Why a Forward Capacity Market Won’t Solve Texas’ Resource Adequacy Problem: The Case of Energy Future Holdings

A Report Prepared for
Public Citizen of Texas

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Summary

The State of Texas is considering a range of options to improve flow and amount of electricity available to residents and businesses. One option is to provide electricity producer’s with increased revenues to offset low energy prices in the state. The technical term for these additional revenues is “capacity payments”. In Texas, the experience of one company Energy Future Holdings (EFH), the parent of a number of power generation, transmission and distribution entities serving 1.8 million customers offers a cautionary warning. The company’s current financial condition and business model suggest that additional revenue alone will not significantly improve company finances, induce investment in viable energy alternatives, and may have counterproductive outcomes.

As the facts in the report make clear, since EFH took ownership and control of TXU in 2007, it has compiled a poor record of financial and energy leadership. Its current financial position and management direction suggest it would not use additional revenues to make capital improvements at its plants or invest in additional generating units. Instead, Texas policy stakeholders are all but certain to see those revenues applied as part of EFH’s continuing liability and debt management program. This program, which drives company decisions, is designed almost exclusively to manage the extraordinary debt incurred as part of the 2007 purchase price of the company from TXU. EFH’s current financial structure is unsustainable and will require some form of debt restructuring if any of the EFH family is to emerge as a going concern.

In 2007, the company incurred over $35 billion in debt MOSTLY to buy out TXU. EFH dealmakers assumed natural gas prices would rise, causing ERCOT power prices to rise and EFH revenues in turn to increase. Instead, natural gas prices have declined. All indications are they will remain low. The company added two new coal plants in 2009-2010, despite the fact that across the nation over 150 new coal plants were canceled by utilities, public power and federal financing authorities. Since 2008, EFH’s revenues have dropped dramatically.
Going forward, EFH is managing a $30 billion plus liability. To do this it must pay annual interest rates on some of its debt upward of 12%\(^1\) at a time of record low interest rates in the country. EFH has the lowest credit rating of any large utility in the country. The stock of the company is worthless and the company continues to lose asset value. Although the company has, through the political process, delayed compliance with pollution control investments, it has acknowledged no financial means available to handle day-to-day financial operations of the company.\(^2\)

- Since 2005, the company has lost 500,000 customers\(^3\);
- Since 2007, EFH stock has dropped $14.5 billion in value\(^4\);
- Since 2008, company revenues have plummeted. The company earned $11 billion\(^5\) in annual revenue in 2008, by 2012 it earned $5.6 billion\(^6\), a loss of $5.4 billion in five years;
- Since 2007, the company has cumulative losses of $17.76 billion\(^7\);
- Since 2007, the company's total assets have declined in value from $64.8 billion to $44.7 billion.\(^8\) This has occurred even after adding 2,200 MW of new coal fired power generation in 2009-2010.
- Since 2007, the company has gone from paying $830 million in annual interest payments\(^9\) to a peak of $4.3 billion in 2011\(^10\). Despite a lower 2012 interest payment the company paid 62 cents of every revenue dollar collected for interest.\(^11\) The industry average nationwide is 6.4 cents of every dollar.

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\(^{3}\) The residential customer count in 2005 was 2.3 million, by 2011 the residential customer count declined to 1.8 million. See, respectively: TXU Corporation, *2005 Form 10K*, March 6, 2006, p. A-6 and EFH 2011-10K, p. 78.

\(^{4}\) The EFH Common Stock Equity value is listed as a positive $6.7 billion in 2007 and drops to a negative $7.8 billion in 2011, EFH 2011-10K, p. 51.

\(^{5}\) In 2008, the first full year of EFH ownership and control, the company disclosed $11 billion in revenue. By 2011 the company reported earnings of $4 billion, EFH 2011-10K, p. 50.

\(^{6}\) EFH, *Form 8K* January 22, 2013, p. 3. (EFH 8K-1013)

\(^{7}\) EFH 2011-10K, p. 50.

\(^{8}\) EFH 2011-10K, p. 51.

\(^{9}\) EFH, *Form 10K-2008*, p. 62.

\(^{10}\) EFH 2011-10K, p. 108.

