Article Title: ARCHIVE | Criteria | Corporates | Utilities: Keys to Success for U.S. Electricity Transmission and Distribution Companies Data: (EDITOR'S NOTE: —This criteria article is no longer current. It has been superseded by the article titled, "Key Credit Factors: Business And Financial Risks In The Investor-Owned Utilities Industry," published on Nov. 26, 2008.) Standard & Poor's Ratings Services views the business risk of U.S. electric transmission and distribution (T&D;) companies as generally low relative to their integrated peers. This is attributable to the protections afforded by regulation, relatively low operating risk, and the absence of meaningful competition. As a result, Standard & Poor's has assigned business profile scores to T&D; companies in the upper range of a 10-point scale (where '1' indicates lowest risk and '10' highest risk). Nearly all T&D; companies have business profile scores of between '1' and '3', but some fall below '3' and only a few will be given a '1'. Although most T&D; companies are likely to be rated as strong investment grade on a stand-alone basis, based on Standard & Poor's consolidated rating methodology, ratings of some T&D; companies are lower, and sometimes even below investment grade, due to the higher business risk of their parents (see chart for ratings distribution of U.S T&D; companies). In this article, Standard & Poor's discusses the keys to success for T&D; companies, drawing on examples from Pennsylvania, New York, New Jersey, Texas, Maine, and Massachusetts, the states where industry restructuring has advanced the most. T&D; Utility Business Models: All Are Not Equal As a result of specific restructuring arrangements that each company has reached with its state regulators, T&D; companies follow a variety of business models, which can meaningfully affect credit quality. In some states, utilities have followed a uniform restructuring method, while in others, such as New York, each company has a unique arrangement. From a credit perspective, measures that insulate the utility from exposure to supply volume and price risk are viewed positively. Standard & Poor's views delivery-only companies as lowest risk, while companies with default, or provider of last resort (POLR) obligations and rate caps, which also retain some volume and price risk, are viewed as having the highest risk in the T&D; sector. In their purest form, T&D; companies focus solely on electricity transmission and distribution, and assume no supply risk. The retail customers contract directly with a separate energy supply company and the distribution company acts solely as a conduit for electricity delivery. While there are no such "pure" T&D; companies in the U.S yet, as retail competition has been slow to develop, T&D; companies in Maine and Texas come close. In Maine, the Public Utilities Commission, and not the companies, is responsible for requesting proposals for energy supply. In Texas, independent retail electric providers, or those providers affiliated with incumbent T&D; utilities, purchase power for resale to customers. Load-shaping risk due to POLR obligations. Most of the U.S. T&D; companies are currently operating in a transitional period during which wholesale market and retail competition is expected to develop. During the transition period, T&D; companies typically assume the POLR obligation of procuring power on behalf of those customers who have not chosen an alternative supplier. How this POLR obligation is handled by the regulators can significantly affect a utility's credit quality. Furthermore, with industry restructuring efforts slowing down nationwide and retail competition developing at a snail's pace, Standard & Poor's expects that many of the T&D; utilities will continue to have POLR obligations for an extended period of time. T&D; utilities address load-shaping risks arising from their POLR obligations in a variety of ways. In New Jersey, the utilities, with regulatory approval, have mitigated volume and price risk associated with the POLR obligation because supply risk rests fully with the generators under full-requirements contracts. Risks associated with supply costs are also fully passed on to customers through annual joint auctions conducted by the utilities on behalf of their retail customers. However, in Massachusetts, T&D; utilities such as Massachusetts Electric Co. and Boston Edison Co. are marginally more exposed to supply risk because any power costs not covered in rates are deferred for recovery over 12 months, introducing a measure of regulatory lag. T&D; companies with a POLR obligation operating under a rate-cap arrangement without power cost adjustments are further exposed to supply risk. Some companies have mitigated the risks associated with the POLR obligation by entering into full-requirements contracts with affiliates (e.g., PPL Electric Utilities Corp.) or by assigning POLR obligations to unregulated affiliates (e.g., Metropolitan Edison Co. and Pennsylvania Electric Co. have assigned their POLR requirements to FirstEnergy Solutions). Usually, these contracts are through the term of the POLR obligation. Also, while this eliminates supply risk for the T&D; utility, such risk still remains with the consolidated parent entity (unless a third party provides the energy). Finally, a few

