BEFORE THE

LOUISIANA PUBLIC SERVICE COMMISSION

APPLICATION OF ENTERGY LOUISIANA, LLC FOR APPROVAL OF REGULATORY BLUEPRINT NECESSARY FOR COMPANY TO STRENGTHEN THE ELECTRIC GRID FOR STATE OF LOUISIANA	))))))	**DOCKET NO. U-_____**

DIRECT TESTIMONY

OF

TODD A. SHIPMAN, CFA

ON BEHALF OF

ENTERGY LOUISIANA LLC

AUGUST 2023

TABLE OF CONTENTS

EXHIBITS

I. INTRODUCTION

Q1. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Todd A. Shipman. My business address is 51 Woodsneck Rd., Orleans, MA 02653. I am a Principal with Utility Credit Consultancy LLC.

Q2. ON WHOSE BEHALF ARE YOU SUBMITTING THIS TESTIMONY?

A. I am testifying on behalf of Entergy Louisiana, LLC ("ELL" or the "Company"). ELL is a wholly owned electric utility subsidiary of Entergy Corporation ("Entergy").

Q3. WHAT IS YOUR EDUCATION AND BUSINESS EXPERIENCE?

A. I graduated from Texas Christian University with a Bachelor of Business Administration ("B.B.A.") degree with a major in economics. Upon receiving my B.B.A. from Texas Christian University, I earned my Juris Doctor ("J.D.") degree from Texas Tech University School of Law. Following my J.D., I was awarded the Chartered Financial Analyst ("C.F.A.") designation in 1989. Additionally, I have over 38 years of experience in the financial services and utility industries. I began my career in the financial industry as an analyst with a research firm that specialized in analyzing and reporting the investment implications of the actions and behavior of utility regulators. Subscribers to the research included investment bankers and analysts at major Wall Street firms, large institutional investors such as insurance companies and mutual funds, utilities, and regulators; I then joined an independent power producer. My primary responsibility was in regulatory affairs, where I coordinated participation in state regulatory proceedings.

I then spent 21 years at S&P Global Ratings ("S&P"), a major ratings agency that has been in business over 150 years and issues more than one million ratings on over $46 trillion of debt across all global capital markets. I performed credit surveillance of utilities and pipelines, midstream energy, and diversified energy companies. I was the primary analyst on over 150 different issuers during my tenure at S&P. In the final ten years, I was the Sector Specialist on the North American utilities team.

As the Sector Specialist on the North American utilities team, I was the sector lead analyst charged with ensuring ratings quality, assisting in the training and development of new analysts. During this time S&P comprehensively revised and updated its corporate ratings criteria, where I led the effort in creating the criteria used to establish ratings on all utilities across the globe, and I also led outreach efforts to investors and the regulatory community. As an analytical leader in corporate ratings and later infrastructure/project finance ratings, I was involved in many cross-sector ratings activities, for instance, I performed a lead analytical role in the development and application of global ratings criteria for hybrid capital securities, such as preferred stock.

After retiring from S&P, I became a management consultant specializing in advising utilities and other entities on credit and ratings issues, balance sheet management, and capital markets strategies. I was also an adjunct faculty member of Boston University's Questrom School of Business, where I taught advanced undergraduate courses in corporate finance and capital markets. My *Curriculum Vitae* is provided as Exhibit TAS-1.

Q4. HAVE YOU PREVIOUSLY SPONSORED TESTIMONY BEFORE REGULATORY AUTHORITIES?

A. Yes. I have submitted testimony to the Federal Energy Regulatory Commission, the Hawaii Public Utilities Commission, the Wisconsin Public Service Commission, the California Public Utilities Commission, the New York Public Service Commission, the Virginia State Corporation Commission, the Mississippi Public Service Commission, the Public Utility Commission of Texas, the New Mexico Public Regulation Commission, the Arizona Corporation Commission, the Washington Utilities and Transportation Commission, and the Louisiana Public Service Commission. A list of filings and testimonies since I began consulting is provided in Exhibit TAS-2.

Q5. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to apprise the Louisiana Public Service Commission ("LPSC" or the "Commission") of the importance of ELL's credit quality to customers and the need for constructive ratemaking decisions in the context of this proceeding and other proceedings as ELL continues its efforts to improve its transmission and distribution systems and prepares for economic development by making investments necessary to keep Louisiana attractive to businesses as described by Company witnesses Mr. Phillip May and Ms. Laura Beauchamp in their Direct Testimonies. Constructive ratemaking decisions would protect ELL's credit quality from deterioration and increasing capital costs due to the same. By way of background, I explain what credit ratings are, the importance of utility credit ratings in regulatory decision-making, and the analytical framework used for determining utility credit

ratings. I also provide information regarding the overall utility industry's financial outlook from a ratings perspective. I then summarize ELL's current credit ratings and discuss what the credit rating agencies monitoring ELL – Moody's Investor Service ("Moody's") and S&P Global Ratings – would view as a supportive decision in this proceeding.

Q6. WHY ARE YOU QUALIFIED TO OPINE ON THESE MATTERS?

A. I am qualified to opine on these matters because of the degree and scope of my involvement in rating utilities and other energy companies over many decades. For instance, as Sector Specialist at S&P, I chaired a vast majority of the rating committees conducted over more than a decade. The chairperson role is critical to achieving effective committee deliberations and assuring a fully vetted ratings opinion. Along with the primary analyst, the chairperson oversees the process of setting the ratings that emerge from each committee. The chairperson also brings a broader perspective to the committee to help them focus on how the proposed rating fits into the entire industry risk picture. In addition, I was the primary analyst on over 150 different issuers during my time at S&P. Between the two roles, my work had a direct and lasting effect on the ratings of every investor-owned utility in the United States ("U.S.") and Canada and, therefore, the rates of a large majority of electricity customers in North America.

The breadth of my ratings experience beyond the utility industry also informs my perspective when opining on ratings matters. Prior to specializing in utilities, I followed many types of energy companies along the energy value chain, from upstream (oil & gas producers) to midstream (natural gas and petroleum products, pipelines,

refiners) to downstream (natural gas distributors, energy marketers). My role in developing S&P's published ratings criteria exposed me to all corporate issuer ratings across all industries, as well as insurance and structured finance ratings. Furthermore, I participated in the major modification and rewriting of S&P's corporate ratings methodology in 2013 and wrote most of the utilities-related elements in the methodology.[1] For example, most U.S. utilities are assessed on financial risk using the "medial volatility" set of metric benchmarks.[2]

Q7. PLEASE SUMMARIZE YOUR CONCLUSIONS AND RECOMMENDATIONS.