\(^{11}\) EFH 8K-2013 discloses 2012 annual revenues of $5.6 billion and $3.5 billion in interest payments, p 3 and 4 respectively.
In early 2011, two large investors and principal board members declared that the EFH had lost between 60% and 80% of its value. Since then the investment value has decline further.

EFH’s past performance and current alignment of interests of its board of directors strongly suggest that additional revenue from capacity payments will not be used to support constructive growth alternatives for the Texas electricity market.

**Background**

In February 2007, TXU Corporation announced that it agreed to an acquisition by a consortium of private equity investors in a highly leveraged transaction. Large investment firms Kohlberg, Kravis and Roberts (KKR), Goldman Sachs, Lehman Brothers, Citigroup, Morgan Stanley and Texas Pacific Group (TPG), Inc. supported the deal with substantial capital commitments. These private equity firms took positions in the company and on the board based on an assumption of rapid, long-term increases in natural gas prices. Prior to the buyout, TXU had been an integrated utility providing generation, distribution and transmission services in Texas. The new corporate rubric Energy Future Holdings (EFH), the parent entity reorganized the TXU structure. The assets of the new company at the time of acquisition were valued at $46.3 billion. Analysts at the time were skeptical of the equity group’s projections and the use of private equity as a vehicle to manage a utility. These warnings did not stop the transaction from moving forward. During 2011 investors have taken some steps to secure their interests as the investment...

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12 Although Berkshire Hathaway was not named in the original public releases it apparently made a substantial commitment: Pierre Paulden, *Energy Futures Bondholders Said to Oppose $6 Billion Debt Swap*, NY Post, October 9, 2009.

13 The new arrangement anticipated three benefits: 1) lower prices through September 2008; 2) improved environmental policies – notably less coal fired generation and an increased commitment to exploring renewable energy, and 3) the creation of a Sustainable Energy Committee (TXU Press Release, February 26, 2007).

14 Moody’s (2007), *Proposed Acquisition of TXU by a Consortium of Private Equity Investors Raises Potential for a Multi-Notch Ratings Downgrade*, Moody’s Special Comment, March 2007, p.3. For a complete discussion of these issues and a critique of the original valuation of the company and the coal plants see: Tom Sanzillo, TR Rose Associates, *The Case to Retire Big Brown, Monticello and Martin Lake Coal Fired Coal Plants*, March 2011.
has deteriorated.\textsuperscript{15} Regardless, it is likely that some form of restructuring will be necessary.\textsuperscript{16, 17}

EFH organized under two subsidiaries and a number of intermediate and affiliated entities. The first is Oncor Electric Delivery Company (ONCOR), a transmission and distribution utility serving the greater Dallas region and regulated by the PUCT. Energy Future Intermediate Holding (EFIH) is an intermediate holding company of EFH’s attached to the ONCOR entity. To protect Oncor and its assets from any adverse financial impacts from the actions of the EFH corporate parent a “ring-fence” was established to shield Oncor’s assets.\textsuperscript{18}

The second subsidiary is Texas Competitive Electric Holdings (TCEH), a wholly owned intermediate holding subsidiary that owned at the time, 18 GW of generation assets, all in Texas, including 8 GW’s of nuclear and coal plants.\textsuperscript{19} Its newly formed company, Luminant, operates the plants. TCEH also includes the largest Texas based retail electric provider, TXU Energy, which at the time provided electricity services to approximately 2 million customers.

The deal also included TXU’s lignite reserves, which provide mine mouth fuel access for several plants including Big Brown, Monticello and Martin Lake. The plants burn a combination of lignite and Powder River Basin coal from Wyoming.

The generation largely serves the North section of the Electric Reliability Council of Texas (ERCOT). The North section comprises 38% of the ERCOT market, the largest segment in the region. Generation from the region produces 45% of the electricity in ERCOT, which makes North Texas a net energy exporter. Within the