companies purchase blocks of power in term contracts and retain the load-shaping risk (e.g., New York State Electric & Gas Corp. (NYSEG)). Other risks arising from POLR obligations. As incumbents with POLR obligations, T&D; utilities also face some other noteworthy risks, such as retail competition risks and counterparty risks. Retail competition is important to companies that earn a POLR margin for energy delivered to customers and where an increase in customer shopping results in a loss of margin. As an example, Duquesne Light Co. in Pittsburgh earns a $5 per megawatt-hour POLR margin and loses about $1 million for every 2% increase in shopping levels. The company is the default energy supplier for about 72% of customers in its service territory. For Duquesne, shopping levels have been high in the industrial and large commercial users. As long as the POLR obligation remains the burden of incumbent utilities, the burden of finding a supplier rests with the utility. Even T&D; utilities with full-requirements contracts can face counterparty risks because they are obligated by law or by an agreement with the commission to procure power as the POLR provider. Thus, to protect credit quality, a distribution company must have adequate liquidity to support its POLR obligation during any deferral period as well as adequate assurance by the regulators that such deferred power costs will be recovered on a timely basis, preferably for a period not exceeding a year. Companies are responding to this issue in ways that can affect their credit quality. Duquesne Light has a full-requirements contact with Orion Midwest Holdings L.P., a unit of Reliant Energy Inc., through 2004. As part of its filing to extend the POLR plan through 2010, the company has proposed entering into fixed-purchase contracts with a number of counterparties for a portion of its requirement. While this mitigates its counterparty risk, it exposes the company to load-shaping risks. Moreover, the firm contracts could also result in some off-balance-sheet debt-like obligation for the company because they include purchased-power capacity payments. Although the nature of the business model exposes a T&D; utility to different types of risks, factors like quality of regulation can provide mitigants for the higher-risk T&D; business models. The remaining part of this article discusses additional key credit determinants. Regulatory Environment Regulation is the most important factor affecting T&D; companies' credit quality because it provides the means by which a utility can realize predictable and stable financial results. To be viewed positively, regulatory treatment should be timely, allow the utility to realize consistent financial performance over extended periods through long-term favorable policies, and provide for a high level of transparent decision-making. All else being equal, a supportive regulatory environment can provide the basis for a utility with a relatively weak financial profile to maintain an investment-grade rating (see table 1). Table 1 Regulatory Comparison SELECTED COMPANIES REQUESTED ROE (%) ROE APPROVED (%) DATE APPROVED JCP&L; 12 9.5 July 25, 2003 Metropolitan Edison 12.25 11.5 Dec. 15, 1994 Pennsylvania Electric N.A. 15.82 Nov. 25, 1986 Duquesne Light Co. N.A. 12.87 March 25, 1988 PPL & EU 13 11.5 Sept. 27, 1995 Niagara Mohawk N.A. 11.75 N.A. Central Hudson 11.5 10.3 Oct. 24, 2001 Consolidated Edison 12.75 11.1 April 6, 1995 NYSEG 11.5 10.5 Nov. 28, 2001 Rochester Gas & Electric 12.01 9.96 March 7, 2003 Massachusetts Electric 12 11 Sept. 29, 1995 Boston Edison 13 11.75 Oct. 30, 1992 Central Maine 12 10.55 Dec. 14, 1993 PSE&G; 11.6 9.75 July 9, 2003 Atlantic City Electric 13.7 12.5 July 3, 1991 Orange & Rockland Utilities 11.2 10.4 Aug. 12, 1996 N.A.