A. My conclusions and recommendations are as follows:

- Credit ratings directly affect a utility's cost of capital supporting utility infrastructure investment and thereby directly affect customers' rates with higher credit ratings lowering a utility's cost of capital. Credit ratings agencies base their credit ratings on both qualitative factors to assess a utility's business risk and quantitative factors to assess a utility's financial risk. Regulatory environment is the most important element in the credit ratings analysis of a utility. Credit rating agencies examine regulatory environment in their business risk assessment. In that assessment, credit rating agencies consider the regulatory framework, the mechanics of regulation (e.g., how long does it take a regulator to adjust rates to reflect cost changes), and the consistency and transparency of regulation.

[1] S&P, *Criteria | Corporates | General: Corporate Methodology, Dec. 5, 2021 (originally published Nov. 19, 2013)*, S&P, *Criteria | Corporates | Utilities: Key Credit Factors for the Regulated Utilities Industry*, July 7, 2021 (*originally published Nov. 19, 2013*).

[2] *See*, S&P, *Criteria | Corporates | General: Corporate Methodology, Id.* at pp. 33-34.

Regulatory environment, however, also affects a utility's financial risk because rate setting affects the utility's financial outcomes.

- The present time is an especially vulnerable period for utility ratings due to the confluence of so many threats to the financial integrity of utilities beyond their control: rising inflation, rising interest rates, the need to invest heavily in the energy transition amid growing environmental, social, and governance risks being scrutinized, and the weakened cash flow position from which utilities are entering this heightened risk environment. Accordingly, customers are likely to experience benefits if regulators use their authority constructively to reduce risks on which they have significant influence and to put downward pressure on capital costs.
- Support from the Commission for ELL's efforts to improve its transmission and distribution infrastructure and to further economic development that will benefit Louisiana is important. The credit rating agencies will carefully review the decision in this proceeding, as well as other proceedings concerning large capital initiatives, to assess the decision's effect on ELL's business and financial risk.
- As ELL undertakes its extensive capital plans and initiatives, such support should include approval of a formula rate ("FRP") plan that minimizes regulatory lag and allows ELL a reasonable opportunity to earn its authorized return on equity ("ROE") without conditions, such as a rate change cap, which would lock-in regulatory lag. Similarly, a constructive return on equity finding demonstrates the regard that the Commission has toward the debt and equity investors furnishing the capital that ELL needs to improve its infrastructure and support economic development for the benefit of customers.

- If customer affordability is a concern, then ELL requests that the Commission provide direction to ELL on how to prioritize the needs of customers that ELL's various capital initiatives address so that the Commission's priorities are transparent to all stakeholders. In this way, ELL is able to maintain its financial condition by ensuring capital is being used to further the Commission's priorities and its costs will be recovered so that ELL is in position to access the capital markets on reasonable terms for the benefit of customers.

II. CREDIT RATINGS AND CAPITAL MARKETS

Q8. WHAT IS A CREDIT RATING, AND WHAT DISTINGUISHES IT FROM OTHER MEASURES OF THE FINANCIAL CONDITION OF A UTILITY?

A. In its most narrow sense, a credit rating summarizes credit risk, which is the ability and willingness of an issuer of fixed income securities to fulfill its contractual financial obligations in full and on time. Ratings address the relative probability that an issuer or an issue will experience default, *i.e.*, the failure to pay either the required periodic payment or the principal when it matures under the terms of the security.

More broadly, credit ratings reflect a more comprehensive view of financial health than other, more familiar financial measures, such as quarterly financial results, earnings per share, rate of return for a particular reporting period, and the market prices of a company's securities. Ratings are also an independent opinion offered by firms that have no financial stake in the outcome of their analyses. The *long-term* and *independent* nature of credit ratings makes them an ideal benchmark to assist utility regulators as they navigate the many decisions they must make as they balance

competing interests. As disinterested observers with a long-term mindset, rating agencies are well aligned with the perspectives of regulators.

Q9. WHAT DOES A CREDIT RATING AGENCY DO?

A. The primary role of a credit rating agency is to provide an assessment of the creditworthiness of a company or a financial instrument to facilitate access to fixed income capital markets at the most efficient cost. The agencies publish analyses of the issuers and issuances to communicate to the market with more detail the nuances of the current ratings, the analysis behind them, and the important factors driving the ratings and that could change ratings. Ratings are expressed in a series of letters, numbers, and/or symbols to encapsulate the relative creditworthiness of the entity or issue. The ratings scales of the two major rating agencies, S&P and Moody's, appear in Exhibit TAS-3.

As depicted in the ratings scale exhibit, ratings in the BBB/Baa category and above are considered "investment-grade" by market participants. Ratings below BBB-/Baa3 are known as "speculative-grade," or colloquially "junk," securities. Due to a significant number of prominent and active investors are precluded from holding speculative-grade issues, the difference between investment-grade and speculative-grade ratings is profound and is recognized as such by rating agencies and market participants.

Q10. ARE CREDIT RATINGS A USEFUL AND ACCURATE MEASURE OF A COMPANY'S RISK PROFILE AND FINANCIAL STRENGTH?

A. Yes. The risk of default is a good proxy for overall risk and an issuer's financial strength. The default experience of issuers validates the usefulness of credit ratings as a measure of risk. According to Moody's, from 1994 through 2022 the five-year average, volume-weighted corporate bond default rate generally increases from one rating category to the next lower category in the ratings scale, from a low of 0.0% for the Aaa category to 36.8% for the combined "Caa-C" categories.[3] In other words, the risk to investors increases as you go down each step in the rating scale. This track record is the main reason investors pay attention to credit ratings. They have proven to be a reliable and transparent measure of risk over a long period of time.

Q11. WHO USES CREDIT RATINGS?

A. Investors consult credit ratings when making investment decisions on choosing companies for investment and the price that they will demand to lend to or invest in a company. Ratings are valuable to investors because they are based on a consistent approach to assessing risk across time. Investors generally fall into two basic categories with distinct risk appetites. Fixed-income investors (*e.g.*, lenders or bondholders) extend capital to a company in exchange for a fixed return and the obligation to be repaid the original investment. Equity investors (*i.e.*, stockholders) receive only a residual return after all expenses are paid with no ability to demand a return of the

[3] *See,* Moody's Investor Service, *Sector-In-Depth, Default Trends – Global, Annual Default Study: Corporate Default Rate will Rise in 2023 and Peak in Early 2024*, (March 12, 2023), *Id.* at Ex. 46.

investment. Fixed-income investors use ratings as one, very important consideration when deciding whether, and at what cost, to lend capital to a utility. Both fixed-income and equity investors use the credit analyses performed by rating agencies to help them understand the overall risk of an issuer.

Q12. HOW DO CREDIT RATINGS AND ACTIONS AFFECT A UTILITY AND ITS CUSTOMERS?

