

Transcript of Proceedings Volume 3

6/1/2018

Page 1 (626 - 629)

Page 626 1 STATE OF NORTH DAKOTA 2 PUBLIC SERVICE COMMISSION 3 4 Public Service Commission) 5 Montana-Dakota Utilities Co.) Case No. PU-17-295 6 2017 Natural Gas Rate Increase) 7) 8) 9) 10 11 12 TRANSCRIPT OF PROCEEDINGS 13 HEARING 14 VOLUME 3 15 (Pages 626 to 962) 16 Taken Friday, June 1, 2018 17 Commencing at 8:30 a.m. 18 19 20 21 REPORTED BY: CHRISTA A. REESER, RPR, CRR, CRC 22 23 24 25	Page 628 1 APPEARANCES (Continued) 2 3 ON BEHALF OF MONTANA-DAKOTA UTILITIES: 4 5 Paul R. Sanderson, Esq. 6 EVENSON SANDERSON, PC 7 1100 College Drive, Suite 5 8 Bismarck, North Dakota 58501 9 701-751-1243 10 psanderson@esattorneys.com 11 12 13 ON BEHALF OF NORTH DAKOTA PSC ADVOCACY STAFF: 14 15 Mitchell D. Armstrong, Esq. 16 SMITH PORSBORG SCHWEIGERT ARMSTRONG MOLDENHAUER 17 & SMITH 18 122 East Broadway Avenue 19 Bismarck, North Dakota 58503 20 701-258-0630 21 marmstrong@smithporsborg.com 22 23 24 (APPEARANCES continued on next page) 25
Page 627 1 Volume 3 of 3, PUBLIC SERVICE COMMISSION 2 HEARING taken on Friday, June 1, 2018, commencing at 3 8:30 a.m. at the North Dakota State Capitol Building, 4 600 E Boulevard Avenue, Bismarck, North Dakota, before 5 Christa A. Reeser, Registered Professional Reporter, 6 Certified Realtime Reporter, Certified Realtime 7 Captioner, and Notary Public of and for the State of 8 North Dakota. 9 10 ***** 11 12 APPEARANCES 13 14 HEARING OFFICER: 15 Patrick J. Ward, Administrative Law Judge 16 ZUGER KIRMIS & SMITH 17 P.O. Box 1695 18 Bismarck, North Dakota 58502 19 701-223-2711 20 pward@zkslaw.com 21 22 23 24 (APPEARANCES continued on next page) 25	Page 629 1 APPEARANCES (Continued) 2 3 John M. Schuh, Esq. 4 Special Assistant Attorney General 5 North Dakota Public Service Commission 6 600 E. Boulevard Avenue, Dept. 408 7 Bismarck, North Dakota 58505-0480 8 701-328-2421 9 jschuh@nd.gov 10 11 12 ON BEHALF OF THE ADVISORY STAFF: 13 14 Illona A. Jeffcoat-Sacco, Esq. 15 Public Service Commission 16 600 E. Boulevard Avenue, Dept. 408 17 Bismarck, North Dakota 58505-0480 18 701-328-2400 19 ijs@nd.gov 20 21 22 23 24 (APPEARANCES continued on next page) 25

Transcript of Proceedings Volume 3

6/1/2018

Page 2 (630 - 633)

Page 630		Page 632	
1	APPEARANCES (Continued)	1	Redirect Examination by Mr. Armstrong... 726
2		2	Recross-Examination by Mr. Sanderson.... 731
3	ON BEHALF OF THE INTERVENOR AARP:	3	Recross-Examination by Major Unsicker... 737
4		4	
5	John B. Coffman, Esq.	5	14. Dante Mugrace
6	John B. Coffman LLC	6	Direct Examination by Mr. Armstrong..... 740
7	871 Tuxedo Boulevard	7	Cross-Examination by Mr. Sanderson..... 754
8	St. Louis, Missouri 63119-2044	8	Examination by Commissioner Kroshus..... 778
9	573-424-6779	9	Examination by Chairman Christmann..... 781
10	john@johncoffman.net	10	Examination by Commissioner Fedorchak... 783
11		11	Recross-Examination by Mr. Sanderson.... 790
12		12	Recross-Examination by Ms. Jeffcoat-Sacco 796
13	ON BEHALF OF THE INTERVENOR FEDERAL EXECUTIVE AGENCIES:	13	
14		14	15. Victor Schock
15	Major Andrew J. Unsicker, Esq.	15	Direct Examination by Mr. Armstrong..... 798
16	AFLOA/JACE-ULFSC	16	Cross-Examination by Mr. Sanderson..... 806
17	139 Barnes Drive, Suite 1	17	Cross-Examination by Ms. Jeffcoat-Sacco. 807
18	Tyndall Air Force Base, Florida 32403	18	Examination by Commissioner Kroshus..... 808
19	850-283-6347	19	Examination by Chairman Christmann..... 812
20	Andrew.unsicker@us.af.mil	20	Examination by Commissioner Fedorchak... 818
21		21	Redirect Examination by Mr. Armstrong... 825
22		22	Recross-Examination by Mr. Sanderson.... 827
23		23	Recross-Examination by Ms. Jeffcoat-Sacco 833
24		24	
25		25	
Page 631		Page 633	
1	I N D E X	1	(On behalf of Advisory Staff)
2		2	16. Patrick Fahn
3	WITNESSES: PAGE	3	Examination by Commissioner Fedorchak... 835
4	(On behalf of FAE)	4	Direct Examination by Ms. Jeffcoat-Sacco 843
5	12. Michael Gorman	5	Examination by Commissioner Kroshus..... 843
6	Direct Examination by Major Unsicker.... 636	6	Examination by Chairman Christmann..... 844
7	Cross-Examination by Mr. Sanderson..... 642	7	
8	Cross-Examination by Mr. Coffman..... 655	8	(Rebuttal Witnesses on behalf of MDU)
9	Examination by Commissioner Kroshus..... 663	9	17. Nicole Kivitso
10	Examination by Chairman Christmann..... 665	10	Direct Examination by Mr. Sanderson..... 846
11	Examination by Commissioner Fedorchak... 667	11	Cross-Examination by Mr. Armstrong..... 857
12	Redirect Examination by Major Unsicker.. 672	12	Cross-Examination by Ms. Jeffcoat-Sacco. 863
13	Recross-Examination by Mr. Sanderson.... 675	13	Examination by Commissioner Kroshus..... 865
14	Recross-Examination by Mr. Coffman..... 687	14	Examination by Chairman Christmann..... 867
15	Examination by Commissioner Kroshus..... 689	15	Examination by Commissioner Fedorchak... 869
16		16	Recross-Examination by Ms. Jeffcoat-Sacco 872
17	(On behalf of Advocacy Staff)	17	Recross-Examination by Mr. Armstrong.... 875
18	13. Dr. Marlon Griffing	18	
19	Direct Examination by Mr. Armstrong..... 691	19	18. Stephanie Bosch
20	Cross-Examination by Mr. Sanderson..... 705	20	Direct Examination by Mr. Sanderson..... 876
21	Cross-Examination by Mr. Coffman..... 712	21	
22	Cross-Examination by Major Unsicker..... 713	22	19. Travis Jacobson
23	Examination by Commissioner Kroshus..... 715	23	Direct Examination by Mr. Sanderson..... 880
24	Examination by Chairman Christmann..... 720	24	Examination by Chairman Christmann..... 883
25	Examination by Commissioner Fedorchak... 721	25	