--Not available. Revenue basis. Given that the rate-setting process often involves negotiation among the regulators, the companies, and various intervenors, a number of different mechanisms exist to set rates, depending on what the regulators are aiming to achieve. Examples include: Cost-of-service regulation. Prices are set to recover costs while allowing for a return on shareholder investment. The regulatory mandate is to balance the needs of customers and shareholders. T&D; rate caps. Rates remain fixed during a defined transition period (e.g., PPL Electric Utilities, Potomac Electric Power Co., Niagara Mohawk Power Corp., Massachusetts Electric, and Narragansett Electric Co.). This method presents greater business risk because unanticipated increases in capital expenditures or other costs cannot be recovered during the rate-cap period. However, in certain agreements, regulators have defined costs that can be recovered by creating regulatory assets, once such costs exceed a certain percentage annually. Such costs might include increased taxes, weather-related damages, and pension expenses. Regulation that allows for such carve-outs is viewed as more supportive of credit quality. Incentive-based regulation. Rates are fixed for a period of time and incorporate an annual inflation minus a productivity factor, or "CPI-X." While revenues and cost savings are somewhat predictable during this period, there may be significant exposure at the time when "X" is reset (examples are Central Maine Power Co. and

distribution companies in the U.K.). Allowed return on equity. In analyzing any rate case, Standard & Poor's explores whether prices are based on a rate of return consistent with the company's actual returns, and with those of peers with similar credit quality. Importantly, Standard & Poor's assesses whether the utility is being afforded a reasonable opportunity to actually earn the allowed ROE. To that end, the capital structure employed to arrive at the rate of return, the assets included under the rate base, and the cost structure of the test year, as well as all adjustments made to the company's filing, are reviewed. Regulatory decisions that incorporate the most recent information, employ measurable changes in rate setting, and which do not weaken cash flow (by deferring cost recovery into the future) provide companies with the best opportunity to earn the allowed return. Allowed rates of return for T&D; companies fall into a fairly wide range, but nevertheless provide reasonable returns in most states, especially when those returns are compared with those allowed for integrated utilities, which have generation risks. T&D; investor-owned utilities in the U.S also earn higher ROEs compared with counterparts in the U.K where the allowed return is only about 6% to 7%. In New Jersey, the Board of Public Utilities allows ROEs of 9.5% to 9.75% for T&D; companies, whereas the Texas commission allowed CenterPoint Energy Inc. an ROE of 11.25%. In Texas, regulators have generally allowed higher rates of return on T&D; assets to encourage investment to alleviate electricity transmission constraints on its isolated grid. Cost-of-service price adjustments. The responsiveness of the rate-setting process to changes in a utility's cost structure, or to discrepancies between allowed and actual revenues, can influence a company's financial profile. For example, in New York, where utilities like Central Hudson Gas & Electric Corp., Consolidated Edison Co. of New York Inc., and Niagara Mohawk acquire power on behalf of their customers, their ability to adjust prices rapidly throughout the year to capture changes in power costs is a significant business risk mitigant. Similarly, a T&D; company with rapid customer growth and accompanying large increases in capital costs could come under significant credit pressures if capital expenditures are not recognized quickly through increased rates, which would lead to lower returns and increased liquidity requirements. Operating environment. Regulation can also shape the operating environment for T&D; utilities, as demonstrated by the FERC's urging of utilities to form regional transmission organizations (RTO) in an effort to spur competition and effectively manage and improve reliability. An RTO administers a FERC-approved, open-access tariff across member transmission systems, schedules transmission service, manages congestion, and performs interregional coordination. Standard & Poor's views RTO membership for T&D; utilities as neither adding to nor detracting from credit quality, as long as all costs involved can be recovered on a fully reconciling basis. Companies have been hesitant to join an RTO in part because of the uncertainty of how the transmission system will evolve in the future and in part because of differences in the implementation. Consequently, only two RTOs have been formed in the U.S., Midwest Independent Transmission System Operator Inc. and the PJM Interconnection. From a credit perspective, the fact that high-voltage transmission tariffs are under the purview of the FERC, while distribution rates are governed by state commissions, can become