\begin{itemize}
\item \textsuperscript{15} Matt Wirz and Gregory Zukerman, \textit{Texas-Size Woe for KKR-TPG}, Wall Street Journal, March 8, 2011.
\item \textsuperscript{16} See, for example, the recent discussion in: Moody’s Investor Service, \textit{Rising Rating Pressure for Investment Grade Issuers as Spec-Grade Restructuring Move Center Stage}, Special Comment, December 9, 2012. (Moody’s 2012). See also: Machalina Iacob, Paunie Samroth, Jon Berk and Andrew Ragsly, \textit{Energy Future Holdings acknowledges the inevitable, taps Kirkland and Ellis to kick Start workout prep}, Financial Times, February 7, 2013.
\item \textsuperscript{17} EFH 2011-10K, p 31
\item \textsuperscript{18} For a description of the ring-fence see” EFH, Form 8-K, December 5, 2012, p. 130.
\item \textsuperscript{19} EFH’s 2007 10K filing lists its combined coal assets at 5,837 MW including Big Brown, Monticello, Martin Lake and one unit at the Sandow Plant.
\end{itemize}
Northern section, as in the ERCOT region as a whole, natural gas is the principal fuel source, although coal plays a significant role.\(^\text{20}\)

The TXU/EFH transaction contained certain "new build" coal generation projects that would add capacity and new revenues to the generation fleet. Additional Sandow and Oak Grove units representing approximately 2,200 MWs of new capacity were ‘in-the-pipeline’ as part of the package. The Sandow and Oak Grove plants opened for operation in the fourth quarter of 2009 and second quarter of 2010 and have been in operation since then. According to company filings the combined new capacity cost $4.8 billion.\(^\text{21}\) At the time of the 2007 transaction environmentalists and investors compromised and cutback an earlier plan that called for a much larger investment in new coal plant generation.

The 2007 transaction occurred at a time when air quality in the Dallas Fort/Worth area deteriorated to a level where it had become one of the nation’s pollution hot spots. Three of EFH/Luminant’s largest coal fired power plants serve the area. These merchant coal plants are among the leading contributors to the combination of emissions that have caused the problems in the area.\(^\text{22}\) The plants comprise 5,280 MW of coal fired generation capacity (Big Brown: 1,150 MW, Martin Lake 2,250 MW and Monticello 1,880 MW).\(^\text{23}\)

**The Performance of Energy Futures Holding Since 2007**

Since 2007 the company has been preoccupied with the management of the extraordinary debt liability it must cope with to avoid bankruptcy. Debt management is the company’s principal function since 2007 and will continue to be for the foreseeable future.

The company’s actions related to energy and utility management are noteworthy for their failure and shortsightedness --- most notably, the significant


\(^{22}\) M.J. Bradley and Analysis Group, Ensuring A Clean, Modern Electric Generation Fleet while maintaining electric Reliability, August 2010, p. 17.

\(^{23}\) Ibid.
overestimation of prices in the natural gas markets. The TXU/EFH transaction occurred just as the shale gas boom locked in long-term low natural gas prices.

**Debt and Debt Management**

In 2012 EFH spent 62% of company revenue dollars to pay for interest and “interest related” payments on its stated $35.3 billion of long-term debt (see Figure 1). The Edison Electric Institute compiles an industry annual financial performance report that gathers the financial disclosures from the largest, privately owned utilities in the country into an aggregate filing and analyzes the data. The average interest/revenue ratio of all private utilities in the nation is 6.4%.

![Figure 1. EFH Annual Revenue and Interest ($ billions)](image)

EFH's formal filings to SEC describe the company's program to manage its debt burden.

> *As of December 31, 2011, we had $31.4 billion principal amount of debt outstanding, including short-term borrowings and $704 million pushed down from EFH Corp. We and EFH Corp. have implemented a liability management program designed to reduce debt and extend debt maturities through debt exchanges,*

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24 EFH 2011 – 10K, p. 51. This is up from $34.2 billion in 2010.

repurchases and extensions. Amendments to the TCEH Senior Secured Facilities completed in April 2011 resulted in the extension of $16.4 billion in loan maturities under the TCEH Term Loan Facilities and the TCEH Letter of Credit Facility from October 2014 to October 2017 and $1.4 billion of commitments under the TCEH Revolving Credit Facility from October 2013 to October 2016.26

EFH’s liability management program resulted in the company using 62% of every revenue dollar in 2012 for interest and interest related payments. This financial practice is likely to continue to consume significant resources for the foreseeable future.