A. Credit ratings directly affect the cost of capital needed for investment and, thereby, drive overall customer rates.[4] Fixed-income investors and other creditors use ratings to assist them in determining the price they will charge the utility for the use of their money. The total price is the combination of the interest rate of the instrument and its initial value in relation to the stated amount on the instrument. There is an inverse relationship between debt cost and ratings: the higher the rating, the lower the cost. Equity investors (i.e., stockholders) also use credit ratings as a risk guide to help them decide when and at what price they will offer their capital to a utility. The more risk they detect, the greater return they will require to compensate them for bearing that risk. The effect is not as direct or precisely quantifiable as it is with fixed-income instruments, but in my experience, equity investors often take notice of credit ratings and react to ratings upgrades and downgrades.

[4] Phillips, Charles F., Jr., *The Regulation of Public Utilities*, Arlington, Virginia: Public Utilities Reports, Inc. (1993), *Id.* at p. 250.

Q13. HOW IS A CREDIT RATING DETERMINED?

A. Credit ratings are established by a committee of analysts that specialize in the industry or industries of the rated entity. When warranted, other analysts with relevant expertise in other areas needed to accurately assess the risk of an issuer will participate in the committee. Ratings conform to common standards of credit risk across all issuers, industries, and markets by employing consistently applied ratings criteria. The committee first decides on the issuer credit rating, which corresponds to the fundamental credit quality of the entity before any legal and structural considerations that inform the ratings on specific issues. The committee then assigns ratings to the various rated debt or other securities in the capital structure. After the committee has made its decisions, they are communicated to the public by publishing and disseminating the credit opinion. The process then returns to the beginning as the issuer and its ratings are placed under constant surveillance.

Q14. WHAT KIND OF ANALYSES GO INTO A CREDIT RATING?

A. The analysis is a two-fold examination comprised of *quantitative* elements and *qualitative* elements. The quantitative side of the analysis develops financial ratios and other metrics to analyze the financial risk of the issuer. The qualitative side is the assessment of business risk, which is built up from the broad macro risks at the country and industry level. After the broad risk environment is determined, the committee establishes the issuer's individual business risk within that business and economic environment.

Business risk and financial risk are best understood as complementary sides of the total risk of an entity. For example, two utilities, "Utility A" and "Utility B," may have the same credit rating, but Utility A may have more business risk than Utility B. In such a situation, one would expect Utility A to have less financial risk to arrive at a particular rating. Because utilities are tightly regulated on financial matters that limit how much financial metrics can vary over time, I have found that it is more often that qualitative business risk drives ratings outcomes in the utility industry. This finding is supported by more than my experience. The utility credit analyses at Moody's and S&P are both designed to favor business risk slightly over financial risk considerations when arriving at a rating. Moody's is explicit in this bias, as the weighting in their scorecard for utilities is a 60%/40% split between business and financial factors.[5]

Q15. WHAT BUSINESS RISK CONSIDERATIONS CONSTITUTE THE QUALITATIVE SIDE OF CREDIT ANALYSIS?

A. For a utility, the main business risks are regulatory risk, operating risk, and cash flow diversity, but the first, regulatory risk, is *the* major factor in the analysis. Evaluating regulatory risk almost invariably circles back to cost recovery, notably full recovery of a utility's cost of capital, including the cost of both debt and equity, through a reasonable authorized return on rate base, that is, the utility's capital investment. The nature and pace of the process of recognizing an incurred cost as recoverable through rates is the paramount business risk factor for a utility credit analyst. The other elements

[5] Moody's, *Rating Methodology, Regulated Electric and Gas Utilities* (September 10, 2020), *Id.* at p. 4.

of regulatory risk are analyzed to discern the risk surrounding the ultimate factor of covering all costs sufficiently to earn a reasonable return.

Q16. HOW IS REGULATORY RISK ANALYZED?

A. In the Moody's methodology for utilities, regulatory risk constitutes over 80% of business risk, and for S&P, regulatory risk constitutes 60% of business risk.[6] Each focuses on the basic regulatory framework, including (1) the legal foundation for utility regulation, (2) the ratemaking policies and procedures that determine how well the utility is afforded the opportunity to earn a reasonable return with a reasonable cash component, and (3) the history of regulatory behavior by the governing bodies applying those laws, policies and procedures.[7]

The central question of utility regulation to a utility investor can be summed up in two words: cost recovery. Cost recovery includes the ability to recover the cost of capital (a large cost item for a utility) through a reasonable return on equity. Cost recovery, however, is not just how much money is recovered, but how that money is recovered. Relevant considerations include whether recovery is predictable and dependable, whether recovery mechanisms create extended lag, whether the regulator is taking timely action on rate requests, and whether all utilities are treated consistently

---

6 Moody's, *Rating Methodology*, *Id.* at p.4; S&P, *Corporate Methodology*, *Id.* at p. 22, *See,* Table 12.

7 This framework concept is ranked by two organizations within S&P. On the rating side, S&P considers Louisiana "highly supportive", the second-highest of five categories. S&P, *North American Utility Regulatory Jurisdictions Update: No Revised Assessments, but Notable Developments* (March 14, 2023), *Id.* at p. 2 Another research offering by S&P, called RRA, separately evaluates utility jurisdictions and places Louisiana in the center of its ranking of U.S. jurisdictions. S&P Global, RRA Regulatory Focus, *RRA State Regulatory Evaluations - Energy* (May 24, 2023), *Id.* at p. 6.

in terms of the regulatory process. The process of recognizing an incurred cost as recoverable through rates is the paramount business-risk factor.

Q17. AFTER THE OVERALL REGULATORY FRAMEWORK IS ANALYZED, HOW IS REGULATORY RISK DETERMINED?

A. Next, credit rating agencies examine the mechanics of regulation, particularly the rate-setting process and the details of how a utility's rate structure translates into the stability of its cash flows. In the past, rate cases took up much of the analysis, but now, the totality of a utility's tariff and rate structure are assessed to capture the effect on business risk of revenues generated outside base rates set in base rate cases. Formula rates, fuel clauses, and other varieties of rate mechanisms prevail across the utility industry and are the most common kind of rate mechanisms that stabilize earnings and cash flows to the benefit of the business risk profile. Creditors and therefore rating agencies attribute less risk to rate mechanisms that operate outside the rate case cycle and adjust rates automatically, in short time frames or flexible time frames to match revenues with costs, thereby minimizing regulatory lag.

Q18. WHAT DO CREDIT RATINGS AGENCIES DO WHEN THEY BECOME AWARE THAT A UTILITY IS COMMENCING A RATE CASE?

