Houston Lighting & Power Company,* Prudence of utility planning; industry restructuring.

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Testimony before the Public Utility Commission *of* Texas

Docket	On behalf of	Description
12957	*HL&P*	*Application of Houston Lighting & Power Company for Approval of Experimental Tariff for Special Contract Pricing, Rate Schedule SCP. Appropriateness of marginal cost.*
I5000	*HL&P*	*An Investigation into Issues Related to the Electric Utility Industry and Regulatory Restructuring.* Industry restructuring.
15001	*HL&P*	*An Investigation into Potentially Stranded Investment in the Electric Utility Industry in Texas.* Industry restructuring.
15002	*HL&P*	*An Investigation into the Scope of Competifion in the Electric Utility Industry in Texas.* industry restructuring.
21665	*Reliant*	*Application* of *Reliant Energy, Incorporated for a Financing Order to Securitize Regulatory Assets and Other Qualified Costs.* Industry restructuring and securitization of regulatory assets.
21956	*Reliant*	*Application of Reliant Energy, Inc. for Approval of Business Separation Plan.* Industry restructuring.
22355	*Reliant*	*Application* of *Reliant Energy HL&P for Approval of Unbundled Cost Of Service Rate Pursuant to PURA $39.207 and Public Utility Commission Substantive Rules25.344.* Industry restructuring and recovery of stranded costs.
23950	*Reliant*	*Petition* of *Reliant Energy, Inc. to Establish Price to Beat Fuel Factor and Request for Good Cause Exception to Subst. R.25.47.* Industry restructuring and setting of default service rate.
24790	*Reliant*	*Petition to Appoint Provider of Last Resort Pursuant to PURA 39.7 06 for Residential and Small Non-Residential Customers in the Entergy, TXU East-DFW, and TXU West-DFW Service Areas and for Large Non-Residential Customers in the Reliant North, Reliant South, CPL Gulf Coast, CPL Valley, WTU, and SWEPCO Service Areas.* Industry restructuring and setting of POLR rate.
29526	*Reliant*	*Application Of CenterPoinf Energy Houston Electric For A True-Up Filing.* Rate design for stranded cost true-up
35620	*Reliant*	*Application of CenetrPoint Houston Electric LLC for Approval to Implement Advanced Meter Information Network Pursuant to PURA 39.107(i).* Benefits of smart meter deployment.
37361	*Occidental*	*Application of Southwestern Public Service Company for Authority to Revise Its Tariff for Purchase of Non-Firm Energy from Qualifying Facilities.* Appropriate price to pay for non-firm energy deliveries in SPP
38448	*Just Energy*	*Petition of Just Energy Texas, LP for the Commission to Resolve a Billing Dispute.* Nature of unaccounted for energy and how to calculate the amount of unaccounted for energy to bill a customer under a contract allowing pass-through of such charges
40443	*TIEC*	*Application Of Southwestern Electric Power Company For Authority To Change Rates And Reconcile Fuel Costs.* Prudence of decision to continue construction of Turk coal plant and impact of Turk Plant on Texas
40449	*Occidental*	*Complaint of Ascendant Renewable Energy Corp. Against Southwestern Public Service.* Appropriate interconnection procedure for a distribution level Qualifying Facility in SPP and interpretation of SPS tariffs and contracts
40545	*PUCT Staff*	*Petition of Calpine for Approval of Voluntary Mitigation Plan.* Evaluation of market power mitigation under proposed plan

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41223 *Occidental*	*Application Of Entergy Texas, Inc. and ITC Holdings Corp. for Approval of Change of Ownership and Control of Transmission Business.* Determination of whether transaction is in the public interest
41437 *Occidental*	*Application of EntergyTexas, Inc. for Approval of LQR Tariff.* Appropriate price to pay for deliveries of non-firm energy from QFs
42511 *TIEC/Luminant*	*Complaint Of Calpine Corporation And NRG Energy, Inc., Against The Electric Reliability Council Of Texas And Appeal Of Decision Concerning The Houston Import Project.* Determination of whether ERCOT followed its procedures in approving the Houston Import Project
43695 *Occidental*	*Application Of Southwestern Public Service Company For Authority To Change Rates.* Issues regarding post test year adjustments, transmission charges, and cost allocation and rate design
44547 *TIEC/Luminant*	*Application of Centerpoint Energy Houston Electric, LLC to Amend a Certificate Of Convenience and Necessity for a Proposed 345-Kv Transmission Line Within Grimes, Harris, And Waller Counties.* Appropriate transmission planning procedures.
45188 *TIEC*	*Joint Report And Application Of Oncor Electric Delivery Company Llc, Ovation Acquisition I, L.L.C., Ovation Acquisition Ii, L.L.C., And Shary Holdings, L.L.C. For Regulatory Approvals Pursuant To Pura §§ 14.101, 37.154, 39.262(L)-(M), And 39.915.* Public interest findings with respect to the sale/transfer/merger of a utility with a REIT.
45624 *TIEC*	*Application Of The City Of Garland, Texas, For A Certificate Of Convenience And Necessity For The Proposed Rusk To Panola Double-Circuit 345-Kv Transmission Line In Rusk And Panola Counties, Texas.* Conditions for the line to be in the public interest and proper way to do a cost/benefit analysis for a DC tie.
46050 *TIEC*	*Application Of AEP Texas Central Company, AEP Texas North Company, And AEP Utilities, Inc. For Approval Of Merger.* Estimation of merger savings.
46238 *TIEC*	*Joint Report And Application of Oncor Electric Delivery Company LLC And Nextera Energy, Inc. for Regulatory Approvals Pursuant to Pura §§14.101, 39.262 And 39.915.* Public interest findings with respect to the sale/transfer/merger of a utility.
45414 *TIEC*	*Review of the Rates of Sharyland Utilities, L.P., Establishment of Rates for Sharyland Distribution & Transmission Services, L.L.C., and Request For Grant of A Certificate of Convenience And Necessity and Transfer of Certificate Rights.* Whether to include federal income tax as expense of a public utility REIT, issues regarding transfer of development of transmission lines among affiliates of electric utility, recovery of regulatory asset.
46416 *TIEC*	*Application of Entergy Texas, Inc. for a Certificate of Convenience and Necessity to Construct Montgomery County Power Station.* Appropriate method to use to analyze resources of different lives, and appropriateness of including imputed debt as a cost for PPAs.
46831 *FMI*	*Application of El Paso Electric Company to Change Rates.* Appropriateness of cost allocation, issues regarding interruptible rates and customers contracts, rates for residential distributed solar resources, possible directed purchase options.
47576 *TIEC*	*Application of The City of Lubbock Through Lubbock Power and Light for Authority to Connect a Portion of Its System with the Electric Reliability Council of Texas.* Appropriate method to evaluate whether a utility outside of ERCOT joining ERCOT is in the public interest.
48400 *TIEC*	*Joint Application of Rayburn Country Electric Cooperative, Inc. and Lone Star Transmission, LLC to Transfer Load to Ercot,and for Sale of Transmission Facilities and Transfer of Certificate Rights in Henderson and Van Zandt Counties.* Evaluate whether a utility outside of ERCOT joining ERCOT is in the public interest and best method to interconnect to ERCOT.