Our substantial leverage, resulting in large part from debt incurred to finance the Merger, and the covenants contained in our debt agreements require significant cash flows to be dedicated to interest and principal payments and could adversely affect our ability to raise additional capital to fund operations, limit our ability to react to changes in the economy, our industry (including environmental regulations) or our business. Principal amounts of short-term borrowings and long-term debt, including amounts due currently, totaled $31.4 billion as of December 31, 2011, and cash interest payments in 2011 totaled $2.5 billion.

Significant amounts of our long-term debt mature in the next few years, including approximate principal amounts of $110 million in 2012-2013, $3.9 billion in 2014 and $3.7 billion in 2015. A substantial amount of our debt is comprised of debt incurred under the TCEH Senior Secured Facilities. In April 2011, we secured an extension of the maturity date of approximately $16.4 billion principle amount of debt under these facilities to 2017. Notwithstanding the extension, the maturity could be reset to an earlier date under a “springing maturity” provision if, as of a defined date, certain amounts of TCEH unsecured debt maturing prior to 2017 are not refinanced and TCEH’s debt to Adjusted EBITDA ratio exceeds 6.00 to 1.00.27

Due to the significant debt incurred from the merger,28 the company is ill-prepared to handle the normal operating functions of a utility – raising capital for operations, funding CAPEX (capital expenditures), contending with cyclical changes in the economy, managing regulatory change and short term borrowing programs.

26 EFCH 2011-10K, p. 42.
27 EFCH 2011-10K, p. 45.
28 To gain a perspective on the magnitude of debt under consideration in this matter, EEI’s 2011 Annual Financial Performance report contains the following statement (regarding total nationwide long term utility debt nationwide): “Total long-term debt (current and non-current) has risen by $92.8 billion, or 29%, since year-end 2006, driven higher mostly by the need to finance sharply rising capital spending. However, approximately $27 billion of the increase resulted from the buyout of TXU (renamed Energy Future Holdings) buyout consortium of private equity investors in 2007.” (EEI-2011, p.13).
EFH has the lowest credit rating of any of the fifty seven shareholder owned utilities monitored by the Edison Electric Institute on their website. Standard and Poor’s rates the company at ‘CCC’. Moody’s rates the company at Caa3. Fitch has recently downgraded the company to “RD” or Restricted Default. All of these ratings reflect rating agency opinion of a company poised to file for bankruptcy, to default on its obligations or engage in some form of restructuring.

Recently EFH issued $1.15 billion in unsecured senior notes to pay off existing obligations. The interest rates on these new financial instruments are 11.25/12.25%. Some analysts see the move as a signal that the EFH family is preparing for debt restructuring. Given the nature of the board and corporate relations, size, complexity and level of the bond financings, state law provisions governing utility generation, pace of the economy and the more fundamental weaknesses in the coal-fired generation model employed by EFH it is difficult to estimate the nature of the debt relief that would emerge from a restructuring.

Asset Valuation

EFH’s official filings show a loss of enterprise wide valuation from $64.8 billion to $44.1 billion between 2007 and 2011 as shown in Figure 2. This loss of $20.7 billion reflects...

29 www.eei.org Financial Issues/Credit Ratings/Backup Data
30 Standard and Poors, Survey: Energy Future Holdings Corporation:09/10/12
31 Moody's-2012.
32 Reuters, Fitch cuts Energy Futures Holdings IDR to RDS, December 5, 2012.
33 EFH, Form 8K, December 5, 2012, p 2
35 For Discussion of the Board and its interests see section below on Board Governance. Moody’s identified this generic issue in 2007 when it expressed concern over the use of the private equity model for this transaction (see: Moody’s 2007). Any debt restructuring achieved without consideration of the nature of the board of directors of EFH is unlikely to achieve the creation of a stable, well-managed utility. The board is dominated by leveraged buyout experts. In the aftermath of any debt restructuring sound, basic application of utility principles will be needed. For a clear discussion of the relationship between merchant and regulated utility interests and corporate restructurings see: Moody’s 2012.
36 The Oncor ring fence that is supposed to protect the regulated utility from bankruptcy contagion risk and a host of other provisions worked into EFH and its subsidiaries various debt instruments suggest an attempt by EFH management to shape any post restructuring corporate structures. See, as an example, EFH, Form 8K, Article 5, December 5, 2012, the description of “Successors”. How all of these provisions standup in a restructuring arrangement is complex and difficult to estimate.
38 For a recent discussion of the financial conditions of merchant companies in a post-restructuring environment, see: Moody’s 2012.
billion, or 32% occurred after the company added 2,200 MW of new coal fired generation in 2009-2010 worth $4.8 billion.\footnote{EFH 2010-10K Filing, pp 7 & 8}