Transcript of Proceedings Volume 3

6/1/2018

Page 3 (634 - 637)

Page 634	Page 636
1 15. Patrick Darras 2 Direct Examination by Mr. Sanderson..... 885 3 Cross-Examination by Mr. Armstrong..... 900 4 Cross-Examination by Ms. Jeffcoat-Sacco. 908 5 Examination by The Court..... 911 6 Examination by Commissioner Kroshus..... 916 7 Examination by Chairman Christmann..... 918 8 Redirect Examination by Mr. Sanderson... 926 9 Recross-Examination by Mr. Armstrong.... 927	1 duly sworn, was examined and testifies as follows: 2 3 THE WITNESS: I do. 4 THE COURT: Thank you. Major. 5 MAJOR UNSICKER: Thank you, sir. 6 7 DIRECT EXAMINATION 8 BY MAJOR UNSICKER: 9 Q. Mr. Gorman, could you please state your name 10 and address? 11 A. My name is Michael Gorman, address is 16690 12 Swingley Ridge Road, Chesterfield, Missouri. 13 Q. And who are you employed by and in what 14 capacity? 15 A. Brubaker & Associates as a managing principal. 16 Q. And who are you representing at this hearing? 17 A. Federal Executive Agency. 18 Q. And what's the purpose of your testimony? 19 A. Purpose of my testimony is to respond to the 20 Company's requested overall rate of return and to 21 respond to their proposed spread of the revenue 22 deficiency in this proceeding across rate classes in 23 the manner that moves rates towards cost of service 24 while considering a gradual impact towards that 25 movement to cost to ensure no customer class receives
Page 635	Page 637
1 PROCEEDINGS, June 1, 2018: 8:30 A.M. 2 3 THE COURT: Okay. We'll call it to order 4 here. It's about 8:30 a.m., June 1st. This is day 5 three, MDU Natural Gas rate case, Case Number 6 PU-17-295. 7 It's my understanding that the attorneys have 8 agreed that Major Unsicker can call his witness out of 9 order at this time; is that correct? Mr. Armstrong? 10 MR. ARMSTRONG: Yes. 11 THE COURT: Mr. Sanderson? 12 MR. SANDERSON: Yes, Your Honor. 13 THE COURT: Mr. Coffman? 14 MR. COFFMAN: Yes. 15 THE COURT: Okay. Ms. Jeffcoat-Sacco? 16 MS. JEFFCOAT-SACCO: No problem. 17 THE COURT: Okay. Major Unsicker. 18 MAJOR UNSICKER: Thank you, sir. FEA 19 would call Mike Gorman. 20 THE COURT: Mr. Gorman, I think you're the 21 first one where I can guess your spelling of your first 22 and last name. 23 Raise your right hand. 24 25 MICHAEL GORMAN,	1 an excessive increase in this case. 2 Q. And are you the same Michael Gorman who 3 provided pre-filed testimony in this case on December 4 18, 2017 and rebuttal on January 17, 2018, which are 5 marked as hearing exhibits FEA Exhibit 29, and FEA 6 Exhibit 30 respectively? 7 A. Yes. 8 Q. Were these documents drafted by you at your 9 direction? 10 A. They were. 11 Q. Do you have any corrections to these exhibits? 12 A. I do not. 13 Q. If I asked the same questions today would your 14 answers be the same? 15 A. They would. 16 Q. Can you give a brief background of your 17 education and work experience? 18 A. I have an undergraduate degree in electrical 19 engineering, a master's degree in business 20 administration, concentration in finance. I've 21 completed the three certification tests for charter 22 financial analyst designation. I started in the 23 regulatory business about 30 years ago with the 24 Illinois Commerce Commission. I worked -- my final 25 position with the Illinois Commission was director of