A. If the rate is more than a normal filing that is prompted by an unusual need or will have important policy implications going forward, such as a large addition to rate base or a request to initiate a multiyear rate plan, the rate case will attract heightened monitoring by a credit rating agency. A commentary or short ratings update may be published to

alert investors of the potential for the case to affect credit quality. Whether or not the case has a high profile, the analyst will make internal determination of the likely outcome and include it in the forecast model used for ratings surveillance and rating committees.

Q19. HOW DOES THE AUTHORIZED RETURN ON EQUITY AND CAPITAL STRUCTURE AFFECT A UTILITY'S CREDIT RATING?

A. These two elements of the revenue requirement calculation will, if supportive, give a utility a better opportunity to earn its actual cost of capital and provide more operating cash flow. Moreover, investors and rating agencies view these items in tandem as indicators of a regulator's attitude toward the utility's providers of capital. The authorized ROE is the most prominent feature of a rate case decision after the amount of the rate increase or decrease. The authorized ROE reveals the regard that the regulator has toward the investors that are furnishing the capital needed to maintain safe and reliable utility service and achieve other public policy goals. An in-depth analysis of the rate decision is required to fully understand the ratings implications, but the authorized return is widely used by investors to make preliminary judgments about the relative supportiveness of a regulatory jurisdiction. It is therefore an important signaling device to the investment community that affects the cost of capital, both equity and debt, and thus customer utility rates.

Q20. IS THE AUTHORIZED ROE THE ONLY IMPORTANT MEASURE OF PROFITABILITY THAT THE RATING AGENCIES USE TO ASSESS REGULATORY RISK?

A. No. A utility's ability to earn the authorized return is as important to credit analysis as the authorized ROE. In the Moody's ratings methodology on the subject of regulatory risk, a section called "Ability to Recover Costs and Earn Returns" addresses "the ability of a utility to recover its costs and earn a return over a period of time, including during differing market and economic conditions." [8] S&P has also highlighted this principle:

> We review authorized returns and capital structures in our analysis, but we focus mainly on actual earned returns. Examples abound of utilities with healthy authorized returns that have no meaningful expectation of earning those returns due to, for example, rate case lag (i.e., the relationship between approved rates and the age of the costs used to set those rates) or expense disallowances.[9]

The rating agencies emphasize the difference between authorized and earned returns because both must be analyzed to accurately assess regulatory risk. An authorized ROE that corresponds with the utility's actual cost of common equity capital is just the first step. Realizing that return in cash on a consistent basis is the real test of a regulatory environment. That is why rating agencies devote so much effort to understanding regulatory regimes and ratemaking procedures to determine how they strengthen or impede a utility's ability to manage risk.

[8] Moody's, *Rating Methodology*, *Id.* at p. 12.

[9] S&P, *Assessing U.S. Investor-Owned Utility Regulatory Environments* (August 10, 2016), *Id.* at p. 5.

Q21. ARE THE FRAMEWORK AND THE MECHANICS OF REGULATION THE ONLY CONSIDERATIONS THAT GO INTO DETERMINING REGULATORY RISK?

A. No. Rating agencies also look at the *consistency* and *transparency* exhibited in a regulatory jurisdiction's decisions.[10] Rating agencies rate many types and tenors of fixed income securities, but they regard debtholders who extend credit over long periods as their primary audience. They view their mandate as rating long-term debt as accurately as possible over the longest timeframe as possible. Utilities ultimately fund capital expenditures with long-dated maturities to match the long-lived assets they are supporting, and utility investors (debt and equity holders) expect ratings to be forward-looking and stable. Regulatory frameworks and practices that provide certainty and allow rating agencies to confidently project future cash flows and debt leverage will naturally be accorded a better business risk profile. Regulatory frameworks and practices that are in transition or being questioned and do not allow rating agencies to confidently project future cash flows and debt leverage will be accorded an inferior business risk profile. The predictability that comes from the *consistency* and *transparency* exhibited in a regulatory jurisdiction's decisions offers creditors the ability to assess risk accurately over most of the debt's term and improves the ability of the company to manage its business activities and capital program for the long-term benefit of its customers. Thus, consistency and transparency are hallmarks of a supportive regulatory jurisdiction.

[10] Moody's, *Rating Methodology, Regulated Electric and Gas Utilities* (September 10, 2020), *Id.* at p. 4; S&P, *Assessing U.S. Investor-Owned Utility Regulatory Environments* (May 18, 2015), *Id.* at p. 2.

Q22. DO REGULATORY ACTIONS ONLY AFFECT THE ANALYSIS OF BUSINESS RISK?

A. No. Regulatory actions affect both the business risk and financial risk sides of the credit rating equation I articulated above. The manner of establishing rates and the level and timing of cost recovery have a direct effect on a utility's ability to earn its authorized return on rate base and produce enough earnings and cash flow to support its credit metrics that measure financial risk. A regulatory jurisdiction's approval of a rate mechanism using a fully compensatory rate of return, including a capital structure that offers sufficient risk protection to bondholders and other creditors, is a feature of a credit-supportive regulatory environment that would factor in assessing business risk as well.

Q23. WHAT FINANCIAL CONSIDERATIONS UNDERLIE THE QUANTITATIVE SIDE OF CREDIT RATING ANALYSIS?

A. Credit rating analysis is distinguished by its emphasis on cash flow. Recognizing that debt is serviced with cash, not earnings, credit analysts strive to understand the cash flow dynamics of a company's financial results as much as or more than the accounting-derived earnings. The most recent example that highlighted this dichotomy is the effect of the Tax Cuts and Jobs Act of 2017 on utilities, which placed downward pressure on utility ratings because of its negative cash flow impact despite relatively neutral earnings implications. The other major element of financial risk to a credit analyst is the total amount of debt or debt-like obligations on the issuer's balance sheet

and from other activities. Items that the rating agency regards as debt-like are underfunded pension obligations, lease liabilities, long-term power purchase obligations, and deferred taxes.

Credit metrics are calculated for both historical periods and future forecasts falling into two basic categories: leverage and coverage ratios. Since ratings are forward-looking, the forecast is given more weight in the analysis. Leverage metrics assess the relative burden of debt and other fixed-income obligations compared to the financial responsibility being carried by shareholders. Leverage is measured against cash flow, for the most part, and represents a longer-term view of credit protection. Because of its long-term perspective, credit analysis tends to emphasize leverage metrics in the assessment of financial risk. Coverage metrics are something of the opposite, gauging the more immediate question of how cash flow compares to the near-term need to service the fixed-income obligations.

Q24. HOW IS CASH FLOW MEASURED IN LEVERAGE AND COVERAGE METRICS?

