

1 **Section Three**

2

3 **Q. Have you identified any problems with the Company's proposals concerning its cost**  
4 **of debt?**

5 A. Yes. Two major problems are apparent in TXU's proposed cost of debt calculations: it  
6 has not attempted to minimize the additional costs of debt which are costs necessitated by  
7 its proposed restructuring, and it has incorrectly assumed that the risks associated with its  
8 future T&D operations will be "no less" than the overall average risk currently  
9 experienced by TXU.

10

11 **Q. Would you please explain the first of these problems?**

12 A. Yes. The Company explains that under the terms applicable to much of its existing debt,  
13 TXU is essentially prohibited from transferring "all or substantially all" of its assets to  
14 another entity, including its proposed generation, transmission and distribution  
15 subsidiaries. [Oliver Direct, p. 5] On this basis, TXU has proposed to extinguish all of its  
16 existing debt and to issue new securities. Yet, the restrictions in question doesn't  
17 necessarily apply to all of its outstanding debt securities, nor has the Company provided  
18 any evidence that this drastic approach is unavoidable. To the contrary, there is every  
19 reason to believe that other, less costly, approaches could be used.

20

21 **Q. Can you elaborate on this last point?**

22 A. Yes. TXU proposes to retire and reissue all of its debt to be consistent with its proposal  
23 to transfer all of its assets to some newly formed subsidiaries. One subsidiary would  
24 receive the existing company's generating assets, another would receive the transmission  
25 assets and a third would receive the distribution assets. While this is certainly a simple  
26 solution to the restructuring problem, it is also a very costly one. There are undoubtedly  
27 other, less costly approaches which could be used instead.

1           For example, it might be feasible for the transferee corporation to assume some of  
2           the existing debt obligations, to avoid the cost of extinguishing and reissuing at least  
3           some of the existing securities. Similarly, it isn't necessary to transfer "all or substantially  
4           all" of TXU's assets to another entity in order to comply with the separation requirements  
5           of SB7. One option would be to transfer the T&D assets to an affiliate, while leaving the  
6           generating plants and other unregulated assets in the existing corporation. Another option  
7           would be to transfer the generating plants and other unregulated assets to a new affiliate,  
8           while leaving the T&D assets in the existing corporation. Either way, a partial divestiture  
9           of assets could be accomplished which would avoid a situation in which TXU would be  
10          transferring "all or substantially all" of its existing assets. The first of these alternatives,  
11          for instance, would involve transferring less than 40% of TXU's total assets. Of course,  
12          this approach would necessitate extinguishing and reissuing some of the existing debt, to  
13          ensure that the unregulated operations aren't excessively leveraged, and to ensure that the  
14          T&D affiliate is financed with an appropriate mix of debt and equity. However, it would  
15          not require extinguishing all of the debt; the great majority of the assets and associated  
16          debt would remain intact within the existing corporate entity.

17           Under TXU's proposal, through a combination of tendering and defeasance, TXU  
18          would extinguish all of its existing debt securities, and replace them with newly issued  
19          securities. This is clearly not a cost minimizing approach to the restructuring challenge.  
20          Even if it decides to go through with this approach, and the Commission allows it to do  
21          so, the excessively high cost of this approach should be disallowed for ratemaking  
22          purposes.

23  
24          **Q. Can you elaborate on how could restructure its debt in a less costly manner?**

25          A. Yes. There are multiple options available and I haven't examined all of the subtle  
26          nuances which would be involved in developing an optimal debt restructuring approach.  
27          However, it is clear that a completely "fresh start" is neither required nor cost effective.  
28          While there are undoubtedly some benefits to legally isolating the T&D assets from the

1 generating assets by placing them in separate corporate entities, this can be accomplished  
2 without transferring all of TXU's assets and without refinancing all of its debt.