48929 *TIEC* — *Joint Report And Application Of Oncor Electric Delivery Company LLC, Sharyland Distribution & Transmission Services, L.L.C., Sharyland Utilities, L.P., And Sempra Energy For Regulatory Approvals Under Pura §§ 14.101, 37.154, 39.262, And 39.915.* Public interest findings with respect to the sale/transfer/merger of a utility.

Colorado Public Service Commission

16A-0396E *Coalition of Ratepayers* — *In The Matter Of The Application Of Public Service Company Of Colorado For Approval Of Its 2016 Electric Resource Plan.* Whether retirement of two coal units and implementation of the Colorado Energy Plan is the lowest cost alternative for ratepayers.

17A-0797E *Coalition of Ratepayers* — *Re: In The Matter Of The Application Of Public Service Company Of Colorado To Modify The Depreciation Schedules For The Early Retirement Of Comanche 1 And Comanche 2 Generating Units, Establish A Regulatory Asset To Collect Incremental Depreciation, Reduce The Renewable Energy Standard Adjustment Collection To One Percent, And Implement A General Rate Schedule Adjustment, Contingent On The Approval Of The Colorado Energy Plan Portfolio In Proceeding No. 16A-0396E.*Issues with PSCo's evaluation of economics of early retirement in favor of Colorado Energy Plan and deferral of accelerated depreciation into a regulatory asset.

Indiana Utility Regulatory Commission

45806 Alliance Coal — *Verified Petition of Southern Indiana Gas and Electric Company D/B/A Vectren Energy Delivery of Indiana, Inc., for: (1) Authority to Construct, Own and Operate a Solar Energy Project and a Finding that Such Project Constitutes a Clean Energy Project Pursuant to Ind. Code Ch. 8-1-8.8; (2) Issuance of a Certificate Of Public Convenience And Necessity for the Construction of the Solar Energy Project Pursuant to Ind. Code Ch. 8-1- 8.5; and (3) Authority to Timely Recover Costs Incurred During Construction and Operation of the Project in Accordance with Ind. Code § 8-1-8.5-6.5 and Ind. Code § 8-1- 8.8-11.* Economics of a solar project in Indiana.

45159 ICARE, ICC — *Petition Of Northern Indiana Public Service Company LLC Pursuant To Ind. Code §§ 8-1- 2- 42.7, 8- 1- 2- 61 And, Ind. Code §8- 1- 2.5- 6 For (1) Authority To Modify Its Rates And Charges For Electric Utility Service Through A Phase In Of Rates; (2) Approval Of New Schedules Of Rates And Charges, General Rules And Regulations, And Riders; (3) Approval Of Revised Common And Electric Depreciation Rates Applicable To Its Electric Plant In Service; (4) Approval Of Necessary And Appropriate Accounting Relief; And (5) Approval Of A New Service Structure For Industrial Rates.* Flaws in NIPSCO's Integrated Resource Plan.

45194 ICC — *Verified Joint Petition Of Northern Indiana Public Service Company Llc ("Nipsco") And Rosewater Wind Generation Llc (The "Joint Venture") For (1) Issuance To Nipsco Of A Certificate Of Public Convenience And Necessity For The Purchase And Acquisition Of A 102 Mw Wind Farm ("The Rosewater Project"); (2) Approval Of The Rosewater Project As A Clean Energy Project Under Ind. Code § 8-1- 8.8- 11; (3) Approval Of Ratemaking And Accounting Treatment Associated With The Rosewater Project; (4) Authority To Establish Amortization Rates For Nipsco's Investment In The Joint Venture; (5) Approval Pursuant To Ind. Code § 8-1- 2.5- 6 Of An Alternative Regulatory Plan Including Establishment Of Joint Venture Through Which The Rosewater Project Will Support Nipsco's Generation Fleet And The Reflection In Nipsco's Net Original Cost Rate Base Of Its Investment In Joint Venture; (6) Approval Of Purchased Power Agreements Through Which Nipsco Will Receive The Energy Generated By The Rosewater Project, Including Timely Cost Recovery Pursuant To Ind. Code § 8-1- 8.8- 11 Through Nipsco's Fuel Adjustment Clause; (7) Authority To Defer Amortization And To Accrue Post-In Service Carrying Charges On Nipsco's Investment In Joint Venture; (8) To The Extent Generally Accepted Accounting Principles Would Treat Any Aspect Of Joint Venture As Debt On Nipsco's Financial Statements, Approval Of Financing; (9) Approval Of An Alternative Regulatory Plan For Nipsco In Order To Facilitate The Implementation Of The Rosewater Project; And (10) To*

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The Extent Necessary, Issuance Of An Order Pursuant To Ind. Code § 8-1- 2.5- 5 Declining To Exercise Jurisdiction Over Joint Venture As A Public Utility. Reasonableness of proposal to build a 102 MW of wind project.

45195 ICC — *Verified Petition Of Northern Indiana Public Service Company LLC For Approval Pursuant To Ind. Code §§ 8-1- 2- 42(A), 8- 1- 8.8- 11, And To The Extent Necessary Ind. Code §8-1- 2.5- 6, Of A Renewable Energy Power Purchase Agreement With Jordan Creek Wind Farm LLC, Including Timely Cost Recovery.* Reasonableness of proposal to purchase 400 Mw of wind energy.