![Figure 2: EFH Asset Value by Year](image)

EFH’s formal recognition of valuation losses started in the span of one year from the time EFH took operational control of the company.\footnote{Although a TXU press release occurred announcing the deal occurred on February 26, 2007, the Form 10K marks the takeover between at the end of the third quarter of 2007} In the fourth quarter of 2008 the company took its first $8 billion write down.\footnote{For a more complete discussion of the original valuations and impairments taken in 2008, 2009 and 2010 see TR Rose Associates, 2011, pps. 6-13.} In January 2011, the investment CEO’s of KKR and TPG both with investment holdings, funds under management and substantial board positions differed as to the value of the original value of the 2007 investment. KKR believed it to be worth 20 cents on the dollar and TPG 40 cents on the dollar.\footnote{Julia Creswell, A Portfolio’s Price, New York Times, January 4, 2011. The Wall Street Journal now reports that KKR has written off their original EFH investment of $200 million to five cents on the dollars. Mike Spector, Matt Wirz, Ryan Dezember and Rebecca Smith, Former TXU Is Hiring Advisors Amid Debt, Wall Street Journal, February 8, 2013}

**Customer, Revenue, Operating and Stock Value Losses**

In 2007, Moody’s Investor Services’ analytical review of TXU’s financial condition going into the buyout period noted an improved profile.\footnote{Moody’s Investor Service, Proposed Acquisition of TXU by a Consortium of Private Equity Investors Raises Potential Multi-Notch Ratings Downgrade, Moody’s Special Comment, March 2007, p. 3.} A current survey of selected financial indicators shows substantial deterioration in most of the key indicators of corporate financial health.
Table 1: Customer Losses

Since 2005, EFH Lost 500,000 Customers

Table 2: Declining Annual Revenues

2008-2012 EFH Annual Revenue
($ billions)

Table 3: Cumulative Losses

EFH Cumulative losses of $17.7 billion
($ billions)
EFH is unlikely to use capacity dollars to build revenue producing assets. One estimate of a capacity program for Texas puts the price tag at $1.1 to $2.3 billion. EFH/TXU share would be an estimated $294 million.\(^{45}\) EFH’s annual loss for 2012 was $2.2 billion\(^{46}\), seven and one half times the estimated value of one year of estimated capacity revenue.

**Government**

In 2007 Moody’s raised concerns with the use of the private equity model to manage TXU’s assets. The private equity model seeks high rates of return over a relatively short time. This financial model represents the kind of high risk, high yield, speculative investment that is typically not employed by utilities with investment grade ratings. The typical prudent management of utility finances assumes long term, modest but steady rates of return and dividend payments,\(^ {47}\) reflecting the steady growth of wage and business incomes that exist in most service areas of the United States.

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\(^{45}\) Julien Dumoulin Smith, Director Equity Research, UBS, *What would capacity prices look like in Texas*, October 5, 2012.

\(^{46}\) EFH 8K exhibit 99.1 - Risk Factors 1-31-2012

\(^{47}\) For a clear discussion of prudent utility industry financial practice - see: Edison Electric Institute (2011), pps. 17-25. The prudent utility balances operational expenses, capex spending and dividend yields. Operating expenses are kept low, capex spending is designed to produce revenue generating assets and dividend yields, steady, modest increases, meet the needs of both equity and debt investors.
The Energy Future Holdings Corporation board of directors consists of 16 members. According to the 2011 corporate profile the membership is comprised of individuals with the following affiliations and interests:  

- Four members are current employees, partners, founders, advisors or directors of Texas Pacific Group (TPG);
- Three members are current employees, partners, founders, advisors or directors of Kravis, Kohlberg and Roberts (KKR);
- Three members are current employees, partners, founders, advisors, or directors of Goldman Sachs (GS);
- One is a former employee, partner, advisor or director of Citigroup;
- Two are currently affiliated with financial services companies;
- One member has executive level experience with a power generation concern.
- The remaining members have public service and energy backgrounds.