3 One of the simplest alternatives would be for TXU to form a new subsidiary and  
4 transfer just the T&D assets to this entity. The generating plants and other unregulated  
5 assets would remain within the existing corporation, precluding the need to refinance  
6 debt associated with those assets. If it were deemed inappropriate to have the T&D entity  
7 controlled by the generation/unregulated entity, the stock of the T&D affiliate could be  
8 transferred to a parent corporation, which would control both the generating subsidiary  
9 and the T&D subsidiary. While the same group of stockholders would ultimately control  
10 and profit from both subsidiaries, the T&D operations would be legally separated from  
11 the unregulated operations, without selling "all or substantially all" of TXU's assets, and  
12 without needing to refinance all of its debt.

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14 **Q. Why should the Commission be concerned about minimizing TXU's debt  
15 restructuring costs, at least for regulatory purposes?**

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17 A. To the extent TXU is allowed to include unnecessarily high debt costs in its T&D rates,  
18 this will reduce the "head room" which is available to potential competitors, it will  
19 increase barriers to competitive entry, and it will eventually force retail customers to pay  
20 more for electricity than is really necessary. As a matter of sound public policy, the  
21 Commission should disallow any debt costs in excess of the minimum level necessary to  
22 achieve the legally required separation of regulated and unregulated operations.

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25 **Q. Has the Commission indicated the type of restructuring costs that should be  
26 included in this proceeding?**

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28 A. Yes. In Order 17, the Commission outlined the parameters for the treatment of  
29 restructuring costs. It stated,

30  
31 The Commission also finds that T&D-related restructuring costs for  
32 capital expenditures and associated depreciation, as well as annual

1 expenses, should generally be treated according to traditional rate-making  
2 principles and the provisions of PURA § 36.501. T&D restructuring  
3 expenses that are determined reasonable and necessary and are expected to  
4 be incurred in the 2002 forecasted test year may be included in the  
5 transmission and distribution rates. (Emphasis added). [Order 17, p. 6]  
6

7 The costs associated with extinguishing and replacing all of TXU's existing debt clearly  
8 does not fit the definition of "reasonable and necessary" costs. This sweeping approach is  
9 certainly not necessary and it results in unreasonably high debt costs. For ratemaking  
10 purposes, the Commission should assume the use of a more conservative restructuring  
11 approach, which reduces the amount of debt which is extinguished, and minimizes the  
12 overall cost of the restructuring.

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15 **Q. Would you please explain your second problem with the Company's cost of debt  
16 filing?**

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18 A. Yes. I am troubled by TXU's assertion that its T&D subsidiary will experience "no less"  
19 risk than its generation subsidiary. In his direct testimony, Mr. Oliver outlines this  
20 argument.

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22 The risk profiles of the transmission and distribution utilities will be no  
23 less than the risk profile today of the existing utility in the current  
24 regulated business environment. In my opinion, there are several factors  
25 that will likely cause an increase in the future transmission and  
26 distribution utilities risk profiles. [Oliver Direct, p. 19]  
27

28 Mr. Oliver further explains that the importance of grid integrity and the uncertainty  
29 concerning the establishment of regulatory requirements and he argues that those  
30 requirements will lead to increased risks for the T&D affiliate. In the process he implies  
31 that the risks associated with future T&D operations will be even greater than those of the  
32 existing company.  
33

1                   The transmission and distribution utilities will be no less risky than the  
2                   vertically integrated utility. The elements of risk that they will experience  
3                   in their critical central positions, the need to acquire large amounts of  
4                   capital, the fact that they will be much smaller entities, and their ongoing  
5                   regulated status will all combine to produce a set of operating  
6                   characteristics and risks that are comparable to or greater than those  
7                   historically encountered by the vertically integrated utility. [Oliver Direct,  
8                   p. 24]  
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10           **Q.    Why do you disagree with this line of reasoning?**

11  
12           A.    It is well established that the risk faced by the average electric company is lower than that  
13           of the average unregulated firm. For example, most utilities face relatively minimal risks  
14           due to unpredictable changes in the business cycle, fluctuations in consumer preferences,  
15           and other forces that cause industry-wide demand to fluctuate. While the demand for  
16           electricity is correlated with the overall level of economic activity, moderating during  
17           recessions and increasing during upswings in the business cycle, this correlation tends to  
18           result in relatively mild and predictable fluctuations in the revenues and profits of electric  
19           utilities.