45196 ICC — *Verified Petition Of Northern Indiana Public Service Company LLC For Approval Pursuant To Ind. Code §§ 8-1-2-42(A), 8-1-8.8-11, And To The Extent Necessary Ind. Code § 8-1-2.5-6, Of A Renewable Energy Power Purchase Agreement With Roaming Bison Wind, LLC, Including Timely Cost Recovery.* Reasonableness of proposal to purchase 300 Mw of wind energy.

Kansas Corporation Commission

12-KG&E-17-CON *Occidental* — *Application Of Kansas Gas And Electric Company For Approval Of The Energy Supply Agreement Between Kansas Gas And Electric Company And Frontier El Dorado Refining Company LLC.* Economics of special contracts and customer bypass of utility service.

LOUISIANA PUBLIC SERVICE COMMISSION

Dockets	On behalf of	Description
U-32538	*Occidental*	*In Re: Joint Application of Entergy Louisiana, LLC, Entergy Gulf States Louisiana, LLC, Mid South Transco, LLC, Transmission Company Louisiana I, LLC, Transmission Company Louisiana II, LLC, ITC Holdings Corp. and ITC MidSouth LLC for Approval of Change of Ownership of Electric Trnasmission Businesses, For Certain Cost-Recovery Related Adjustments and for Related Relief.* Determination of whether transaction is in the public interest
U-33950	*Occidental*	*In Re: Entergy Louisiana, LLC Compliance Submission Regarding Deactivation Of Little Gypsy 1, Ninemile 3, And Willow Glen 2 And 4, As Required By Order No. U – 33510.* Evaluation of economics of decision to deactivate Willow Glen 2 and 4.
U-34283	*Occidental*	*In Re: Application of Entergy Louisiana, LLC for Approval to Construct Lake Charles Power Station, and for Cost Recovery.* Appropriate method to use to analyze resources of different lives, and appropriateness of including imputed debt as a cost for PPAs.
U-34447	*Occidental*	*Application Of Entergy Louisiana , LLC Regarding Continued Participation In The Midcontinent Independent System Operator, Inc. Regional Transmission Organization.* Recommended conditions to for ELL to continue membership in MISO, recommended change case for measurement of benefits of MISO membership.

MARYLAND PUBLIC SERVICE COMMISSION

9063	*Reliant*	*In The matter of The Optimal Market Design For The Electric Industry In Maryland.* Wholesale and Retail Market design.

Mississippi Public Service Commission

2015-UN-80	*Greenleaf*	*Notice Of Intent Of Mississippi Power Company For A Change In Rates Supported By A Conventional Rate Filing Or, In The Alternative, By A Rate Mitigation Plan In Connection With The Kemper County IGCC Project.* Amount of investment to count as prudent for the CCGT portion of an IGCC. Reasons why Kemper IGCC project should be abandoned.
2017-AD-112	*Greenleaf*	*Encouraging Stipulation Of Matters In Connection With The Kemper County IGCC Project.* Amount of investment in Kemper CCGT that should be allowed in rates, and setting of O&M expense and annual revenue requirement.

Pennsylvania Public Utilities Commission

P-00032071	*Reliant*	*Duquesnse Light Company Petition for Approval of Plan for Post Transition POLR Service.* Wholesale and Retail Market design and supply procurement.
P-00052188	*RESA*[1]	*Petition of Pennsylvania Power Co. for Approval of Interim PLR Supply Plan.* Wholesale and Retail Market design.

Testimony Filed with the Federal Energy Regulatory Commission

FERC Dockets	**On behalf of**	**Description**
ER98-927-000	*Reliant*	*Application of Reliant Energy Mandalay, L. L.C., to sell energy, capacity and ancillary services at market based rates.* Market Power study.
ER98-928400	*Reliant*	*Application of Reliant Energy Ellwood, L.L. C., to sell energy, capacity and ancillary services at market based rates.* Market Power study.
ER98-930-000	*Reliant*	*Application of Reliant Energy Etiwanda, L.L. C., to sell energy, capacity and ancillary services at market based rates.* Market Power study.
ER98-93 1400	*Reliant*	*Application* of *Reliant Energy Cool Water, L. L. C., to sell energy, capacity and ancillary services at market based rates.* Market Power study.
ER98-2878-000	*Reliant*	*Application of Reliant Energy Ormond Beach, L. L C.,* to *sell energy, capacity and ancillary services at market based rates.* Market Power study.
ER99-3 143-000	*Reliant*	*Application of Reliant Energy Indian River, L. L. C., to sell energy, capacity and ancillary services at market based rates.* Market Power study.
EL13-61-000	*Occidental*	*Exelon Wind et al Complaint and Petition for Enforcement.* Determination of whether a Legally Enforceable Obligation was established between a QF and a utility
ER19-1486-000	*Load/Customer Coalition*	*PJM Interconnection, L.L.C.* Comments on ORDC design
EL19-58-000	*Load/Customer Coalition*	*PJM Interconnection, L.L.C.* Comments on ORDC design

CIVIL LITIGATION

CAUSE NO. C-356-10-A	*Lorali, Ltd, Danhana, Ltd, RGV Warehouse, Ltd, and Richann, Inc. v. Sempra Energy Soultion, LLC and Priority Power, LL, 92nd Judicial Court, Hidalgo County, Texas.*

[1] Retail Electric Suppliers' Association

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	Commercial Reasonability of Retail Electric Contracts and Wholesale and Retail Market Design.
CAUSE NO. A-09-CA-917-SS	*JD Wind v. Public Utility Commission of Texas, United States District Court, Western District of Texas, Austin Division.* History of PURPA implementation and avoided cost.
CAUSE NO. D-1-GN-10-004130	*Exelon Wind v. Public Utility Commission of Texas, State District Court, Austin, Texas.* History of PURPA implementation and avoided cost.
CAUSE NO. D-1-GN-12-0021S6	*Lower Colorado River Authority v. Central Texas Electric Cooperative, Fayette Electric Cooperative and San Bernard Electric Cooperative.* Damages calculation for breach of purchased power contract.
CAUSE NO. 121-001-B	*Lower Colorado River Authority v.City Of Kerrville, Acting By And Through Kerrville Public Utility Board.* Damages calculation for breach of purchased power contract.
CAUSE NO. 3:08-cv-780-CWR-LRA	*The State Of Mississippi, Ex Rel. Jim Hood, Attorney General For The State Of Mississippi, Plaintiff, v. Entergy Mississippi, Inc., Et Al., Defendants.* Reasonableness of power procurement by utility.