Page 638 1 financial analysis division. At that point, I took a 2 position with Drazen-Brubaker & Associates, which is 3 the predecessor firm to my current firm. Took that 4 position about 1990. Since then, I've been involved in 5 regulatory proceedings and competitive procurement 6 practices for large industrial and institutional 7 consumers of utility services. 8 I have extensive experience in rate cases and 9 integrated resource planning, certain regulatory policy 10 decisions for all forms of utility companies, electric, 11 gas, water and waste water. My primary area of 12 specialization, if I have one, would be financial 13 integrity, cost of capital and integrated resource 14 planning for utility companies. But I also have quite 15 a bit of background in class cost of service studies 16 and utility rate design and many other aspects related 17 to rate setting, revenue requirements and financial 18 integrity of utilities. 19 Q. Thank you. And your testimony in this case 20 focused on cost of service and cost of capital. Can 21 you give us a brief summary of those portions of your 22 testimony? 23 A. Yes. In my testimony I go through my 24 recommended rate of return recommendations and my 25 proposed spread of the claimed revenue deficiency in	Page 640 1 of 9.1 percent with the Company's capital structure 2 would produce adequate credit metrics on a retail cost 3 of service basis for this utility in North Dakota and 4 found that the resulting credit metrics would be 5 adequate to support the utility's credit standing. And 6 with that, I conclude that my return on equity is both 7 -- represents fair compensation and will maintain 8 financial integrity and credit standing for the utility 9 and do so at a lower cost to retail customers than the 10 Company's recommended 10 percent return on equity. 11 From a revenue spread perspective, I've 12 reviewed the Company's proposed revenue spread and 13 their class cost of service study. I largely agree 14 with the class cost of service study, I believe it does 15 properly allocate the fixed cost of service across rate 16 classes, and it does also recognize that there are 17 certain aspects of fixed cost that are incurred on the 18 basis of location and number of customers rather than 19 the demands of customers. So I feel the Company's 20 class cost of service study accurately allocates their 21 fixed cost across rate classes. 22 I also reviewed their proposed movement of 23 rates towards cost of service based on the results of 24 that cost study and found it was reasonable recognizing 25 the need for gradual movement towards cost of service.
Page 639 1 this case. For the rate of return, the Company is 2 requesting a return on equity of 10 percent. I did not 3 take issue with the Company's proposed capital 4 structure. I do take issue with the return on equity 5 of 10 percent as being reasonable. 6 A return on equity should be adequate to 7 provide fair compensation to the utility. It should 8 also be adequate to maintain the utility's financial 9 integrity, but it should do so at reasonable cost to 10 retail customers. Return on equity, I believe in the 11 range of 8.8 to 9.3 percent is adequate to fairly 12 compensate the utility to maintain its financial 13 integrity and support its investment great bond rating. 14 My recommended rate setting return on equity of 9.1 15 percent. 16 In measuring a fair return on equity, I 17 considered various market models. The discounted cash 18 flow analysis, I performed three different versions of 19 that study. I also considered the risk premium 20 analysis and a study referred to as the capital asset 21 pricing model. Those analyses along with observation 22 of -- or review observable market evidence led me to 23 support my conclusion that a fair return on equity in 24 this case would be in the range of 8.8 to 9.3 percent. 25 I then studied whether or not a rate of return	Page 641 1 More specifically, the Company's study found that 2 certain rate classes should get a rate decrease while 3 other classes should get an increase much higher than 4 the system average increase, but the Company largely 5 limited the increase to customers at a price below cost 6 to about 1.5 times system average increase. It didn't 7 move the customers rates who are already above cost of 8 service, they didn't propose a decrease to them. 9 While I think that does move rates closer to 10 cost of service, it does so at a gradualistic manner 11 which does consider the rate consequences on customers 12 and rates need to be increased to bring that to cost of 13 service. From that, I found the Company's proposed 14 revenue spread to be reasonable. 15 Q. Thank you, sir. 16 MAJOR UNSICKER: And at this time I would 17 tender Mike Gorman for Cross-Examination. 18 Your Honor, do I need to provide copies of his 19 testimony? 20 THE COURT: It's in the record. I mean, 21 if you have copies and they haven't been distributed, 22 yes. Exhibit 28 and 29? 23 MAJOR UNSICKER: Yes. 24 THE COURT: They should already have it. 25 Exhibit 29 and 30. Do you have FEA-29 and 30?

Transcript of Proceedings Volume 3

6/1/2018

Page 5 (642 - 645)

Page 642 1 COMMISSIONER FEDORCHAK: We have the 2 pre-filed testimony. But it's from the pre-filed. 3 MAJOR UNSICKER: No, it's nothing 4 different than that. I just want to make sure. 5 THE COURT: Okay. All right. Okay. Mr. 6 Sanderson. 7 MR. SANDERSON: Thank you. 8 9 CROSS-EXAMINATION 10 BY MR. SANDERSON: 11 Q. Good morning, Mr. Gorman. We met briefly a 12 moment ago, but my name is Paul Sanderson, I represent 13 Montana-Dakota Utilities in this case. 14 Mr. Gorman, I'd like to start out with just 15 asking you a few questions and I think on some areas 16 that you are in agreement with the Company. And I'm 17 clear, you take no issue with the Company's class cost 18 of service study? 19 A. That's correct. 20 Q. Okay. And you also -- no issue with the 21 allocation of the rate increase amongst the customer 22 classes, correct? 23 A. Correct. 24 Q. Now, one of the things I believe you said in 25 your direct and referred to is that there's a certain	Page 644 1 to manage their cost of utility service and at the same 2 time providing the utility the ability to respond to 3 change low characteristics and reduce their cost so 4 they can manage their ability to recover their cost of 5 service. 6 Q. And Mr. Gorman, I want to move to another area 7 I think we're in agreement on, and this is the 8 allocation of the portion of cost distribution mains to 9 customers. And you saw -- you're aware of the proposal 10 by the Company as 25 percent of the cost of 11 distribution mains should be assigned to customers and 12 75 percent on demand. You're aware of that? 13 A. I am. 14 Q. And you're in agreement with that? 15 A. I am. 16 Q. Now, have you also, as part of your review and 17 preparation for testifying, reviewed the expert reports 18 from AARP? 19 A. I have. 20 Q. And you're aware they object to this 21 classification of cost of distribution mains to 22 customers? 23 A. Yes, it's my understanding their primary 24 objection is that it would potentially lead to pricing 25 impacts that they would have concerns with.
Page 643 1 assignment of costs based on class, and in your opinion 2 it provides a reasonable and accurate price signal and 3 also provides customers the incentive to manage 4 consumption. I took that from your direct testimony. 5 But do you believe the rates proposal and allocation 6 provides reasonable, accurate price signals to 7 customers and incentives for these customers to manage 8 their consumption? 9 A. Yes. In order to design a rate that gives an 10 effective, an economic price signal to customers, it 11 requires both the allocation of cost across rate 12 classes in line with the utility's cost of serving 13 those classes. And second, designing rates that 14 provides firm economic incentives to tell customers how 15 they can modify their consumption that allows them to 16 reduce their bills but at the same time allows the 17 utility to reduce its cost. Consequently, the utility 18 doesn't have to increase price because some customers 19 act more constructively in making conservation related 20 investments, but in doing so, they don't have the 21 effect of giving the utility the opportunity to reduce 22 their cost in response to those changed consumption 23 patterns. 24 So effective price signals I think is critical 25 both in terms of providing customers a real opportunity	Page 645 1 Q. And one of the things you indicated in your 2 direct testimony that this allocation of a portion of 3 distribution mains to customers most accurately 4 reflects how the utility designs its systems and best 5 reflects cost causation on a utility system. Is that 6 your testimony? 7 A. It is. 8 Q. Can you just explain briefly to the Commission 9 why Montana-Dakota's 25 percent allocation of 10 distribution mains to customers is the appropriate 11 method? 12 A. Well, the idea in allocating cost is that you 13 identify the low characteristics and customer 14 characteristics that the utility designs the system to 15 serve. And with the distribution pipe, they have to 16 both select a pipe that can carry adequate capacity to 17 meet the peak day demands of the customers on the 18 system. But based on the geographic spread of 19 customers on its system, they also have to design the 20 distribution system with an adequate length of pipe so 21 they can connect all customers to the system. 22 So the cost of the distribution system is 23 impacted by the size of the pipe and the length of the 24 pipe needed to connect customers to the system. So 25 that length of pipe is -- follows the classification of