20                   The explanation for this fundamental difference in risk is quite straightforward.  
21           Electric utilities, like the firms that provide water and sewer service, garbage collection  
22           service and gas distribution service, provide a basic necessity for which there is strong,  
23           steady demand. These firms are less subject than the average firm to the risks and  
24           uncertainties associated with the business cycle and changing consumer preferences. In  
25           Texas, the demand for electricity has historically held relatively firm throughout a  
26           recession and it does not increase sharply in periods of economic expansion. Rather,  
27           demand tends to grow as part of a long-term trend, with relatively minor fluctuations in  
28           the rate of growth occurring from year to year due to changing economic conditions and  
29           demographic factors. While demand also fluctuates over the short term due to changing  
30           weather conditions, this is not a major source of risk, particularly for debt holders, since  
31           weather patterns tend to average out over the longer term. In contrast, most truly

1 competitive firms face great uncertainty about the actions of their competitors, demand  
2 for their products, and the long term prospects of their entire industry.

3  
4 **Q. Can you elaborate on why electric utilities are less risky than industrials?**

5 A. Different utilities experience different demand elasticities. Some products and services,  
6 like electricity have no short-run substitutes. In the case of electricity, even if the service  
7 isn't an absolute necessity, it is almost indispensable for many users. Studies confirm that  
8 the elasticity of demand for electricity is very low, thereby reducing the risk of the  
9 average electric utility to a level well below that of the typical industrial firm. Another  
10 consideration is that most electric utilities are monopolists, who do not face competition  
11 from other suppliers. Similarly, electric utilities do not face the risks of international  
12 competition to the same extent as manufacturing firms which could potentially face the  
13 threat of "dumping" by overseas manufacturers, rapidly changing price levels due to  
14 fluctuating foreign exchange rates, and the like. For these reasons and others, it has  
15 always been clear that regulated electric utilities face risks which are far below those of  
16 the typical unregulated firm.

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19 **Q. What about the risks facing utilities which only provide T&D services?**

20 A. The electricity wouldn't be worth generating, if there were no method for sending it to  
21 those who want to consume it. Transmission lines, substations, distribution lines and  
22 transformers are all absolute necessities which must be used in order to efficiently  
23 transfer electricity from the point of production to the point of consumption. Many of the  
24 same factors which make it logical to continue to regulate this segment of the industry  
25 will ensure that the T&D utilities continue to operate in a very stable, low risk  
26 environment. Regardless of which retail service provider a household selects, or which  
27 generating source this provider selects, the T&D utility will be involved in transferring  
28 power from the point of generation to the point of consumption, and it faces little or no  
29 risk of failing to recover the costs it incurs in performing this function.

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3 **Q. You've made a persuasive argument that the T&D risks will be low. Are they lower**  
4 **than the risks associated with generation?**

5  
6 A. Absolutely. Perhaps the easiest way to communicate the difference in risk is to focus on  
7 the risks that the Company's generating affiliate will face which its T&D affiliate will not  
8 face. Perhaps the most obvious difference is that generation will be accomplished in a  
9 competitive market. If a generating plant, or set of generating plants, can't produce  
10 electricity at low cost, there is no assurance the owner of these plants will be able to  
11 recover their costs, or earn a profit. To the contrary, management decisions and  
12 competitive forces will determine the extent to which particular generating firms prosper  
13 or fail. Generating plants will compete with other plants within the same immediate  
14 market area, as well as plants that are located hundreds of miles away. Plants which are  
15 located in areas where demand is strong will tend to be more profitable than those which  
16 are located in markets where demand is weak, but the risks associated with each plant's  
17 unique location are minuscule compared with the other risks associated with each  
18 particular plant, including the fuel type, engineering design, operating characteristics, and  
19 operational success.

20 As we have seen recently, the cost of generating electricity is heavily influenced  
21 by changing fuel prices. Yet, not all plants are equally affected by these changes. Some  
22 plants are more fuel-efficient than others, and thus will tend to benefit from a high cost  
23 environment, while other plants may be so inefficient they cannot be operated  
24 profitably when fuel prices are high. However, if fuel costs remain high for a sustained  
25 period, new plants may be built to take advantage of this situation, further exacerbating  
26 the risks facing owners of existing generating plants.