A. The primary measure that rating agencies use as a base for most cash flow metrics is cash flow from operating activities. Moody's calls its preferred cash flow measure "Cash Flow From Operations Before Changes in Working Capital" ("CFO pre-WC"), which removes the effects of transitory changes in working capital from CFO prep-WC to pinpoint the ongoing ability of an issuer to generate cash flow from its normal

operating activities.[11] S&P uses a similar measure, called "Funds-From-Operations," ("FFO"), although for consistency reasons they base their FFO calculation off of the more familiar income statement measure of "Earnings Before Interest, Taxes, Depreciation, and Amortization" ("EBITDA"). S&P then removes the actual cash paid for taxes and interest to arrive at a figure that aligns with operating cash flows stripped of the influence of working capital.[12]

Q25. WHAT CREDIT METRIC OR CREDIT METRICS DO CREDIT RATING AGENCIES TEND TO FOCUS ON?

A. FFO/Debt, or the Moody's equivalent is the preferred credit metric of utility credit analysts. The leverage measure is more stable and has a more long-term character than the coverage ratios that are given a secondary role in the financial analysis. The conventional leverage metric, debt-to-capitalization, is not regarded as a reliable measure of debt leverage for most corporate issuers, although Moody's does give it a minor weighting for utilities based on the importance of the capital structure in setting utility rates.

[11] Moody's, *Rating Methodology, Id.* at p. 20.

[12] S&P, *Criteria | Corporates | General: Corporate Methodology: Ratios and Adjustments* (October 21, 2021), *Id.* at p. 3.

Q26. WHICH SIDE OF THE CREDIT ANALYSIS EQUATION, BUSINESS, OR FINANCIAL RISK, IS THE MOST IMPACTFUL ON UTILITY CREDIT QUALITY?

A. As I noted above, the business risk side is a bit more weighted in the balance of the two when utilities are analyzed, but that really doesn't capture the true dynamic of utility credit quality. Due to the significant influence of regulation on the industry, which again, is the primary factor in assessing business risk, the actions of regulators materialize in the credit analysis in business and financial risks alike, as I mentioned above. This "feedback loop," wherein regulatory decisions act on business risk factors *and* directly affect a utility's ability to manage financial performance, tends to intensify the impact of regulation on ratings outcomes. The unique role that regulators play in determining utility credit quality cannot be stressed enough.

III. THE UTILITY INDUSTRY'S OUTLOOK

Q27. WHAT IS THE OUTLOOK FOR THE UTILITY INDUSTRY?

A. The broader credit ratings environment for utilities portends even more downward momentum for ratings. S&P first observed the credit quality of the utility industry deteriorating in 2020, with downgrades exceeding upgrades for the first time in a decade.[13] The downgrade-to-upgrade ratio for utilities stood at an astonishing 7-to-1 as of the middle of 2021.[14] I cannot recall a 7-to-1 downgrade ratio for utilities except

[13] S&P, *North American Regulated Utilities' Negative Outlook Could See Modest Improvement* (January 20, 2021), *Id.* at p. 1.

[14] S&P, *North American Corporate Credit Midyear Outlook 2021, Industry Top Trends Update, Regulated Utilities* (July 15, 2021), *Id.* at p. 1.

perhaps during the post-Enron credit environment. S&P recently reverted to a stable outlook for the industry after maintaining a negative outlook on the industry for the past three years.[15] Downgrades exceeded upgrades in each of those years, with a downgrade-to-upgrade ratio spanning that period stands at 3-to-1.[16] Moody's turned negative in its 2022 outlook, citing higher natural gas prices, inflation, and rising interest rates.[17] They had been concerned for a long time as the threat of rising electric and natural gas costs eroded their confidence in the overall regulatory environment[18] as inflation and rising interest rates captured their attention.[19] Although the formal S&P stance is now stable, it is decidedly negative-sounding: "Significant risks for the industry remain, including inflation, record levels of capital spending, and the practice of many companies to operate with minimal financial cushion from their downgrade thresholds."[20]

---

15 S&P, *The Outlook for North American Regulated Utilities Turns Stable* (May 18, 2023).

16 S&P, *Industry Top Trends: North America Regulated Utilities | The Industry's Outlook Remains Negative* (January 23, 2023), *Id.* at p. 4.

17 Moody's, *Regulated Electric and Gas Utilities-US: 2023 Outlook-Negative on Higher Natural Gas Prices, Inflation, and Rising Interest Rates* (November 10, 2022).

18 Moody's, *Regulated Electric and Gas Utilities-US: Persistent Elevated Electric and Gas Prices will Increase Social Risks* (February 14, 2022).

19 Moody's, *Regulated Electric and Gas Utilities-US: High Natural Gas Prices, Inflation and Rising Interest Rates Increase Social Risk* (June 13, 2022), *See also,* Moody's, *Regulated Electric and Gas Utilities-US: Inflation, High Natural Gas Prices Complicate Prospects for Supportive Rate Increases* (November 11, 2022).

20 S&P, *The Outlook for North American Regulated Utilities Turns Stable* (May 18, 2023), *Id.* at p. 1.

Q28. WHY DO YOU THINK THOSE MACROECONOMIC FACTORS ARE A CHALLENGE TO UTILITY CREDIT QUALITY?

A. Rising interest rates and inflation are threats because of the unique nature of the utility business model, which combines comprehensive rate regulation with an obligation to serve that compels high capital expenditure trends that are difficult to reverse. Additionally, while either higher interest costs or price levels can harm utility credit quality, together they can be quite harmful to a utility's ratings. Moreover, the industry is confronting these credit headwinds in a financial position that was weakened by earlier trends in thinner cash flow metrics stemming from tax reform[21] and pressure to maintain or increase capital commitments.[22]

Q29. WHY IS INFLATION PARTICULARLY HARMFUL TO REGULATED UTILITIES?

A. Regulatory lag. As damaging as regulatory lag is under mildly inflationary economic conditions, continued inflation at levels above the historical norm would be absolutely devastating to utility credit quality. Unregulated firms generally can pass higher costs contemporaneously to consumers as inflation builds. A utility can be faced with a situation where its costs significantly diverge from the levels that rates are based upon, leading to persistent and widening underearning and cash flow problems. If this coincides with a period of high capital spending, the inflationary pressures multiply as

---

21 Moody's, Rating Action: "*Moody's Changes Outlooks on 25 Regulated Utilities Primarily Impacted by Tax Reform,*" (January 19, 2018); *See also,* S&P, "*U.S. Tax Reform: for Utilities' Credit Quality, Challenges Abound,*" (January 24, 2018)

22 S&P, *Industry Top Trends 2022, Id.* at p. 1

spiraling input costs combine with ongoing regulatory lag to outpace the ability of the utility to accurately reflect the costs in rates.

Q30. AS YOU NOTED, IT'S BEEN DECADES SINCE INFLATION HAS BEEN AN ISSUE. HOW CAN YOU BE CONFIDENT IT WOULD AFFECT UTILITIES LIKE ELL?