LEGISLATIVE TESTIMONY

Joint Meeting of Texas House Interim Committee of Natural Resources and House Regulated Industries, May 2009 – Advanced Metering

Texas House Regulated Industries, February 2007 - State of the Electric Industry

Texas Senate Business and Commerce, February 2007 – State of the Electric Industry

Texas House Regulated Industries, March 2005 - State of the Electric Industry

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WHEN "WHAT GOES UP" DOES NOT COME DOWN:
RECENT TRENDS IN UTILITY RETURNS

Charles S. Griffey, P.E., CFA[1]
February 15, 2017

I. Executive Summary

- *Returns on Equity (ROEs) granted to regulated utilities are near an all-time high relative to interest rates.*
- *Yet, the risks faced by regulated utilities are at an all-time low.*
- *Returns achieved by regulated utilities are equal to or greater than the returns of much riskier enterprises.*
- *Utilities could attract necessary capital at much lower awarded ROEs. Excessive ROEs encourage overbuilding and harm utility customers.*
- *Policymakers should reassess the ROEs being granted to utilities, and should be skeptical of requests for additional alternate rate-setting mechanisms without significant ROE reductions.*

II. Overview

Awarded and achieved utility ROEs have been much higher than necessary to induce appropriate investment in recent years. Utility ROEs have failed to track either the utilities' level of regulatory risk or general economic indicators. This trend can drive inefficient investment decisions by utilities and inflates rates for utility customers.

The risks faced by most utilities today are significantly lower than over the last three or four decades.[2] For example, utilities are generally not attempting to place capital-intensive coal and nuclear plants in rates today, as natural-gas-fired generation has emerged as the preferred plant technology. Natural gas plants have a lower up-front capital cost, so they carry significantly less financial risk in a regulatory review than an expensive coal or nuclear plant.[3]

[1] Mr. Griffey is an energy consultant whose clients have included large industrial customers, generators, retail electric providers, electric cooperatives, municipal utilities, and the Staff of the Public Utility Commission of Texas. He is a former utility and energy company executive and is Adjunct Professor of Management at Rice University's Jones Business School.

[2] A view shared by the rating agency Moody's Investor Service (Sector-in-Depth Analysis, March 2015): "Across the US, we continue to see regulators approving mechanisms that allow for more timely recovery of costs, a material credit positive. These mechanisms, which keep utilities' business risk profile low compared to most industrial corporate sectors, include: formulaic rate structures; special purpose trackers or riders; decoupling programs (which delink volumes from revenue); the use of future test years or other pre-approval arrangements. We also see a sustained increase in the frequency of rate case filings."

[3] https://www.eia.gov/forecasts/capitalcost/pdf/updated_capcost.pdf

The risks and uncertainty associated with transitioning to retail competition—such as the potential for stranded utility generation investment—have largely been settled, further reducing utilities' risk. Rate riders, interim "cost recovery factors," and other features that allow a utility to increase its rates without a full rate review have also proliferated over the past two decades, allowing accelerated capital recovery and substantially reducing regulatory lag in the ratemaking process. Over time, these and other factors have materially reduced risk for regulated utilities, making high risk premiums unnecessary to attract capital or induce investment.

Yet, ROEs for regulated utilities are higher than ever relative to US Treasuries. ROEs have not been significantly reduced to recognize the lower risk faced by regulated utilities today, or even general economic trends. Utility ROEs have not fallen at nearly the same rate as interest rates. One cause of this "stickiness" in regulated utility ROEs (compared to interest rates) is the peer-group methodology used by most ROE witnesses and often adopted by regulators. This approach is inherently backward-looking, and when each utility's ROE is based on the ROEs granted to the utility's peers, inflated utility ROEs are self-perpetuating. Further, as Public Utilities Fortnightly observed in its 2016 Annual Rate Case Survey, the trend of sustained, unnecessarily high ROEs for utilities is also a product of utility scare tactics in regulatory proceedings, where risk-averse regulators are led to believe that appropriately reducing ROEs will deter necessary investment—despite robust evidence to the contrary.[4] As a result of these and other factors, utilities are receiving premium ROEs today compared to other industries.

The "risk premium" being granted to utility shareholders is now higher than it has ever been over the last 35 years. Excessive utility ROEs are detrimental to utility customers and the economy as a whole. From a societal standpoint, granting ROEs that are higher than necessary to attract investment creates an inefficient allocation of capital, diverting available funds away from more efficient investments. From the utility customer perspective, if a utility's awarded and/or achieved ROE is higher than necessary to attract capital, customers pay higher rates without receiving any corresponding benefit. Inflated ROEs also encourage utilities to make inefficient investment decisions so that they can earn a return on additional capital, harming both society and customers. As one observer has aptly noted, "When allowed equity returns exceed the true cost of equity, utilities have an artificial incentive to expand utility facilities upon which they can earn that extra return, including favoring themselves over others in resource procurement."[5] This compounds the excess earnings for utilities and further increases rates for customers. In addition, the combination of low debt costs and high utility ROEs in recent years has encouraged a type of arbitrage known as "back-leveraging" or "double-leveraging," where a utility parent or holding company borrows money at a low rate to use as equity at the utility level. This common strategy of translating low cost debt at the parent into equity returns at the utility increases returns for shareholders even beyond the premium levels authorized by regulators.[6]

[4] Cross, P., "2016 Annual Rate Case Survey," Public Utilities Fortnightly (Nov. 2016).

[5] *See* Huntoon, S., "Nice Work If You Can Get It," Public Utilities Fortnightly (Aug. 2016).