27 In general, it is fair to say that most of the risks associated with the electric utility  
28 industry lie within the generating sector. A generating plant is dependent upon the  
29 transmission lines that connect it with the markets that it serves, but not vice versa. If a  
30 particular generating plant were to shut down, the T&D utility serving that plant will

1 continue to charge retail service providers for the use of its system. Those providers will  
2 continue to be dependent upon the T&D system. If a particular plant shuts down, or  
3 particular fuel sources become more costly than others, retail providers and their  
4 consumers will shift to other generating sources. Regardless of which generating  
5 companies are prospering and which ones are going bankrupt, consumers and retail  
6 service providers will need the T&D system to move power from its point of generation  
7 to its point of consumption, and they will be forced to pay whatever rates this  
8 Commission establishes for this function.

9  
10 **Q. Will the industry restructuring in Texas change the relative level of risks facing the**  
11 **generation and T&D sectors of the industry?**

12 A. Yes. These changes will tend to magnify the risk differences between these sectors. As I  
13 have explained, the risk associated with providing T&D services is inherently lower than  
14 the risky associated with generating electricity or providing electric service to retail  
15 customers, assuming all other factors are equal. Of course, other factors are not equal. In  
16 particular, the generating and retailing portions of the industry will be subject to greater  
17 competitive uncertainties, and this will widen the difference in risk characteristics.  
18 If competition works as it is intended, TXU will see increased competitive pressures and  
19 it will increasingly face uncertainties about how well its' generating plants perform  
20 relative to those of its competitors. If its plants are not available as many hours as those  
21 of its competitors, or if its fuel efficiency declines, it will face downward pressures on its  
22 profits which would not exist in a monopoly environment. In an increasingly competitive  
23 environment, each generating utility will not only face uncertainties about it's the  
24 performance of its own plants, it will also face uncontrollable risks associated with the  
25 operations of its competitors. For instance, excessive optimism by other firms could lead  
26 them to build too many new generating plants, which could lead to a glut of generating  
27 capacity. This would depress electricity prices and hurt all generating companies—not just

1 those who over build. The unregulated generating companies will face far larger risks  
2 than those which will face the regulated T&D companies.

3  
4 **Q. Is there reason to be concerned that TXU will be unable to succeed in a competitive  
5 environment?**

6  
7 A. No. While the Company will be confronting substantial risks in the generation and retail  
8 portions of its business, there is no reason to assume that it will be unable to succeed in  
9 the new environment. Certainly, TXU's management has not indicated any lack of  
10 confidence in its ability to survive and prosper under the new industry structure.  
11 According to a press release issued in the wake of the signing of the state's electric utility  
12 restructuring bill, TXU management seems quite confident of their ability to thrive in the  
13 new environment:

14  
15 "Today's action by the Governor represents a great step forward for the  
16 people of Texas," said Tom Baker, president of distribution for TXU  
17 Electric & Gas. "It also signals the beginning of a very exciting period for  
18 the company." Baker said the company has a team of executives that is  
19 leading the company's preparation for competition. The team will  
20 coordinate the restructuring of TXU Electric into regulated transmission  
21 and distribution and non-regulated generation and retail electric provider  
22 entities, which will be complete for the January 1, 2002 date for opening  
23 competition. ... "Through continuous cost management and customer  
24 focus and the lessons learned in TXU's other markets, the company is  
25 uniquely positioned to succeed in a competitive market," Baker added.  
26 [[www.txu.com](http://www.txu.com), News and Information, June 18, 1999]

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28  
29 **Q. How has Mr. Oliver supported his argument that T&D will be no less risky, and  
30 potentially even more risky, than the generating company?**

31 A. He uses four contentions in an effort to substantiate his claim—the critical central position  
32 of the T&D entity, the need for the T&D entity to acquire large amounts of capital, the  
33 fact that the T&D entity will be a smaller, less diversified entity, and the fact that the  
34 T&D entity will continue to be closely regulated. [Oliver Direct, pp. 19-24]