A. I saw it myself. I started following the industry in the mid-1980's, reporting and analyzing regulatory decisions as the era of high inflation and double-digit interest rates was winding down. Capital expenditures were high due to a peak in the generation construction cycle that was exacerbated by inflationary pressures. In some cases, utilities were forced to "pancake" rate filings – that is, file a new case while the previous one was still in process – in a futile attempt to overcome regulatory lag.

The same thing is occurring now. The rate of inflation is increasing to unaccustomed levels. Interest rates are increasing in response. Utilities' capital expenditures are being driven higher as new technologies are incorporated into utilities' infrastructure and regulators' and customers' expectations of the utilization of electric service evolve. The modern rate mechanisms that prevail, however, tend to mitigate regulatory lag. For example, regulators generally authorize automatic adjustment clauses and formula rates to address changes in costs in an efficient and expeditious manner.

Q31. CAN YOU IDENTIFY ANY OTHER INDUSTRY OR RATINGS TRENDS THAT ARE RELEVANT TO THIS PROCEEDING?

A. Yes. In addition to the overall negative sentiment in the credit markets and capital markets, the Commission and parties should be aware of another emerging development that will further depress utility credit quality over time. The emphasis on environmental, social, governance ("ESG") risk in the credit analysis of utilities is evolving and will only increase and sharpen scrutiny in the years ahead. Rating agencies are increasingly pinpointing ESG risk factors in their analyses.[23]

Q32. WHAT HAS THE EVOLUTION IN ESG RISK ASSESSMENT MEANT TO UTILITIES AND UTILITY RATINGS?

A. The ESG framework for evaluating risk is, to my mind, a means for organizing the thinking around risks that have always been a part of assessing a utility's risk profile. The rating agencies are raising the importance of these factors by segregating and spotlighting them as investors become more attuned to the risks. Regulators can facilitate a utility's ability to manage ESG risks by recognizing their importance and factoring the materiality and structure of ESG risks into their deliberations.

[23] S&P, *How ESG Factors are Shaping North American Investor-Owned Utilities' Credit Quality* (April 28, 2021), *Id.* at p. 7.

Q33. IF THE RISKS PREEXISTED THE ESG PHENOMENON, WHY ARE THEY DEMANDING GREATER RATING AGENCY ATTENTION?

A. The ESG effort doesn't merely repackage the risks. It changes how investors and rating agencies view them and factor them into their analyses. For example, "E" risks have affected utility operations for decades, but the emphasis that ESG brings to environmental issues has accelerated a transformation to an almost exclusively carbon and climate change focus and away from traditional concerns about air and water quality.[24] Another example is "S" risks, which are less susceptible to quantification and have always posed a challenge to analysts. I found it interesting that Moody's employed the ESG framework as it tried to evaluate how the COVID-19 pandemic is a social risk to utilities.[25]

Q34. DO YOU HAVE ANOTHER EXAMPLE OF HOW THE ESG APPROACH IS AFFECTING THE RATING AGENCIES' ASSESSMENT OF UTILITY RISK?

A. Yes, S&P has organized its new "ESG credit indicator"[26] scores. In its compilation of credit indicators, utilities like ELL appear in the "Power Generator" Report Card,[27] not the "Regulated Utility Network" listing.[28] For as long as I can remember, S&P has

---

[24] Moody's, *Sector In-Depth, Regulated Electric Utilities, US: Intensifying Climate Hazards to Heighten Focus on Infrastructure Investments* (January 2020), *See also,* Moody's, *Sector In-Depth, Regulated Electric and Gas Utilities, US: Grid Hardening, Regulatory Support Key to Credit Quality as Climate Hazards Worsen* (March 2020).

[25] Moody's, *Sector Comment, Electric and Gas Utilities - US: Supporting Customers During Coronavirus Outbreak to have Positive ESG Implications* (April 23, 2020).

[26] S&P, *ESG Credit Indicator Definitions and Application* (October 13, 2021).

[27] S&P, *ESG Credit Indicator Report Card: Power Generators* (November 18, 2021).

[28] S&P, *ESG Credit Indicator Report Card: Regulated Utility Networks* (November 18, 2021).

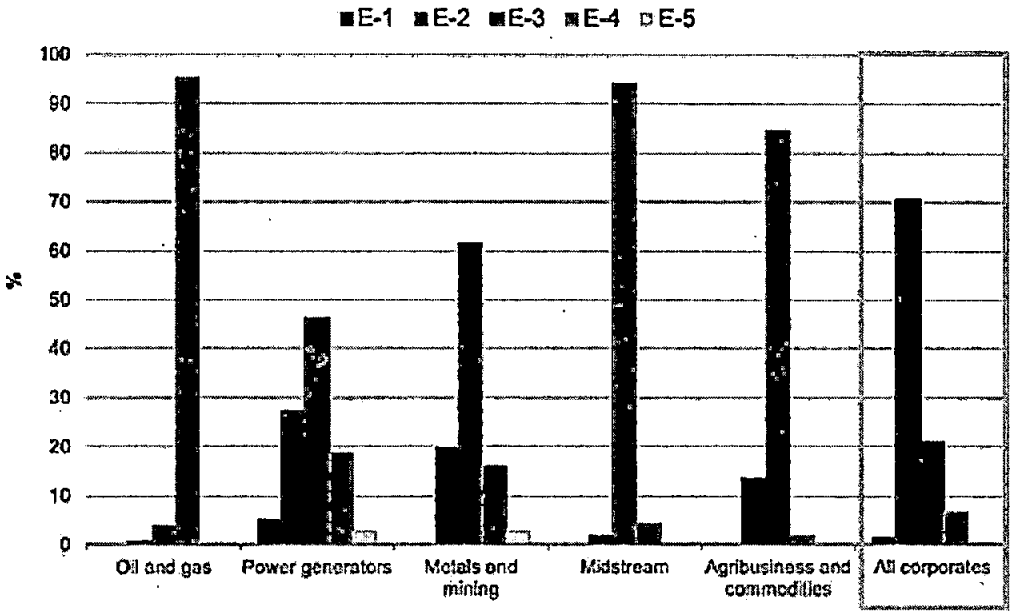
regarded the independent, unregulated power generation companies as significantly higher risk than integrated electric utilities like ELL. By lumping them together in the ESG analysis, S&P is sending a telling message about the environmental risk of generating electricity: the 'E' risk is pervasive regardless of whether a generating plant's cost is recovered through regulated rates or not.