material to credit quality. An example is PPL Electric Utilities, which has agreed to a T&D; rate cap in its restructuring settlement. Because of additional ancillary charges under the FERC's open-access transmission tariff in PJM, which were imposed after the rate cap was set, the utility cannot recover the additional charges in rates until the cap expires. Markets Service territory growth and wealth demographics. Assessing a T&D; utility's markets begins with an economic and demographic evaluation of its service territory, which can provide for significant differentiation from its peers (see table 2). This is because higher customer and load growth, both in a utility's franchise territory and in the state (or states) in which it operates, can lead to greater revenues and profitability. The strength and sustainability of long-term demand growth is examined from a macroeconomic perspective, including the identification of trends in investment, income, and employment. The evaluation of the markets is a balancing act, as T&D; companies serving the densely populated suburban areas of New Jersey and New York are viewed favorably because despite modest customer and load growth, customers have above-average income levels, indicating a customer base that can absorb potential rate increases. In contrast, Standard & Poor's views utilities that operate in areas such as upstate New York, including NYSEG and Niagara Mohawk, or Pennsylvania Electric in rural Pennsylvania, as having less robust markets, given declining population trends, departure of industry, and income levels that are below the national average, forcing the utilities to be ever more

cautious about cost increases. Table 2 Market Segment and Change Overview 2002 COMPANY RETAIL CUSTOMER GROWTH (%) TOTAL NUMBER OF CUSTOMERS (000S) RESIDENTAL (%) COMMERCIAL (%) INDUSTRIAL (%) OTHER (%) JCP&L; 1.59 1,034 48 40 12 0 Metropolitan Edison 1.43 506 47 34 19 1 Pennsylvania Electric 0.43 583 39 38 23 1 Duquesne Light Co. 0.09 586 37 43 18 2 PPL & EU 0.62 1,299 42 36 20 1 Niagara Mohawk (0.61) 1,523 46 36 16 1 Central Hudson 0.77 283 49 30 13 8 Consolidated Edison 0.54 3,118 43 55 1 0 NYSEG 0.94 811 53 15 9 9 RG&E; 0.85 355 45 30 18 7 Massachusetts Electric (0.63) 1,181 47 38 15 0 Boston Edison (0.33) 687 35 57 7 1 Central Maine 1.52 560 55 34 9 2 PSE&G; 1.00 2,048 35 50 13 1 Atlantic City Electric 1.31 512 50 40 8 1 Orange & Rockland 1.17 211 49 41 7 3 Source: U.S. Energy Information Administration. Customer mix. Standard & Poor's views heavy industrial concentration as generally less favorable than a high percentage of residential and commercial customers because industrial load tends to be more cyclical and volatile. Large industrial customers have a greater opportunity to self-generate and leave the distribution system, or to relocate their operations or to shut down during a severe economic downturn. However, relative to integrated utilities, T&D; utilities are less exposed to a high level of industrial customers because in many cases they will still provide delivery service even if the customer has chosen a different supplier. A large residential and commercial component provides a stable and more predictable revenue stream because these customers are the least likely turn to self-generation and are much less prone to depart a region during an economic downturn. In New Jersey, 85% to 88% of Jersey Central Power & Light Co.'s (JCP&L;) and PSE&G;'s customers are residential and commercial, which provide a relatively stable customer base. In contrast, Pennsylvania Electric has a 26% exposure to industrial users. Operations Wires operations. T&D; utilities typically have lower operating risk than integrated utilities. In reviewing a T&D; company, Standard & Poor's focuses on the cost, reliability, and quality of service, which local regulators also monitor. If utilities are not cost effective in meeting the prescribed service standards, stronger regulatory oversight and scrutiny are likely. A recent example occurred in the JCP&L; rate case hearing in which the New Jersey Board of Public Utilities (BPU) reduced the utility's allowed ROE to 9.5% as a result of poor reliability in certain New Jersey shore communities. In reviewing T&D; companies' operations, Standard & Poor's considers three broadly used industry benchmarks that characterize the frequency and duration of outages as well as complaints per residential customer. These are SAIFI (System Average Interruption Frequency Index), SAIDI (System Average Interruption Duration Frequency Index), and CAIDI (Customer Average Interruption Duration Frequency Index) (see table 3). Companies' performance under these standards typically varies only slightly from year to year, but significant variations