1 **Q. How would you respond to these arguments?**

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3 A. None of these contentions are persuasive. To the contrary, some of these factors tend to  
4 make the T&D business less risky than the generating business, rather than vice versa.  
5 First, although the T&D entity will indeed play a central role in the industry, performing  
6 the vital function of getting electricity from a generating plant to a consumer, the very  
7 fact that this role is so important and indispensable makes it a less risky investment.  
8 From an investor's perspective, the central role of the T&D entity serves to intensify its  
9 monopoly power and make it even less vulnerable to economic and competitive  
10 pressures. Purchasers of debt securities issued by the T&D entity can be highly confident  
11 that the firm will be able to charge high enough prices to cover all of its debt obligations.  
12 Unlike a typical unregulated firm which performs a less vital function, the T&D utility  
13 does not have to be concerned about pricing itself out of the market. Just as purchasers of  
14 government bonds can be confident that taxes can be increased if necessary to cover their  
15 debt obligations, purchasers of the T&D entity's bonds can be confident that the T&D  
16 utility can eventually increase its rates if necessary to fulfill its debt obligations.  
17 Second, both the generation and T&D sectors of the industry involve vast sums of capital.  
18 Mr. Oliver cites ERCOT transmission constraint relief projects that will potentially  
19 involve upwards of \$170 million of new transmission lines by 2002. While this is  
20 certainly a large sum, it is not self-evident that all of these lines will need to be built in  
21 this time frame, nor is this an especially large capital budget for a market this large. For  
22 that matter, it is worth noting that this budget involves multiple construction projects,  
23 whereas a single base load generating plant can easily involve far larger amounts of  
24 capital. A capital budget of \$170 million spread over a diversified mix of different  
25 construction projects is obviously less risky than a budget of \$500 million or more  
26 devoted to a single construction project.  
27 Third, the T&D utility will indeed be a smaller entity, but it won't be  
28 unreasonably small. While it won't be as diversified as TXU is today, this will also be  
29 true of the new generating company as well. The T&D utility will still enjoy some of the

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**Direct Testimony of Ben Johnson, Ph.D.**

On behalf of the Office of Public Utility Counsel

SOAH Docket No. 473-00-1015, PUC Docket No. 22350

1 benefits of diversification in the sense that it will continue to serve multiple different  
2 markets, providing service to millions of separate businesses and households. For that  
3 matter, from a debt holder's perspective bigger isn't always better. By having separate  
4 management which is specifically focused on the T&D function, the new entity may  
5 become more streamlined and efficient, and, in the end, provide fewer earnings surprises  
6 and a safer return for its debt holders.

7 Fourth, the fact that the T&D utility will continue to be regulated is certainly true,  
8 but this does not increase the risk facing its debt holders. To the contrary, regulation will  
9 serve to stabilize the environment in which the T&D utility operates, and provide  
10 additional protections to debt holders. Mr. Oliver cites the lag time and other difficulties  
11 encountered with trying to obtain approval for rate changes or new construction projects.  
12 While these factors certainly complicate management's task, they do not increase the  
13 risks faced by debt holders. Even if regulation did somehow increase risk in some  
14 regards, it indisputably also serves to reduce the risks facing debt holders. For instance,  
15 regulators prevent firms from fully exploiting their monopoly power, and thereby hold  
16 rates below the maximum level that the market will bear. While this is intended to protect  
17 customers from price gouging, from a debt holder's perspective it also has the effect of  
18 providing a "cushion" which can be relied upon during difficult times. Thus, if a  
19 regulated firm faces an earnings shortfall, it can go to its regulators and obtain permission  
20 to increase its rates, thereby ensuring that it will continue to meet all of its debt  
21 obligations.