[6] Notably, "back-leveraging" also creates significant risk for utility customers by increasing the financial stakes of a default, which could compromise the utility's financial integrity and impede appropriate investment to maintain reliability.

Importantly, an excessive utility ROE has more than a dollar-for-dollar impact on customer rates because rates are grossed up to cover federal income tax liability on utility earnings. Take, for example, a utility with a total rate base (total investment) of $1 billion, and a capital structure of 40% equity, 60% debt, which is common. A one percent increase in this utility's ROE would not just translate to a rate increase of $4 million, but to ***$6.2 million*** because the return would be grossed up to cover corporate federal income tax liability (roughly 35%) on the additional earnings.[7] Investor-owned utilities in Texas have an aggregate rate base of approximately $25 billion.[8] Historically, a typical utility risk premium would be in the range of 450 basis points above Treasuries (in other words, if 30-year treasury bonds yield 3%, the utility ROE would have been 7.5%). However, risk premiums have been on the order of 650 basis points over the last several years, with Treasury bonds at 3% and utility ROEs at 9.5%. In Texas, this 200 basis point differential means, all else being equal, rates could have been reduced by approximately $300 - $350 million[9] annually without adversely impacting investment in utility infrastructure.

As a result of all these factors, utilities have been very profitable investment vehicles in the current economic climate,[10] and investors are eager to provide capital for utility infrastructure. Even if utilities do not achieve their allowed ROE, they have been successful in achieving a return in excess of their cost of capital.[11] Thus, there is no shortage of interest from both traditional utilities and non-traditional players such as pension funds, sovereign wealth funds, and private equity groups to invest in utility projects. This is, generally speaking, because the actual cost of capital required for investment is much lower than the ROEs being granted in the utility sector. A recent analysis concluded that most utility investors are looking for an annual rate of return around 7.5%,[12] while awarded utility ROEs have continued to be around 10%.[13] The result is a risk-adjusted rate of return that is superior to competing investments, and

[7] $1 billion rate base * 40% equity in capital structure * 1% increase = $4 million. Tax gross-up is $4 million/(1-0.35) = $6.2 million.

[8] *See* Tietjen, D., "Alternative Ratemaking: Is It Time For A Shock To The Rate-Setting System?," presented to Gulf Coast Power Association, November 21, 2016. This figure does not include transmission investments held by municipally owned utilities or electric cooperatives, which are also included in the postage stamp transmission rates in ERCOT. Rate base equals net plant in service of $33 billion from Mr. Tietjen's presentation, less ADFIT of $8 billion, taken from each utility's earnings monitoring reports in the following docket: http://bit.ly/2ibTVke

[9] $25 billion * 40% equity * 2%/(1-0.35) = $308 million. Non-ERCOT utilities typically have approximately 50% equity in their capital structure, not the 40% used in Transmission and Distribution utilities in ERCOT, so the actual amount would be in excess of $308 million.

[10] Hyman, L. and Tilles, W., "Don't Cry for Utility Shareholders, America," Public Utilities Fortnightly at 65 (Oct. 2016).

[11] The cost of capital is set by the market, not regulators.

[12] Hyman, L. and Tilles, W., "Don't Cry for Utility Shareholders, America," Public Utilities Fortnightly at 65 (Oct. 2016).

[13] *See* Cross, P., "2016 Annual Rate Case Survey," Public Utilities Fortnightly (Nov. 2016); *see also* Huntoon, S., "Nice Work If You Can Get It," Public Utilities Fortnightly (Aug. 2016) at n. 8, citing recent FERC-issues ROEs in the 10% range for New England utilities.

higher than necessary to induce investment. The keen interest of numerous investors in recent utility mergers and acquisitions at premium prices is another sign of this phenomenon.[14]

The evidence showing that awarded utility ROEs far exceed the levels that actual risk factors and general economic trends would support is substantial, and mounting. As one author on this topic has stated, "[r]egulated utilities are less risky than competitive industries, and therefore are supposed to produce a lower total return over time. But instead the opposite is happening."[15]

Mounting evidence indicates that awarded ROEs and actual utility earnings are too high, and that it is time to reevaluate the status quo and reduce utility ROEs to reflect actual risk and economic factors.

III. Current utility ROEs are higher than risk factors and economic trends support.

Rates of return for regulated utilities must achieve two competing goals: (1) they must allow the utility to attract enough capital to make the investments needed to provide reliable, continuous service, and (2) they must protect customers against monopoly pricing by ensuring that rates replicate what a competitive market would produce. A seminal scholar on utility regulation, James Bonbright, famously described the rate-setting process as follows:

> Regulation, it is said, is a substitute for competition. Hence its objective should be to compel a regulated enterprise, despite its possession of complete or partial monopoly, to charge rates approximating those which it would charge if free from regulation but subject to the market forces of competition. In short, regulation should be not only a substitute for competition, but a closely imitative substitute.[16]

If a utility's awarded ROE is too low relative to its risk profile, the utility will not be able to attract capital, which will result in underinvestment. If a utility's awarded ROE is too high, customers will pay more than necessary to incentivize appropriate investment, and the utility will be encouraged to pursue inefficient investments and to "gold plate" infrastructure to inflate its returns. The overall economy is also harmed in these conditions because capital is inefficiently diverted from other potential investments.