can indicate lagging maintenance and may signal pending challenges with regulators as they are forced to respond to customer complaints about poor service. Table 3 Average Outages SELECTED COMPANIES SAIFI SAIDI CAIDI Avg. U.S. utility (2002) 1.10 218 90 JCP&L; (2003) 1.52 225 147 Metropolitan Edison (2003) 1.23 140 114 Pennsylvania Electric (2003) 1.60 239 149 Duquesne Light Co. (2003) 0.83 76 92 PPL & EU (2003) 0.89 107 121 Niagara Mohawk (2003) 0.88 61 120 Central Hudson (2003) 1.03 120 116 Massachusetts Electric (2003) 1.38 100 72 Boston Edison (2003) 0.96 67 70 Central Maine 2.10 N.A. 120 PSE&G; N.A. N.A. 85 Atlantic City Electric (2002) 1.07 106 113 SAIFI--System Average Interruption Frequency Index. SAIDI--System Average Interruption Duration Frequency Index. CAIDI--Customer Average Interruption Duration Frequency Index. N.A.-Not available. Capital expenditures. Capital expenditures for system improvements must be at manageable levels, yet sufficient to provide for constant renewal and refurbishment of the transmission and distribution system, as well as compliance with relevant reliability standards. The risk then becomes that utilities may be tempted to reduce maintenance capital expenditures to even below the minimum necessary levels, leading to lower reliability. Such issues surfaced in the summer of 2001 in Massachusetts, where the state's two largest utilities, Boston Edison and Massachusetts Electric, had frequent outages. In response to customer complaints and inquiries by the Department of Telecommunications and Energy, both companies increased their capital spending programs to address these reliability issues. Given that both companies operate under rate-cap structures, the expenditures were not automatically included in rate base, but are eligible for inclusion for recovery during the next rate proceeding. Operating under a rate cap forces utilities to become more efficient. Companies have used floating construction workers, installed automated meter reading equipment, and otherwise reduced costs to

offset, to some extent, the effect of capital expenditures not included in rate base. Counterparty risk. One of the most challenging aspects for T&D; businesses is the availability of reliable and creditworthy counterparties from which to procure power, and exposure to the replacement costs if a supplier does not perform under the contracts. This risk was highlighted in 2003 in Connecticut where, following its bankruptcy, NRG Energy Inc. moved to reject its power supply contract with Connecticut Light & Power Co.. In Maryland, Mirant Corp. and the Potomac Electric Power renegotiated the terms of their power supply agreements following Mirant's bankruptcy. While these contract disputes and renegotiations did not affect the operations of the utilities, they highlight the issue of counterparty risk and, often, the challenge of utilities to find a reliable electricity supplier. The key to how counterparty risk ultimately affects T&D; utilities is the regulatory treatment, including timeliness for pass-through of the increased costs to customers and rapid recovery of costs incurred to procure replacement power. Competitiveness While the benefits of competition and the creation of national power exchange systems are subjects of continuing debate, there is general agreement in the industry that, given the naturally high barriers to entry, T&D; systems should remain monopolies, not unlike the local telephone companies. As a result, within their own franchised territory, T&D; companies are highly unlikely to face competition from other T&D; companies. The lack of material competitive threats generally does not form a differentiating factor among T&D; companies because it affects all of them nearly equally. As a substitute for competition, regulators may force the T&D; utilities to "act" competitively through incentive ratemaking and benchmarking utilities' performance. However, competition does exist in the form of substitute energy sources and customers' ability to self-generate. There are instances where electricity competes with natural gas or fuel oil for certain segments of the market, such as space heating, water heating, and cooking. High electricity prices, whether due to inefficient T&D; service or high commodity costs, are cause for concern if customers have access to these alternate energy sources. Management and Strategy Despite T&D; companies' relatively low-risk business profiles, an assessment of management remains important for all companies. Considerations include management's strategy and its ability to execute that strategy, the utility's ownership structure within a larger family of companies, and the management of its financial profile. Strategies are a material