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24 **Q. How does Mr. Oliver's assumption about the risk associated with T&D relate to its**  
25 **debt cost proposals?**  
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**Direct Testimony of Ben Johnson, Ph.D.**

On behalf of the Office of Public Utility Counsel  
SOAH Docket No. 473-00-1015, PUC Docket No. 22350

1 A. Normally, the cost of debt is a relatively non-controversial issue in a rate case. The  
2 parties and the Commission know exactly what debt securities are outstanding, what the  
3 associated interest payments are, as well as the other miscellaneous costs (e.g. issuance  
4 expense). In contrast, the debt cost requested by TXU in this proceeding is a matter of  
5 speculation, based upon a series of debatable assumptions, including the invalid  
6 assumption that the T&D utility will face as much risk as the combined entity (including  
7 generation). The effect of the Company's methodology and assumptions is to impose on  
8 the T&D operations an unreasonably high cost of debt. A more appropriate approach  
9 would involve extinguishing and refinancing a smaller fraction of the Company's total  
10 debt, and it would ensure that the resulting debt costs of the T&D operations are  
11 relatively low, consistent with the relatively low level of risk associated with those  
12 operations.

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15 **Q. Have you developed an alternative estimate of the T&D debt costs?**

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17 A. Yes. As I explained earlier, TXU has proposed extinguishing all of its existing debt. The  
18 total book value of this debt is **\*\*\*Proprietary Proprietary\*\*\***.  
19 [Confidential Discovery Response OPC-RFI Set 36 Q3] The Company has attributed  
20 \$2,565,683,000 in debt is attributed to T&D [TXU WP/III-C (T)/3 Update]; the  
21 remainder is attributed to generation assets. [Confidential Discovery Response OPC-RFI  
22 Set 36 Q3] As I have explained, TXU does not need to refinance the entirety of this debt.  
23 The approach I have used is to modify the Company's debt cost calculations to a limited  
24 extent, based upon the assumption that the T&D assets would be transferred to an  
25 affiliate, while the generating plants and other unregulated assets would remain within  
26 the existing corporation.

27 The appropriate capital structure to be used in these calculations is being  
28 examined by the Commission in Docket number 22344. In that proceeding, OPC witness  
29 Steven Hill recommended use of a target capital structure consisting of 60% debt and  
30 40% equity. [Steven Hill, Direct Testimony, TX Docket No. 22344, p. 22] Applying this

1           60% ratio to OPC’s recommended T&D rate base of \$4,861,667,428 for the forecasted  
2           test year indicates a target debt level of \$2,917,000,457.

3                     In the Company’s debt cost workpapers, it identified certain debt securities which  
4           it believes should be attributed to the T&D operations. I haven’t evaluated all of the  
5           judgment calls involved in this attribution process. Instead, for purposes of my  
6           recommendation I have simply accepted the results, which attribute to the T&D utility  
7           debt amounting to \$2,565,683,000, or approximately 88% of the target debt level  
8           assuming a 60% debt ratio. The interest rates associated with these securities are  
9           reasonably similar to the overall average interest rate paid on all of the Company’s debt.  
10          Accordingly, I assumed that this particular portion of the Company’s debt will be  
11          extinguished, and that the remaining debt will remain on TXU’s books, along with its  
12          generating plants and other unregulated assets.

13  
14      **Q.   How did you calculate the various costs associated with extinguishing and**  
15      **refinancing this debt?**

16      A.   I basically accepted TXU’s methodology and cost estimates with two major exceptions.  
17          First, I adjusted the cost estimates downward to account for the fact that only a portion of  
18          the debt would be extinguished. Second, I allocated 38.3% of the resulting restructuring  
19          costs to the new T&D subsidiary, while leaving 61.7% of the costs in the existing entity,  
20          to be recovered from the unregulated operations.

21                     In its workpapers, TXU developed separate debt restructuring cost estimates for  
22          each of its existing securities. I simply accepted its cost estimates for the securities it  
23          attributed to the T&D operations, and “zeroed out” the costs of the remaining ones, based  
24          upon the assumption that these are the ones that would not be extinguished or refinanced.  
25          I used the same basic approach for the various other costs, including the “Amortization of  
26          Loss on Reacquired Debt Related to Restructuring” and the “Amortization of Debt  
27          Expense (for debt issued in 2000-2001).” For the item labeled “Amortization of Existing  
28          Balance of Loss on Reacquired Debt,” I utilized a slightly different approach. In its

1           workpapers TXU did not give any indication which portion of these costs is attributable  
2           to specific debt securities. Hence, I reduced this item on a pro-rata basis, consistent with  
3           the overall portion of the existing debt which would be extinguished under my  
4           recommended approach.