Transcript of Proceedings Volume 3

6/1/2018

Page 6 (646 - 649)

Page 646 1 number of customers on the system and is impacted by 2 number of customers you have and the location of the 3 customers you have in determining how much distribution 4 costs you need to incur to provide service to those 5 customers. 6 Q. Now Mr. Gorman, I want to move to another topic 7 that I think we're in agreement on. And you said the 8 rate design of the Company with respect to the classes 9 you generally agree with? 10 A. Yes. 11 Q. One of those is with respect to the residential 12 class, Montana-Dakota is proposing to continue a 13 straight fixed variable rate design where the rates are 14 allocated to customers through a basic service charge. 15 You're aware of that? 16 A. For residential? 17 Q. For residential. 18 A. Yes. 19 Q. And you have no concerns with this rate design? 20 A. Well, I mean, a straight fixed variable rate 21 design has the effect of stabilizing revenue 22 collections for utilities. So from a credit 23 standpoint, it is a positive rate design. You know, 24 the detriment to it and some of the advocates on behalf 25 of residential customers are concerned about the impact	Page 648 1 Q. And that's showing the average authorized 2 return on equity for utilities over a period of 11 3 years; is that correct? 4 A. That is. 5 Q. And the 2017 average return on equity for 6 public utilities, taking out the one high outlier in 7 Alaska, you determined to be 9.61 percent? 8 A. Correct. 9 Q. And if we included all of them including 10 Alaska, it would be the 9.75 that we see on the right 11 side? 12 A. Yes. 13 Q. Okay. And you're aware that Montana-Dakota's 14 current authorized return on equity is 9.5 percent? 15 A. You know, I didn't confirm that last night, but 16 I believe that's correct. 17 Q. Okay. Just to be clear, from the years you 18 report, from 2006 to 2017, not a single year has the 19 average return on equity ever dipped below 9.5 percent? 20 A. Well, on the average that's true. But there 21 are a significant number of individual observations 22 where the authorized return on equity is below the 23 average. 24 Q. Certainly. But my question was at no point has 25 the average return on equity -- authorized return on
Page 647 1 on smaller and lower income customers, and that's a 2 valid concern. But the benefit is pretty clear is it 3 stabilizes revenue collection by the utility. 4 Q. And you're not here objecting to that today? 5 A. I haven't really commented on residential rate 6 design, but I have not objected to it. 7 Q. Okay. And you're aware this -- are you aware 8 that this design was adopted by this Commission in 2015 9 natural gas rate case? 10 A. I didn't look at that specifically, but it's my 11 understanding that the rate design and the cost of 12 service principles largely reflect that straight fixed 13 variable structure. 14 Q. Okay. 15 A. I think the credit rating of the utility 16 largely reflects reasonably stable revenue collections 17 also. 18 Q. Now Mr. Gorman, I want to turn to some topics 19 that I don't think we're in agreement on, and that's 20 the requested rate of a return on equity. I want to 21 turn to your direct testimony on page 11. 22 A. I'm there. 23 Q. And the -- you include a graph or chart, Figure 24 1, in your direct testimony, correct? 25 A. I do.	Page 649 1 equity in your table ever dipped below 9.5 percent? 2 A. I agree with that. 3 Q. Okay. Now, one of the things you talked about 4 was the credit rating for various utilities. And 5 that's a factor you used in your analysis, correct? 6 A. It is, yes. 7 Q. Okay. And I believe in your direct testimony 8 that 66 percent of gas utilities have a credit rating 9 of A minus or above? 10 A. Yes, that sounds -- that is correct. 11 Q. And you're aware in this case MDU's credit 12 rating is a triple B plus? 13 A. Yes. 14 Q. So MDU's credit rating is in the bottom third 15 of gas utilities? 16 A. MDU Resources' credit rating is triple B plus, 17 and that's probably consistent with the industry median 18 bond rating. 19 Q. Well, you would agree at least with respect to 20 MDU Resources, their credit rating classifies it as 21 more risky than the majority of gas utilities? 22 A. The parent company, that is correct, MDU 23 Resources. 24 Q. Now, I want to talk to you, Mr. Gorman, 25 about -- and this is I think an issue, again, that I

Transcript of Proceedings Volume 3

6/1/2018

Page 7 (650 - 653)