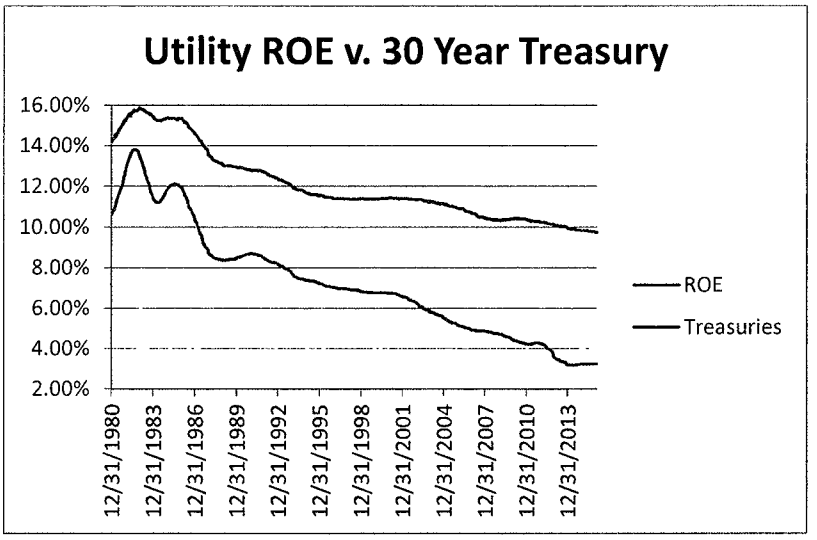
With this context, a historical comparison of the returns earned on "risk-free" investments (represented here by thirty-year Treasury yields) and the ROEs granted to regulated utilities strongly suggests that utility ROEs are not appropriately tracking either the risk level of utility investments or general economic trends. As shown in Figure 1, both utility ROEs and Treasuries have fallen since the early 1980s, but the gap has widened because utility ROEs have not declined nearly as quickly as Treasury yields—particularly over the last ten years:

[14] "Recent acquisition activity has been a little troubling, with above-average premiums being paid and, consequently, a more debt-financed profile to the transactions." Standard & Poors Ratings Service, "Industry Top Trends 2016," December 2015 at 22.

[15] Huntoon, S., "Nice Work If You Can Get It," Public Utilities Fortnightly (Aug. 2016).

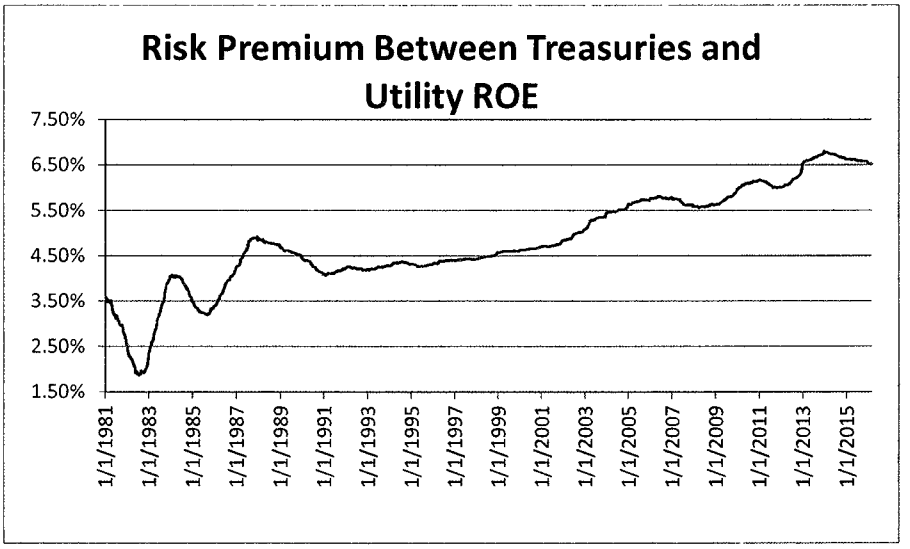
[16] Bonbright, J., Principles of Public Utility Rates at 3 (1966).

Figure 1: Comparison of Utility Allowed ROEs to 30-Year Treasury Yields[17]



This gap between utility ROEs and returns on "risk-free" investments represents a "risk premium." Risk premiums should compensate utility shareholders for the increased risk they bear relative to simply holding a theoretically risk-free asset—the 30-year Treasury bond in this case. As utility risk declines, the difference between utility ROEs and risk-free interest rates should become smaller—but the opposite is happening. The figure below focuses solely on the risk premium:

Figure 2: Comparison of Risk Premiums



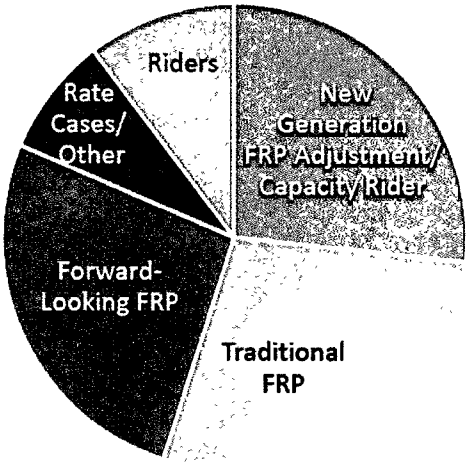
[17] Data is smoothed to be the 12-month moving average for both utility ROEs and Treasuries. Data is from SNL Financial and Bloomberg (see Direct Testimony of Robert Hevert in Docket 45414, Exhibit RBH-8, and Exhibit 1 to March 10, 2015 Moody's Sector-in-Depth Analysis for Electric Power).

As the chart above illustrates, the average risk premium over 1980-2016 was about 4.5%, or 450 basis points. Until the year 2000, risk premiums for utility investments had never exceeded 500 basis points. *Since that time, the gap has steadily increased and stands at approximately 650 basis points today.* If investing in utilities were riskier today than in the past, this result might be appropriate—but the opposite is true, as discussed below. Risk in the utility sector has declined over the last few decades, yet ROEs have not been reduced to reflect this lower risk, or even to track the general decline in expected yields from "risk-free" investments. This strongly suggests that the ROEs being granted to regulated utilities should be reevaluated.

IV. Texas: A Case Study

The utility business in Texas has become significantly less risky over the last two decades. From an investor's viewpoint, "risk" in the utility business includes anything that delays or prevents the investor from earning a return on invested capital. Among other factors, traditional utility risks include the potential that regulators may exclude an investment from rates (*e.g.*, for imprudence in the construction of generating plant), significant delay between the time an investment is made and the time when it is reflected in rates (also called "regulatory lag"),[18] and factors that influence utility revenues such as fluctuations in weather and load growth. Nationally, utilities have been successful in minimizing regulatory lag over the past decade through "alternative" rate mechanisms like future test years, formula rate plans, various riders to collect specific costs, and other forms of piecemeal (or "single-item") ratemaking. The chart below was created by a large multi-jurisdictional utility to show investors how little it relies on traditional rate cases compared to alternate ratemaking mechanisms to recover capital:

Figure 3: Illustrative Recovery of Incremental Utility Capital[19]



[18] Regulatory lag is a complex issue, as it can both hurt and help investors depending on the circumstances. If a utility is over-earning, regulatory lag benefits shareholders by increasing the time it takes to adjust rates downward. When a utility is under-earning, regulatory lag can delay setting rates that reflect the utility's actual revenue requirement.