The Board of Directors of EFH, among its many responsibilities, oversees debt policy for the company. This includes, but is not limited to, identifying the short and long term borrowing needs of the company, the type of instruments to be used to most efficiently meet those needs, market timing, market pricing, selection of advisors, counsel, underwriter teams and other experts, sales strategy, credit agency presentations and strategy, investor presentations, risk assessments and a host of other critical issues. A working knowledge of the dynamic nature of EFH’s debt condition is essential as risk and opportunity are ever changing. Knowledge of highly leveraged corporations is a critical part of board work and a reason for board selection.49

In addition to their service to the board KKR, TPG and GS as individual companies have each individually and in their capacity as the Sponsor Group of EFH benefited from revenue generated from their affiliation with EFH. A list of 2011

49 EFH 2011 10K, p. 196.
related third party transactions\textsuperscript{50} are contained in the EFH 2011 annual report, and reproduced, in part below:

- The three companies received fees as members of the Sponsor Group;
- GS Capital Partners entered into secured facility with TCEH an EFH subsidiary;
- Each member of the Sponsor Group served as a financial advisor to EFH during the year;
- GS has acted as a joint book runners on a secured credit facility;
- KKR acted as an initial purchaser and co-manager on another transaction;
- TPG Capital acted as an advisor on another transaction.

Those payments are disclosed in EFH’s annual SEC disclosure statements. Since the Sponsor Group assumed control of the utility, members have received an estimated $528 million from these related party transactions.\textsuperscript{51} This figure only includes those payments directly related to the corporate payments made by EFH directly to the three investment houses. They do not include such payments that may be received by any of the three investment houses from clients under separate management, financial advisory contracts or transaction related instruments from the $4.8 billion in interest payments made in 2011 (or from prior year interest payments). It also does not appear to include any direct payments received by the three investment houses from any direct participation they may have in the financial instruments sold by EFH and purchased by GS, KKR and TPG investment funds.

EFH is a Texas Corporation controlled by the Sponsor Group.\textsuperscript{52} Board membership, like many private equity ventures derives from investor agreements.

\textsuperscript{50} EFH 2011-10K, pps. 180-181. This list from the 2011 Form 10K is for illustration purposes only. It is to demonstrate the robust nature of the three company’s business dealings with EFH. A similar disclosure listing of transactions can be found in the company’s 2008, 2009 and 2010 filings.

\textsuperscript{51} Richard Bravos and Mark Cheflak, \textit{TXU Teeters as KKR et al Reap $528 Million Fees}, Businessweek.com, October 22, 2012.

\textsuperscript{52} EFH 2011-10K, p. 114.
There is limited director independence. In this instance, EFH under the Sponsor Group has very poor financial performance. The skills and experiences of the Board leave it ill-equipped to respond to the reliability issues involved in the current public discussion. Its board of directors interests are poorly aligned with the Texas energy objectives at stake in this discussion of capacity policy.

**Conclusion**

An unfettered infusion of revenue into EFH at this time will simply supply the company with additional cash for debt payments or restructuring, not for improvements to the grid and improved reliability. The company’s past performance, a reasonable assessment of its forward looking debt program and the skills and competencies of its current board demonstrate that debt management is job one of EFH. The capacity market discussion in Texas, as part of broader market design issues seeks an outcome of improved reliability for the electricity grid. EFH is a poor choice of partner for this critical task.

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53 For a discussion of how board governance issues are conducted when directors are independent and companies are listed on the various exchanges see, e.g. Lyman P.Q. Johnson and Mark A Sides, *The Sarbanes-Oxley Act and Fiduciary Duties,* The fiduciary obligation of the board in these companies is required due to their listed status. The fiduciary obligation is a matter of concern to all companies regardless of its legal listing status. [www.wmitchell.edu/lawreview/Volume30/Issue4/JohnsonSides.pdf](http://www.wmitchell.edu/lawreview/Volume30/Issue4/JohnsonSides.pdf). EFH’s, 2011 Form 10K, notes that only two of its current board of directors would meet New York Stock Exchange listing standards for independence if they were required to meet them. See: p. 232.