Page 650 1 think we agree on. But in your -- in forming your ROE 2 analysis, you had to come up with a group of proxy 3 companies, correct? 4 A. Correct. 5 Q. And in page 27 of your direct testimony, you 6 talk about the proxy companies that you used. And am I 7 correct the proxy companies you selected for your 8 analysis were the same with -- as Dr. Gaske's and 9 Montana-Dakota's with one exception; is that correct? 10 A. It is. 11 Q. And you excluded South Jersey Industries 12 because on October of 2017 it entered into a purchase 13 agreement with another gas business? 14 A. Yes. 15 Q. And that was after Dr. Gaske had originally 16 filed his testimony? 17 A. I believe so, yes. 18 Q. Okay. But otherwise this proxy group that was 19 selected by the Company, with that one exclusion 20 because of the financial merger that can have effect, 21 you agree with the Company that's the appropriate group 22 we have to look at? 23 A. That's what I relied on, yes, because I found 24 it to be a reasonable proxy group for MDU. 25 Q. And why -- can you just explain to this	Page 652 1 Q. And again, that's certainly higher than what 2 MDU Resources' bond rating is? 3 A. One notch, yes. 4 Q. Yeah. Now, one of the things, Mr. Gorman, that 5 -- one of the sources of information -- and you rely on 6 a number of sources of information to perform your ROE 7 analysis, correct? 8 A. I did. 9 Q. And one of the sources of information you 10 relied on was data provided by Value Line? 11 A. Correct. 12 Q. Okay. You also rely on data from Blue Chip 13 Financial Forecast? 14 A. I did. 15 Q. And you find both Value Line and Blue Chip 16 Financial to be reliable sources of information? 17 A. I do, but not in and of themselves. But they 18 are part of the information that's available to the 19 marketplace in order to estimate what the market 20 demands are for assuming the risk of investment of the 21 utility company. That information is widely 22 disseminated to the market. It's widely used by the 23 market. And it's appropriate for consideration in a 24 rate of return study. 25 Q. Okay. And again, one of the -- you considered
Page 651 1 Commission why this is the reasonable group to 2 consider -- that we have to consider in this case? 3 A. Well, I went through the reasons why after 4 review of Dr. Gaske's proxy group why I found it was an 5 appropriate proxy group for MDU. That's because the 6 bond rating of the proxy group is reasonably comparable 7 to MDU and it has a reasonable capital structure mix as 8 does MDU, and they're reasonably consistent in the same 9 industry as MDU. 10 In my experience in a rate of return studies, 11 and I've been doing this for a very long time, is as 12 long as you have a reasonable number of companies in 13 the proxy group in the same industry and they're 14 reasonably have credit risk metrics that are reasonably 15 in line with the subject company, than the proxy group 16 is really not going to skew the estimated return on 17 equity. So I generally do try to align a proxy group 18 to be reflective of what the company proposes, unless I 19 found what the company proposes is simply out of line 20 and unreasonable. In this case, I thought it was 21 reasonable. 22 Q. Okay. Now, the proxy group that you identified 23 has a higher average bond rating -- or has an average 24 bond rating of A minus; is that correct? 25 A. Yes.	Page 653 1 the risk of the Company in your analysis, correct? 2 A. I did. 3 Q. And one of the factors in considering a risk 4 analysis for Montana-Dakota in this case is the Company 5 size is a factor? 6 A. Well, the investment risk of the Company is the 7 subject of the determination of fair compensation. And 8 any factor that impacts the risk of the Company would 9 be considered in the analysis. 10 For a regulated utility company with a 11 franchise or monopolistic service territory, size risk 12 is not the same as the risk of a small nonregulated 13 company. But it is a factor that I did consider. 14 Q. Now, you also, in performing your analysis, you 15 looked at business risk, financial risk, and regulatory 16 risk? 17 A. Regulatory risk is a component of business 18 risk, but, yes, I did consider all those. 19 Q. Okay. Now, one area of disagreement, I 20 believe, is in performing your analysis, you did not 21 use a flotation cost adjustment; is that correct? 22 A. The Company didn't have any proof that it 23 actually had incurred flotation costs, so I didn't 24 include a cost that the Company hadn't proved that it 25 incurred to be paid by customers.

Page 654 1 Q. And you're aware Dr. Gaske, on behalf of the 2 Company, used a flotation cost? 3 A. He approximated a flotation cost based on other 4 companies' costs. 5 Q. And you're aware Dr. Griffing, on behalf of 6 Advocacy Staff used a flotation cost? 7 A. I believe that's true. 8 Q. Okay. One of the things you did in your 9 analysis, Mr. Gorman, is on page 40 of your direct 10 testimony, you charted various sources with respect to 11 inflation in 2017; is that correct? 12 A. Overall GDP, both real GDP and inflation, that 13 is correct. 14 Q. And your range of inflation was that you found 15 by the published sources was from 1.9 to 2.1 percent? 16 A. Yes. 17 MR. SANDERSON: Mr. Gorman, I have no 18 further questions. Thank you for your time. 19 THE WITNESS: Thank you. 20 THE COURT: Mr. Armstrong. 21 MR. ARMSTRONG: No questions. 22 THE COURT: Mr. Coffman? 23 MR. COFFMAN: Yes, sir. Thank you. 24 25 CROSS-EXAMINATION	Page 656 1 may not be able to pay, you know, hide fixed rate for 2 utility service, and will that increase uncollectible 3 cost to the utility. And if so, how is that 4 uncollectible cost going to be passed back to other 5 customers, or whether or not there's an opportunity to 6 accomplish most of the revenue stability objectives the 7 utility's attempting to produce with that rate design 8 while at the same time minimizing uncollectible cost 9 and thereby minimizing cost that could be passed back 10 to other customers. So I think that's kind of the 11 tradeoff. 12 To the extent a fixed charge for smaller 13 customers has the effect of imposing price burdens on 14 certain customers that simply can't afford to pay those 15 prices, that will have a consequence by increasing 16 uncollectible costs and maybe reducing number of 17 customers if they should get disconnected. But any 18 uncollectible cost incurred by the utility eventually 19 is going to be passed back to the remaining customers. 20 So generally speaking, and I'm not really an 21 advocate on residential rate design, but what I 22 typically see is a movement towards straight fixed 23 variable rate design but with the consideration of what 24 the impact on small low-income users will be on that 25 rate design and kind of a balance methodology that
Page 655 1 BY MR. COFFMAN: 2 Q. Good morning, Mr. Gorman. 3 A. Good morning. 4 Q. I'm going to ask you about a couple of things 5 that you were questioned by Company counsel. Mr. 6 Sanderson asked you about the residential rate design 7 and the fact that the Company is proposing to put 100 8 percent of gas delivery costs into a flat customer 9 charge. I know that you have -- you have experience 10 around the country in various jurisdictions, and I know 11 you don't often get into the rate design within the 12 residential class, but could you state whether you 13 believe that that's a mainstream approach or whether 14 it's more common and appropriate -- or found to be 15 appropriate by Commissions to have some volumetric 16 component as well as a fixed component in the 17 residential rates? 18 A. Well, I believe the question dealt with whether 19 or not straight fixed variable rate design has benefits 20 to the system. And as I pointed out, I think there are 21 benefits certainly from revenue stability standpoint, 22 but there are detriments that could impact small 23 low-income and very small users. You know, the 24 tradeoff with that is whether or not there's going to 25 be a need for other customers to support customers who	Page 657 1 achieves the revenue stability objectives of the 2 utility while at the same time minimizing price impacts 3 on customers, particularly those customers that can't 4 afford to pay the bill. 5 Q. Wouldn't you agree with me that most 6 jurisdictions reach a compromise amongst those 7 considerations whereby at least some component of the 8 residential delivery rate is a volumetric usage charge? 9 A. I haven't specifically looked at that, but 10 if -- my sense is that's an accurate statement, but I 11 haven't confirmed it. 12 Q. Is there -- isn't there another consideration 13 or detriment to going 100 percent towards a flat fee in 14 that it is reducing the incentive for conservation and 15 energy efficiency? 16 A. Well, again, conservation energy efficiency has 17 to have the effect of changed consumption patterns by 18 the customer that results in reduced cost to the 19 utility. If -- and for a lot of smaller customers, 20 changed consumption patterns can't really -- the 21 utility can't really respond to that by reducing their 22 cost. So it's a lot more tricky question when we're 23 talking about relatively small residential customers 24 because most of the cost of serving them is fixed. So 25 if they change their consumption pattern to reduce the