[19] Entergy Presentation to Investors, February 26, 2016 at 13. http://files.shareholder.com/downloads/ETR/3875534036x0x877819/1D8DC9CC-7551-4A2F-8658-7DDB4147F73A/Handout_-_Investor_Meetings_Feb_26.pdf.

In Texas, there has been a profound trend of declining risk in the utility business over the last 15 years. Regulatory lag has been materially reduced (if not almost completely eliminated) for utilities—inside and outside of ERCOT—through the myriad of riders and cost-recovery factors that are now granted. Utilities can now increase rates without a full rate case to reflect: (1) transmission investment through Transmission Cost of Service (TCOS) and Transmission Cost Recovery Factor (TCRF) updates,[20] (2) distribution investment through Distribution Cost Recovery Factor (DCRF) updates,[21] (3) purchased power contracts through the Purchased Power Cost Recovery Factor (PCRF),[22] (4) changes in fuel costs through the Fuel Factor,[23] and (4) costs of complying with energy efficiency mandates through the energy efficiency cost recovery factor (EECRF).[24] Many of these updates can be filed at the utility's discretion, which means utilities can selectively file only when they believe a rate increase is supported. Some of these mechanisms fail to account for potential reductions in related cost drivers, such as deferred federal income taxes (a reduction to rate base) and load growth. Given that these mechanisms largely eliminate risk and can actually *increase* a utility's earned return, it is indisputable that utilities in Texas face much less regulatory lag or risk than they did in the 1980s or 1990s.

In ERCOT, generation service is now competitive and is no longer provided by rate-regulated utilities. Compared to generation investment, transmission and distribution investment carries a much lower risk of being excluded from rates because: (1) the investments are more granular and gradual, and (2) the utility has significantly less discretion in defining the type of technology and size of the investment. This is particularly true in ERCOT, given that ERCOT independently studies and pre-approves the need for new, large transmission facilities.[25] Outside of ERCOT, utilities still retain some risk and regulatory lag associated with generation investment, but the shorter lead time and lower capital cost for natural gas-fired generation (which has been the leading technology for new utility generation) reduces the impact of regulatory lag and imprudence risk. When combined with the myriad rate riders discussed above, it is hard to dispute that regulatory risk has declined significantly for both ERCOT and non-ERCOT utilities.

Yet, utility ROEs have not declined as ratemaking theory, market factors, and risk analyses would predict. Instead, the risk premiums reflected in utility ROEs have caused regulated utility stocks to closely track the Dow Jones Industrial Average (DJIA), which is comprised of enterprises that are traditionally much riskier than the utility sector. Utilities have historically been "low-beta" stocks, meaning that they are inherently less risky and, accordingly, have traditionally had lower equity returns than the DJIA. But in the recent past, utility stocks

[20] PUC Subst. R. 25.192 and 25.193 (ERCOT) and 25.239 (non-ERCOT).

[21] PUC Subst. R. 25.234 (both ERCOT and non-ERCOT).

[22] PUC Subst. R. 25.238 (non-ERCOT).

[23] PUC Subst. R. 25.235 (non-ERCOT)

[24] PUC Subst. R. 25.181 (both ERCOT and non-ERCOT).

[25] By rule, the PUCT gives "great weight" to ERCOT's need determination. *See* PUC Subst. R. 25.101(b)(3)(ii).

have actually had *higher* returns than the DJIA, strongly indicating that utility ROEs are far above appropriate risk premium levels.[26]

These high risk premiums for utilities allowing equity investor returns equivalent or superior than what is available in the markets generally, but for *a lower level or risk*. This runs completely counter to rationale economics or market theory. As one observer colorfully put it, ". . . if you want actionable [investment] intelligence up front, here it is: invest in regulated utilities."[27]

As discussed below, a large part of the problem appears to be the feedback loop created when ROEs in regulated utility rate cases are set based on the historical ROEs awarded to *other* utilities. This approach makes it difficult to implement a significant change when economic conditions or regulatory changes would merit significant reductions in ROEs. Regulators are understandably hesitant to reduce ROEs relative to what other jurisdictions are awarding for fear of deterring investment, and utilities have been successful in appealing to this conservativism to keep ROEs higher than they should be. However, the data shows that it is imperative to overcome this collective action problem and broadly reevaluate whether regulated ROEs are at appropriate levels.

V. Time to Reassess

The foregoing discussion begs the question: why have utilities continued to receive inflated ROEs in spite of all these compelling factors? The primary drivers behind the "stickiness" of utility ROEs appear to be: (1) the method by which regulated utility ROEs have traditionally been established (the "peer-group" method mentioned previously), and (2) strategic utility appeals to the risk aversion of regulators when it comes to investment and reliability.

Regulators are responsible for making sure customers receive reliable electricity service from their monopoly provider—an issue that is keenly important to the public and policymakers. Because of this, regulators are understandably sensitive to arguments that reducing utility ROEs will decrease investment below an acceptable level, harm a utility's credit profile, or compromise reliability. In recent years, utilities appear to have been particularly successful in persuading regulators that any reduction in ROEs will have unacceptable consequences, despite extensive countervailing data. For example, utilities will often describe an ROE reduction as "credit negative" to deter regulators from pursuing such a reduction. Of course, it is always "credit positive" to grant utilities higher ROEs and "credit negative" to lower ROEs; this says nothing about appropriate return levels. Rebalancing must occur at some point, and reducing ROEs will not harm investment incentives if the reductions appropriately reflect the overall economic climate or the specific risks faced by a utility. Similarly, in its 2016 Annual Rate Case Survey, Public Utilities Fortnightly described a recent case where Michigan regulators set aside extensive record evidence and the Administrative Law Judge's ROE recommendation based on the utility's unsubstantiated claim that investors would view Michigan as a "volatile" regulatory

[26] Some analyses show that utility stocks have outperformed industrial stocks since 2004. *See* Huntoon, S., "Nice Work If You Can Get It," Public Utilities Fortnightly (Aug. 2016).