As Figure 1 reveals, according to S&P the 'E' risk of power generators is exceeded only by the 'E' risk of the oil and gas sector. (The higher the number, the more risk.) Figure 1 provides a distribution of companies within each line of business based on 'E' risk. The companies having grades of 'E-1' have the least 'E' risk. 'E-1' means that environmental factors are, on a net basis, a positive consideration in S&P's credit rating analysis, affecting at least one analytical component. The companies having grades of 'E-5' have the most 'E' risk. 'E-5' means that environmental factors are, on a net basis, a very negative consideration in S&P's credit rating analysis, affecting several analytical components or one very severely. The majority of power generators, which includes regulated vertically integrated utilities like ELL, have grades of 'E-3' or worse, as shown below.[29] In contrast, the most common rating across all lines of business is 'E-2.'

[29] S&P, *ESG Credit Indicators: Key Takeaways for Corporates and Infrastructure* (March 30, 2022).

FIGURE 1

Corporate Sectors Most Exposed To Environmental Credit Factors (Top 5*)



*Ranked by aggregate percent of '3', '4', and '5' indicators. Source: S&P Global Ratings.

Q35. GIVEN THE STATE OF THE INDUSTRY AT THIS TIME, IS IT IMPORTANT FOR REGULATORS TO BE ATTUNED TO UTILITY CREDIT QUALITY?

A. Yes. Prudent regulators always consider credit quality when making decisions because of the pervasive influence ratings have on a utility's cost of service and therefore rates. The present time, however, is an especially vulnerable period for utility ratings due to the confluence of so many threats to the financial integrity of utilities that I have recounted in my testimony: rising inflation, rising interest rates, the need to invest heavily in the energy transition amid growing ESG risks, and the weakened cash flow

position from which utilities are entering this heightened risk environment. These risks are largely out of the control of utilities like ELL that have an obligation to serve customers. This fact argues for regulators to give even greater attention to lowering those risks that can be managed. Interest rates are an instructive example. It's clear that the long period of gradual interest rate declines that marked the last four decades of the fixed-income markets has ended. We are now faced with increasing capital costs just as investments in resiliency and clean energy are poised to grow. Accordingly, customers are likely to experience benefits if regulators use their authority constructively to reduce risks on which they have significant influence to put downward pressure on the costs utilities incur to access capital and thus on the rates that customers pay for electricity.

IV. THE COMPANY'S RATINGS AND OUTLOOK

Q36. WHAT ARE ELL'S CREDIT RATINGS?

A. Moody's last reviewed its 'Baa1' issuer rating on ELL in June 2023.[30] A copy of the press release is attached as Exhibit TAS-4. It changed the outlook on ELL to stable, reversing the negative outlook that was imposed in 2021 in the wake of the large restoration costs tied to Hurricane Ida. Moody's cited the Commission's leadership in approving full cost recovery of storm costs to validate its stable outlook.[31] Moody's followed the press release with its July 2023 credit report dated, a copy of which is

[30] Moody's, *Moody's Affirms Entergy's Baa2 Rating and Maintains Negative Outlook; Affirms Entergy Louisiana's Baa1 Rating and Changes Outlook to Stable* (June 12, 2023).

[31] *Id.* at 1.

attached as Exhibit TAS-5. S&P's issuer rating on the Company as of August 2022 is 'BBB+' with a stable outlook.[32] A copy of the report is attached as Exhibit TAS-6. S&P downgraded ELL last year out of the 'A' category precipitated by the same storm.[33] The fundamental opinions of the Company's creditworthiness are identical.

Q37. WHAT ARE THE MAIN DRIVERS OF MOODY'S OPINION OF ELL'S CREDIT QUALITY?

A. With regard to ELL, Moody's is focused on "1) environmental risks associated with its concentration in a storm prone service territory, where hurricanes have caused nearly $5.0 billion of damage at the utility in 2020 and 2021, 2) social risks around customer, political and regulatory relationships amid inflationary pressures and annual rate increases to recover capital investments, 3) weak financial metrics due to outstanding storm cost recovery proceedings."[34]

As for supportive factors, Moody's is focused on 1) Louisiana's constructive formula rate plan regulatory framework, which produces predictable earnings near the authorized ROE; 2) cash flow to debt metrics in the high teens range; and 3) the established record of providing storm cost recovery via securitization.[35]

---

32 S&P, *Entergy Louisiana, LLC* (August 25, 2022).

33 S&P, *Research Update: Entergy Louisiana LLC Downgraded to 'BBB+' From 'A-'on Weaker Financial Metrics Due to Storm Damage: Outlook Stable.* (September 2, 2021).

34 Moody's, *Credit Opinion, Entergy Louisiana, LLC* (July 19, 2023), *Id.* at p. 1.

35 *Ibid.*

Q38. IS MOODY'S FOCUSED ON THE OUTCOME OF THIS PROCEEDING?

A. Yes. Moody's identified this rate case as a possible credit challenge in its report: "Potential customer or regulatory pushback in the next general rate filing."[36]

Q39. WHAT ARE THE MAIN DRIVERS OF S&P'S OPINION OF ELL'S CREDIT QUALITY?

A. S&P also concentrates on ELL's storm risk and identifies "[e]xposure to severe hurricanes and storms in its service territory" as a key risk and explains that ELL "remains exposed to hurricanes as evidenced by the recent 2021 category 4 Hurricane Ida which was the most destructive hurricane in Louisiana since the 2005 Hurricane Katrina."[37] S&P also identifies as a key risk the "[l]ack of sufficient system hardening [that] limits the company's ability to protect against severe storms and increases its business risk relative to peers."[38] I think all stakeholders, including the rating agencies, recognize that it will take time to improve the resilience of the system to the point that risk is considered substantially reduced. As with any other risk management initiative, however, the process of identifying the risk, evaluating its impact, and initiating the plan to manage or mitigate the risk is crucial to resolving the problem. The rating agencies will take notice if the process and first steps are undertaken, even if the resolution will not occur for some time.

---

36 *Ibid.* at 2.

37 S&P, *Entergy Louisiana LLC* (August 25, 2022), *Id.* at p. 1.

38 *Ibid.*

Q40. IS STORM RISK A RISK THAT CAN BE EASILY MANAGED BY ELL?