Page 658 1 payment to the utility, that generally means the 2 utility has costs of providing service to that customer 3 which are not recovered from that customer. 4 So conservation really should be thought of in 5 terms of providing price signals to customers, allow 6 customers to change consumption patterns to reduce 7 their bill, but at the same times those changed 8 consumption patterns allows the utility to reduce their 9 cost of providing service. 10 Q. I want to ask you another -- a question about 11 something that you didn't put in your pre-filed 12 testimony, and that relates to the proposal by this gas 13 company for what we call the SSIP mechanism. It's a 14 tracker or surcharge that would operate outside of the 15 full audit of a rate case. And my question to you is 16 I'm sure that you've experienced these mechanisms and 17 you've seen them proposed and you've seen them in 18 operation. What has -- what is the relationship 19 between this type of regulatory mechanism and the 20 business risk of the utility? 21 A. Well, any time a regulatory mechanism that is 22 approved that allows for a rate adjustment outside of a 23 rate case has the effect of mitigating the utility's 24 investment risk kind of mitigates it by not eliminating 25 it but instead by transferring it from investors to the	Page 660 1 reduces risk, then that should be -- whoever takes the 2 risk should be rewarded for it, and if the risk is 3 shifted to customers, customers take the risk and they 4 should be rewarded for it by reduced rates. The 5 utility investors has less risk, so that should be 6 reflected in a lower return on equity. 7 Q. So have you reviewed at all the testimony in 8 this case about the SSIP mechanism? 9 A. I reviewed it at the outset of the case, but I 10 didn't respond to it. 11 Q. Okay. What is your level of experience with 12 similar type mechanisms in other jurisdictions? 13 A. Regulatory mechanisms is something we have a 14 significant experience with. 15 Q. And have you witnessed similar mechanisms 16 leading to rates that are unfair to consumers? 17 A. In our judgment, yes. Typically with 18 regulatory mechanisms that allows for rate adjustments 19 outside of a rate case, we see Commission requirements 20 that if the regulatory mechanism is implemented it 21 would require the utility to file periodic rate cases. 22 So the line items increase in charges would 23 periodically be reviewed by a complete assessment of 24 the overall cost of service in relationship to total 25 revenues collected. We find that to be one way of
Page 659 1 customer. So those improved regulatory mechanisms 2 again work toward stabilizing revenue collections that 3 are in line with cost of service, and that reduces 4 investment risk by the utility. 5 Q. So you would agree with me that business risk 6 is a zero sum game. If you're reducing the business 7 risk to the utility through these type of mechanisms, 8 you're simply transferring it to consumers? 9 A. I'd say certainly through regulatory mechanisms 10 that's an accurate statement. There are certain 11 business risks that I don't think can be shed by 12 other -- you know, customer's pricing risk protecting 13 service from a utility or utility's risk of providing 14 service to customers. 15 Q. So if the -- if this Commission is considering 16 an extraordinary mechanism of recovery for some 17 infrastructure costs, would you advise them to consider 18 that in a vacuum or to consider that as it relates to 19 the rate of return since the regulatory risk is part of 20 the business risk, which is part of the consideration 21 of the allowed rate of return? 22 A. Well, if it's shown to have a significant 23 impact on the operating risk of the utility, I would. 24 I mean, I haven't specifically looked at it to conclude 25 that it does. But if the Commission finds that it	Page 661 1 maintaining some balance in the rate making process for 2 the utility and its customers. 3 Q. And so if there was a -- so if that type of 4 consumer protection was being considered, what would 5 you say would be a reasonable frequency for requiring a 6 full rate case audit? 7 A. Well, again, I haven't looked at this case 8 specifically, but generally when we do look at it, we 9 request the Commission and or legislative bodies to 10 require rate case filings at least every three to four 11 years. 12 Q. Have you seen such mechanisms contribute or to 13 result in over earnings for utilities? 14 MAJOR UNSICKER: Your Honor, I object at 15 this point. I think this is out of the scope of Mr. 16 Gorman's testimony. He didn't file testimony on the 17 SSIP. I know he has experience with it and did give 18 him some room to talk about it, but . . . 19 THE COURT: Overruled. You can answer. 20 BY MR. COFFMAN: 21 Q. Again, I'm talking about allowed rate of return 22 and actual rate of return. Have these type of 23 mechanisms had an impact on that? 24 A. Depending on how it's structured. If a 25 regulatory mechanism allows for rate increases based on