[27] *See* Huntoon, S., "Nice Work If You Can Get It," Public Utilities Fortnightly (Aug. 2016); Hyman, L. and Tilles, W., "Don't Cry for Utility Shareholders, America," Public Utilities Fortnightly at 65 (Oct. 2016).

environment if its ROE were set at 10%.[28] *It cannot be the case that utility ROEs must only go up and never down, irrespective of industry risk or prevailing economic trends.* Again, this claim of "volatility" was a successful scare tactic that resulted in an excessive awarded ROE.

Structural features of the ratemaking process can also make it difficult to reduce utility earnings to reflect lower risk profiles or overall market trends. As one industry analyst recently noted, "Utility rates also tend to be downward sticky. It is easier for a utility to initiate and prosecute rate increase than for consumer advocates to initiate and prosecute rate decreases, with an imbalance in information being one obvious reason why."[29] Utilities have a natural incentive to file a rate case when they believe a rate increase will be approved, but not when rates would be reduced. Many of the largest regulated utilities in Texas have not had a rate case in many years. For example, Oncor, the state's single largest utility, has not had a rate case in more than five years and still has an awarded ROE of 10.25%.[30] ROEs are still being set in Texas in excess of 9.5%.[31]

Critically, as noted above, the "peer group" method of setting ROEs can create a feedback loop that perpetuates inflated ROEs. The most commonly accepted starting point for setting a utility's ROE is through a peer group analysis, where a survey is conducted of the ROEs for utility companies are claimed to be "peers" of the utility in question. This methodology effectively creates an echo chamber, where past regulatory decisions inform future ROEs and undue conservatism is reinforced—often in the face of contrary market data. As the data discussed above indicates, the ROEs that would be justified by objective market data appears to be in conflict with current awarded ROEs. This indicates that "peer group" ROE methodologies should be revisited to better account for changes in utility risk and other economic factors, rather than relying almost exclusively on the returns that have been awarded in the past.

In fairness, utilities offer a number of arguments to support the current risk premiums in awarded ROEs. For one, utilities argue that the reduction in risk-free ROE yields is an aberration, and utility ROEs should be set based on longer periods or on a lagging/historical basis. While this theory could justify a temporary increase in the observed risk premiums for utility ROEs over one or two years, the trend has far outlasted the limits of this justification. The US has overwhelmingly been a low-interest rate environment since late 2008, and there are a number of structural reasons why these relatively low interest rates may continue.[32,33] Yet, utility

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[28] Cross, P., "2016 Annual Rate Case Survey," Public Utilities Fortnightly (Nov. 2016).

[29] Huntoon, S., "Nice Work If You Can Get It," Public Utilities Fortnightly (Aug. 2016).

[30] *Application of Oncor Electric Delivery Company, LLC for Authority to Change Rates*, Docket No. 38929, Final Order at Finding of Fact No. 32 (Aug. 29, 2011).

[31] *See, e.g., Year-end 2015 PUC Earnings Reports for Electric Utilities*, Project No. 45636, Staff Memorandum (Oct. 21, 2016).

[32] Rates for treasury bonds increased immediately following the recent election, but this increase is small (only an increase of about 45-50 basis points) relative to the drop in interest rates over the last decade, which has been hundreds of basis points. These interest rate increases are from historical lows – current treasury yields are at the same level as the beginning of 2016. Some investors are already seeing the Treasuries market as oversold and are recommending bond purchases instead. *See* http://www.wsj.com/articles/government-bond-sell-off-continues-on-trumps-economic-plans-1479114743 *and* http://www.wsj.com/articles/the-trump-trade-is-getting-out-of-hand-buy-some-bonds-1479143922.

ROEs have not been reduced to appropriately track this reduction over the past *eight years*. Utilities also argue that high risk premiums are correlated with low Treasury rates;[34] however, this argument confuses causation with correlation. The historical trend of risk premiums rising as Treasury rates fall is simply a reflection of the "stickiness" of high utility returns relative to interest rates, for the reasons discussed previously, and is not some independent economic principle that regulators should pursue. Utility ROE witnesses will also claim that unique utility business risks or size/scale issues support higher ROEs for particular utilities, but the reality is that there are no persuasive arguments for sustaining high risk premiums when risk in the utility business in Texas has been significantly reduced by legislative and regulatory changes, or when other comparably risky enterprises are earning lower returns in general. Notably, Moody's Investor Service has even concluded that reducing utility ROEs would not harm the credit profile of utilities in general because of the lower business risk and the many credit-positive cost recovery mechanisms that have been adopted.[35] This perspective from an independent bond rating agency reinforces the other substantial data demonstrating that reducing utility ROEs will not harm their ability to attract investment, and is a strong signal that the status quo should be holistically reexamined.

VI. Conclusion

The ROEs awarded to and achieved by regulated utilities are higher than needed to attract appropriate levels of investment. Customers and the economy in general would be well-served by a comprehensive reexamination of utility ROEs in light of relevant risk factors and economic trends. This includes reexamining the application of "peer-group" based ROE analyses, as well critical analysis of utility claims regarding the allegedly adverse impacts of reducing ROEs. Certainly, utility requests for "alternative" or "streamlined" ratemaking should be met with a rigorous analysis of the impacts that existing and proposed mechanisms have in shifting risk from the utility to its customers, and those impacts should translate to lower ROEs. In the world of utility ROEs, "what goes up" should also come down when risk factors and overall economic circumstances overwhelmingly support a lower level of returns.

[33] Structural reasons for low rates include the aging of the US population, persistent excess savings in the rest of the world, and lower productivity growth. *See* http://voxeu.org/article/causes-and-consequences-persistently-low-interest-rates and https://www.allianz.com/v_1453369613000/media/economic_research/publications/working_papers/en/WPRealzinse.pdf.

[34] A utility ROE witness has made this argument in recent rate cases in Texas.

[35] Moody's Investor Service, Sector-in-Depth Analysis, March 2015.