A. No, its management is extremely complex. Moody's "recognizes that storm events create arduous circumstances for customers and state politicians, which have to be navigated" and that "storm cost securitization remains one of the best tools available to address abrupt, high cost events for utilities and their stakeholders."[39] Moody's further believes ELL must plan for these types of events because Moody's incorporates a $750 million storm event as a sensitivity in its financial risk evaluation.[40]

S&P believes that ELL's proposed Resilience Plan, which requires significant capital spending, as described by Company witness Mr. Ryan O'Malley, is an important consideration in ELL's credit ratings. S&P observed while commenting on ELL's business risk that storm cost securitization, although beneficial to both ELL and its customers, has limits when it comes to contributing to effective risk management. "While we view securitization as a good backstop for storm restoration costs, securitization takes time to receive the ultimate funds and takes up headroom in the customer bill, potentially increasing the risk of the company consistently managing regulatory risk."[41] S&P then identifies a better path to contain risk for the benefit of ratepayers:

> We believe that for ELL to reduce its credit risk exposure to severe storms, it is important for the company to have a more resilient infrastructure that withstands severe storms, reducing the rate of recovery of pass-through costs to customers. Parent, Entergy Corp, intends to spend about $4 billion in accelerated resiliency spending within the next five years and about $15 billion over the next ten years,

39 Moody's, *Credit Opinion, Entergy Louisiana, LLC* (July 19, 2023), *Id.* at p. 4.

40 *Ibid.*

41 S&P, *Entergy Louisiana LLC* (August 25, 2022), *Id.* at 4.

> which we assess as supportive of the company's long-term credit quality.[42]

As I stated in previous testimony before the Commission, I project that failure to support a robust Resilience Plan would, in conjunction with the challenging credit environment[43] and the risk associated with industrial load growth, pose a threat to ELL's ratings. Financial performance could weaken, but the larger threat is in the business risk profile, which is already "at the lower end of its business risk category."[44]

A further drop of ELL's business risk category from 'excellent' to 'strong' would be a damaging outcome for all stakeholders. Instead of the more common one-notch difference in the base rating indication, a move into a 'strong' business risk profile would push the S&P anchor score down two notches. That would bring everything much closer to the edge of being non-investment grade, or "junk," status on a stand-alone basis. Customers would bear higher capital costs in the future, all else being equal. Thus, storm risk is extremely complex to manage, and the Commission creating and maintaining a supportive regulatory environment is important.

Q41. WHY DO YOU CONSIDER GREATER EXPOSURE TO INDUSTRIAL SALES AS AN ADDED RISK TO THE ELL RATING?

A. Industrial customer concentration sets ELL apart from most electric utilities, as discussed by Mr. May and Company witness Ms. Elizabeth Ingram. ELL's industrials

---

42 *Ibid.*

43 *See,* Section III of Direct Testimony, *supra.*

44 *Ibid.*

constitute 48% of its customer mix, according to Moody's,[45] which contrasts with the average electric utility figure of about 16%.[46] Very few peers have that degree of industrial load exposure, and Entergy Corporation projects continued growth in this segment that will only exacerbate this risk factor.[47] Rating agencies and investors regard industrial sales as inherently more volatile (and therefore more risky) than residential and small commercial loads.[48] This is because, if one or more large industrial customers or sectors experience a downturn in its business segment, the effect on ELL's sales and revenues could be dramatic. The impact is not confined to the industrial customers, but can reverberate throughout the service areas as sales from other industrial and commercial customers (e.g., suppliers) and residential sales contract from the economic effect of the downturn. This customer concentration risk, which can also provide economic development benefits for the State of Louisiana and its residents if properly managed, must be countered with supportive regulatory actions by the Commission to maintain ELL's financial condition and avoid unnecessary changes in capital costs for customers.

[45] Moody's, Credit Opinion, *Id.* at p. 3, Based on its most recent FERC Form 1 data, ELL's industrial sales are 55% (volume) and 42% (revenue) of ELL's customer mix.

[46] Edison Electric Institute, *Industry Data,* EEI, *available at* https://www.eei.org/resources-and-media/industry-data.

[47] Rod West, *The Future is On, Analyst Day 2022,* Entergy Corporation (June 16, 2022), *available at* https://s201.q4cdn.com/714390239/files/doc_events/2022/06/2022-ANALYST-DAY-PRINT-CORRECTED-6-28-22.pdf, *Id.* at pp. 2 & 6.

[48] S&P, *Criteria | Corporates | Utilities: Key Credit Factors for the Regulated Utilities Industry* (July 7, 2021), ¶ 35.

Q42. WHERE DO S&P AND MOODY'S SCORE ELL ON ESG RISK FACTORS?

A. Moody's slots ELL into a 'moderately negative' category, denoted by a "Credit Impact Score" of "3" ("CIS-3") on a 1-to-5 scale. That composite ESG score obscures much of ELL's ESG exposure, though, due to a low-risk sub-score on governance. The social sub-score is "Moderately Negative," and the environmental sub-score is even worse at "Highly Negative." S&P groups and scores the risks with slightly different nomenclature, but the results are the same as Moody's. 'G' comes in at low-risk, 'S' as moderately negative (citing health and safety concerns), and 'E' as negative due to physical risks, waste and pollution. As I noted in Section III when reviewing the industry and credit quality outlook, ESG is steadily becoming more of a ratings driver for utilities. The negative stances on environmental and social risk factors are a warning sign to the Company and its stakeholders, including ratepayers, that managing these risks will be crucial to achieving ratings goals and minimizing the impact of the risk on customer bills in the future.

V. ELEMENTS OF A SUPPORTIVE DECISION

Q43. MR. O'MALLEY DESCRIBES REGULATORY LAG AS A POTENTIAL MAJOR OBSTACLE TO ELL MAINTAINING ITS FINANCIAL CONDITION. DO YOU IDENTIFY REGULATORY LAG AS AN ISSUE IN THIS CASE?

A. Yes. In his Direct Testimony, Mr. O'Malley has described ELL's significant capital spending plans and two areas not fully incorporated into ELL's plans: ELL's proposed Resilience Plan and additional generation and transmission capital spending. When a

utility has significant capital spending, rating agencies focus on regulatory lag and its effects on cash flow, which can be captured in a utility's FFO to Debt Ratio.

As I mentioned earlier, regulatory lag is commonly a major factor in evaluating regulatory risk, as it affects cash flow and the ability of a utility to earn its return. Regulatory lag can subsist even in situations that on the surface are designed to counteract it. The formula rate plan (FRP) that ELL operates under is one of those types of regulatory models intended to counteract regulatory lag.

Q44. WHAT IS REGULATORY LAG, AND WHY DOES IT INCREASE RISK?

A. Regulatory lag arises from a mismatch between a utility's rates and its costs. Addressing the issue of regulatory lag is the surest way to improve regulatory risk for a utility because it dampens cash-flow volatility and improves cash-flow generation. Regulatory lag is a matter of rate-setting mechanics: how rate cases are filed, conducted, and completed will determine whether rates are based on the most current and accurate set of cost inputs. More risk arises when regulatory lag lengthens because of the obvious effect it has on financial performance, but the impact is felt also on business risk due to the greater volatility that results from inconsistent treatment of costs and when they are recognized in rates.

Q45. HOW DO FORMULA RATES AFFECT REGULATORY LAG?

A. In theory, an FRP can alleviate regulatory lag. As Moody's explains:

> "...provisions and cost recovery mechanisms for operating costs, mechanisms that allow actual operating and/or capital expenditures to be trued-up periodically into rates without having to file a rate case (this