Page 662 1 capital investment outside the rate case is it 2 constructed in a way that kind of recognizes change in 3 rate base that are recovered in base rates during the 4 period the regulatory mechanism is in effect, the 5 surcharge is in effect, then it can result in charges 6 from the surcharge and base rates that provides more -- 7 a higher rate of return on total capital investment 8 than what the Commission found to be appropriate in the 9 last rate case. So, yes, it can result in the 10 opportunity or the likelihood that a utility would earn 11 more than what the Commission found to be a fair rate 12 of return. 13 Q. And is that primarily because other factors are 14 not being taken into account at the same time as -- 15 A. It's a risk of having a single line item or a 16 few line items which are used to adjust rates to 17 customers without considering all the other factors. 18 MR. COFFMAN: That's all I have. Thank 19 you so much. 20 THE COURT: Okay. Ms. Jeffcoat-Sacco. 21 MS. JEFFCOAT-SACCO: We have no questions. 22 Thank you. 23 THE COURT: Okay. Commissioners. 24 Commissioner Kroshus. 25	Page 664 1 at risk of fully recovering gas cost. Because gas 2 systems are regarded as a moderate technology 3 investment, they're not complicated to safely operate, 4 and the technology around new gas delivery 5 infrastructure is reasonably safe with adequate 6 oversight, monitoring oversight to ensure that the 7 public is protected in the operation of the gas system. 8 So if all of those factors are managed 9 effectively, then I think operating a gas delivery 10 system is a moderate investment risk type enterprise. 11 Q. And based on your testimony, you have done this 12 before? You've been before Commissions? 13 A. Yeah, I've been testifying before Commissions 14 for about 30 years now. Most of my experience is with 15 electric and gas utilities, but I have quite a bit of 16 experience in water and waste water also. 17 Q. Did your analysis or methodology for this case, 18 would you say it was -- that it was consistent -- has 19 been consistent with how you've looked at other cases 20 in the past? 21 A. Yeah, I'd say with respect to all aspects of my 22 testimony, cost of service, revenue spread and rate of 23 return measurement, yes. 24 Q. Do you recall an instance where a lower return 25 on equity resulted in -- hurt the credit standing of
Page 663 1 EXAMINATION 2 BY COMMISSIONER KROSHUS: 3 Q. Okay. Just to verify or to confirm, you had 4 said that a rate of return in the 8.8 to 9.3 range, 5 which is I believe what is your recommending, would not 6 adversely impact ratings, credit rating, for the 7 utility? 8 A. I believe a return on equity within that range 9 would produce credit metrics that will support the bond 10 rating of this utility, yes. 11 Q. How does a person, as a Commissioner or just in 12 general, how do you get your arms around the fact that 13 the gas division is a very small part of Montana-Dakota 14 Resources which the triple B plus rating continues to 15 be cited, but do you think it's detrimental to that 16 rating, the gas division? Do you think it's neutral? 17 Or do you think it is an asset in terms of improving 18 the rating? 19 A. Really, in this case I think -- I don't see the 20 gas division creating risk for the overall enterprise. 21 It's out of line with the risk of the overall 22 enterprise. Gas utilities typically are fixed 23 investment type infrastructure companies. The 24 commodity is kind of a pass through cost. As long as 25 that's prudently incurred, the utility is typically not	Page 665 1 the utility that you made that recommendation for? 2 A. Well, my recommendation has -- range anyway -- 3 has largely been aligned with what a lot of Commissions 4 have found to be appropriate. Usually it's toward the 5 high end of my range. But in -- particularly in the 6 last ten years since the financial crisis, the 7 authorized returns on equity for -- where the 8 Commission has authorized a return on equity within my 9 recommended range, there has not been a detrimental 10 impact on the utility's credit standing, unless there 11 were external factors such as imprudence disallowances 12 or major construction programs that were not produced 13 effectively and that resulted in disallowances. 14 But for traditional rate cases without, you 15 know, significant issues within the rate case, my 16 return on equity has been adequate to support the 17 credit standing of the utility. 18 Q. Okay. Thank you. 19 A. Within my recommended range. 20 COMMISSIONER KROSHUS: Thank you. No 21 other questions. 22 THE COURT: Chairman Christmann. 23 EXAMINATION 24 BY CHAIRMAN CHRISTMANN: 25

Transcript of Proceedings Volume 3

6/1/2018

Page 11 (666 - 669)

Page 666 1 Q. Did you review Mr. Griffing's direct testimony? 2 A. I have, yes. 3 Q. And that was filed December 18th with us, and 4 your direct testimony was filed December 18th; does 5 that sound right? 6 A. Yes, that's correct. 7 Q. Okay. And did you review Mr. Griffing's 8 rebuttal testimony that was filed in early May? 9 A. I did, yes. 10 Q. Okay. So I don't want to characterize -- I 11 wish you were coming after him for this line of 12 questioning. But would you agree that between -- from 13 his direct testimony, he was calling for 8.91 percent 14 ROE, and then the rebuttal testimony increased it to 15 9.23? 16 A. Subject to check, that sounds correct. 17 Q. Okay. So your 9.1 recommendation came the same 18 time as his 8.91. Do you understand why he increased 19 his by 32 basis points in the next five months? And 20 whatever that was, does that cause you any concern that 21 maybe your 9.1 should be increased? 22 A. I have -- did not update my rate of return 23 study for this case, but I did for probably a dozen 24 other cases that were filed after December of this 25 year. And my recommendation in this case is reasonably	Page 668 1 the market. If you recall back in 2008 there was a 2 major market downturn that almost resulted in the 3 bankruptcy of the U.S. banking system, particularly 4 investment banking system. 5 At that point, the market's appetite for 6 low-risk stable investments jumped dramatically. 7 That's when we saw treasury bond yields go from five to 8 six percent down to two percent. And we saw increasing 9 risk investments returns also respond to that. Utility 10 bond yields went from five percent down to the three 11 percent area about the same time. Utility stock prices 12 started out relatively low but increased over time to 13 the point where now they have dividend yields in, you 14 know, the three and a half four percent yield area 15 where before they might have been in the five percent 16 yield area. 17 And as you look at more risky securities -- and 18 the reason a utility is regarded as relatively stable 19 low-risk security is for two reasons. First, over 50 20 percent of the extent of the annual return is produced 21 through dividend payment. Dividend payment returns are 22 very stable and predictable. So there's -- that 23 mitigates the risk of not realizing your expected 24 return by making the investment. The other component 25 is the growth component, and utility capital
Page 667 1 aligned with the recommendation I made for other 2 utility companies with similar bond ratings and risk 3 characteristics. So I'm confident that this study 4 reflects current capital market costs for this utility. 5 And with respect to the update by the Staff 6 witness, you know, his recommendation consistently fell 7 within my recommended range. So at least his point 8 estimate I found to be reasonable. 9 CHAIRMAN CHRISTMANN: Okay. No other 10 questions. Thank you. 11 THE COURT: Commissioner Fedorchak. 12 13 EXAMINATION 14 BY COMMISSIONER FEDORCHAK: 15 Q. Just two questions for you. You indicate in 16 your direct testimony that the utility security 17 evaluations today are very strong, robust, relative to 18 the 12 years indicating that investors are, you know, 19 eager or willing to invest in there. You make that 20 statement and cite sources, but you don't necessarily 21 point to why that is. Could you just lay out some of 22 the reasons why the utilities are appealing in today's 23 financial markets? 24 A. I think over the last ten years there's been an 25 appetite for relatively low-risk stable investments by	Page 669 1 investments have been so robust over the last ten years 2 that rate bases have been growing so fast that the 3 growth aspect of utility earnings and dividends have 4 been very strong in the last ten years relative to the 5 past 30 years. And the outlook for continued growth in 6 the utility rate base growth is still -- it's slowing 7 relative to where it was in the last ten years, but 8 it's still relatively robust compared to where it's 9 been over the long historical period. 10 So the stability of the annual return for 11 utility stock investment makes it a relatively low-risk 12 investment. And the ability of the utility to set 13 rates based on cost of service means that those capital 14 investments they're making are not as risky as a 15 capital investment that might be made by a nonregulated 16 company that would be relying on market prices and 17 market demands for their products. So the demand for 18 the utility service and the pricing utility services 19 are stable than it is for nonregulated company. 20 Q. Very good. Thank you. You hit on one of the 21 areas that I was curious to see if you would. 22 Then my other question is I don't think you -- 23 have you been here the whole time? 24 A. I have not. 25 Q. No, you just came for today, correct?