determinant in differentiating utilities and in establishing a company's business profile. Standard & Poor's notes that in states that provided management teams a specific restructuring framework (e.g., mandatory divestiture of generation assets, capped rates, and the like), certain companies pursued long-term agreements to ensure revenue stability and to avoid frequent regulatory scrutiny while providing for the pass-through of commodity costs, all of which support credit quality. However, in states where restructuring terms were more loosely defined, or were left to management to design and implement, some management teams exhibited a larger appetite for risk. NYSEG, for instance, reached an agreement with the New York Public Service Commission allowing an ROE of up to 15.5% on its T&D; and POLR energy supply. The company chose to hedge about 90% of its projected requirement, with the balance subject to price risk. Moreover, the supplies procured are not load-following, but rather blocks of power, leaving NYSEG to manage the volume risk. While this latter strategy may provide considerably upside to equity holders, it can prove highly detrimental to bondholders' interests. T&D; utilities are frequently subsidiaries of larger diversified energy companies. Ownership by stronger or weaker parents materially affects the rated entity's credit quality. Based on its consolidation methodology, Standard & Poor's views many T&D; utilities as having the same level of default risk as their parent because of strategic linkages and the commingling of cash. JCP&L;, for instance, has the same rating as its parent, FirstEnergy Corp., and Niagara Mohawk has the same rating as its U.K.-based parent National Grid Transco PLC, which engages in T&D; operations as well. However, if structural, legal, or regulatory aspects insulate (or isolate) the adverse influence of the parent's riskier business pursuits from the T&D; utility, ratings could differ. PPL Electric Utilities has a higher rating than its parent PPL Corp. because structural enhancements (like restrictions on dividends) insulate the utility from the parent's higher-risk unregulated operations. Bringing It All Together Standard & Poor's analyzes a T&D; utility's business risk profile in conjunction with its financial risk profile. To complete the rating process, Standard & Poor's compares the specific utility's financial profile, both historical and forecast, against peers and against various ratio targets to determine a rating (see table 4). Importantly, consideration is given to the corporate structure and whether unregulated activities of the parent affect the utility's credit

profile. Table 4 Regulated T&D; Three-Year Avg. Financial Ratios SELECTED COMPANIES CORP. CREDIT RATING EBIT INTEREST COVERAGE (X) FFO INTEREST COVERAGE (X) FFO/AVG. TOTAL DEBT (%) NET CASH FLOW/CAPITAL EXPENDITURES (%) TOTAL DEBT/CAPITAL (%) Atlantic City Electric Co. BBB+/Negative/A-2 2.1 2.4 11.3 115.2 65.4 Central Maine Power Co. BBB+/Negative/A-2 4.3 4.4 39.2 212.4 31.8 Duquesne Light Co. BBB/Negative/A-2 2.8 3.9 20.0 145.1 62.8 Jersey Central Power & Light Co. BBB-/Stable/-- 4.2 3.2 19.6 69.8 34.1 Metropolitan Edison Co. BBB-/Stable/-- 3.4 3.1 19.1 134.9 39.0 PPL Electric Utilities Corp. A-/Stable/A-2 2.7 3.1 13.7 108.9 61.4 Pennsylvania Electric Co. BBB-/Stable/-- 3.0 2.8 12.6 65 36.4 Public Service Co. of New Mexico BBB/Stable/-- 3.0 3.8 20.4 75.9 57.7 New York State Electric & Gas Corp. BBB+/Negative/A-2 3.8 3.3 18.5 135.3 59.4 Central Hudson Gas & Electric A/Stable/-- 3.1 3.2 24.2 (41.8) 44.9 Consolidated Edison Inc A/Stable/A-1 3 2.9 14.7 54.1 55.9 Niagara Mohawk A/Stable/-- 1.1 2.6 12.9 226.7 63.3 Rochester Gas & Electric Corp. BBB+/Negative/-- 2.8 3.6 20.7 92.3 53.0 Orange & Rockland Utilities A/Stable/A-1 3 3.3 16.7 78.5 55.6 Standard & Poor's focuses on four primary challenges that face T&D; utilities that now operate in a restructured environment: Price volatility for companies with POLR obligations and the recovery of costs incurred to meet load growth. Extreme price volatility may cause regulatory commissions to second-guess utilities' procurement practices and disallow full recovery. The availability of creditworthy third-party suppliers, which could lead to higher rates for default service supplies. The relatively high capital costs associated with adding new T&D; customers relative to the embedded costs of serving existing customers. If regulators do not allow timely recovery, or are under political pressure to keep rates low, credit quality of T&D; utilities would come under pressure. This is especially true for companies under price caps or predetermined rate increases. Lower authorized ROEs in light of the historically low interest-rate environment.