Page 670 1 A. That is correct. 2 Q. So in the Company testimony, their witness 3 spent a fair amount of time talking about how they are 4 a riskier company in the whole utility spectrum and 5 they should get a higher ROE because of that. And so 6 you don't seem to acknowledge that in your testimony, 7 either your pre-filed or in your comments today. So 8 I'd like you to comment on whether you think it is 9 appropriate to give them a pretty significantly higher 10 ROE because of that risk, the whole factor of risk for 11 them. 12 A. Well, I think it's appropriate to give a return 13 on equity that reflects the actual measurable and 14 observable risk of the utility, but I think what's 15 important rather than listening to the Company rate of 16 return witness or a stakeholder rate of return witness, 17 it's more reliable to go to what the market 18 participants are telling us about the investment risk 19 of the utility. And the observable evidence for 20 independent market participants in measuring the risk 21 of this utility is the bond rating. The bond rating of 22 this utility, MDU Resources, is triple B plus. That's 23 consistent with an industry median bond rating and is 24 reasonably consistent with the proxy group that I used 25 and Dr. Gaske used to measure a fair return on equity	Page 672 1 small utility company can attract competent management. 2 Utility management is very good at managing capital and 3 very good at managing assets, even small companies are. 4 So there's not that distinction of big and small from a 5 management perspective. There's also not a distinction 6 of big and small from a capital attraction perspective. 7 If a small utility has a triple B plus bond rating, it 8 reasonably has the same access to capital as a large 9 company with the same bond rating. 10 So the distinction of small company versus 11 large company is not as -- it's a meaningful factor in 12 a nonregulated industry, but it's not as meaningful of 13 a factor for regulated utilities. It's a relevant 14 factor, but not as significant as it is for 15 nonregulated companies. 16 COMMISSIONER FEDORCHAK: Thank you. 17 That's all my questions. 18 THE COURT: Okay. Major, any redirect? 19 MAJOR UNSICKER: Thank you, sir. 20 REDIRECT EXAMINATION 21 BY MAJOR UNSICKER: 22 Q. Just to follow up on what the Commissioner was 23 asking there, do you think MDU's risk in this case 24 required an elevated ROE such as the one that Mr. Gaske 25
Page 671 1 in this proceeding. 2 So independent market participants don't agree 3 with Mr. Gaske that this is an above average risk 4 utility company. I don't either. Largely because it 5 is a regulated utility company, it has a service area 6 that it provides service to, it sets rates to recover 7 its cost of service, and it does so in a way that 8 provides a real opportunity to earn the authorized rate 9 of return this Commission finds to be appropriate for 10 setting rates in this jurisdiction and its other 11 jurisdictions. 12 So it is smaller than other utility companies, 13 but the small company risk that academics study and 14 then that Duff & Phelps studies in their publications 15 don't consider the unique nature of the utility 16 industry when they generally find that small companies 17 have greater risk than large companies. The reason 18 that is, is because large company can attract more 19 efficient -- more talented management, it has access to 20 better capital, it has a bigger market, it may have 21 diversity of product lines across various geographic 22 regions which stabilizes its revenue, allows it to 23 recover its cost and meet investors' profit 24 expectations. 25 Utility companies are a unique animal. Even a	Page 673 1 has proposed? 2 A. I do not. I believe MDU's risk is reasonably 3 in line with the proxy group, and I think a fair return 4 on equity for MDU in this case would be based on 5 market-based studies of that proxy group. 6 Q. And with respect to your direct testimony at 7 page 11, the graph there, you had indicated when you 8 removed the Alaska outlier, the industry average is a 9 9.61? 10 A. Yes. 11 Q. And I think you said -- I just want to 12 clarify -- there are in fact companies that are below 13 9.5, correct? 14 A. Yeah, generally speaking the authorized return 15 on equity average is skewed by some jurisdictions that 16 consistently award very high returns on equity, you 17 know, like Michigan and Wisconsin and Florida. Some of 18 those jurisdictions don't necessarily have better 19 credit ratings for the utilities or better rates for 20 the utilities, but the Commission just has consistently 21 awarded above industry average authorized returns on 22 equity. Most of the utility authorized returns on 23 equity I believe are slightly below 9.6, probably in 24 the 9.3 to 9.6 area. But the average is skewed up 25 because of some jurisdictions.

Transcript of Proceedings Volume 3

6/1/2018

Page 13 (674 - 677)

Page 674 1 Q. Thank you. And one last area. I know that the 2 topic of flotation cost had come out. Can you explain 3 why you didn't use that in coming up with your 4 recommended ROE? 5 A. Yeah, flotation costs are a very specific and 6 legitimate cost for a utility company, but they can be 7 identified. They can be measured, they can be shown to 8 be reasonable. And if the utility identifies their 9 flotation cost shows that they were reasonable, then 10 it's appropriate to include them in rates. Essentially 11 it's a cost that can be properly accounted for, it 12 should be known and measurable. It's not different 13 than a lot of other cost of service items. 14 By approximating the cost of issuing stock to 15 the public, you're not identifying whether or not the 16 utility actually did incur stock -- issuing stock to 17 the public and whether or not that cost was reasonable. 18 So the reason I didn't include it in my return on 19 equity study is because the Company didn't identify 20 whether or not it has actually incurred common stock 21 issuance cost, and how much of those costs should be 22 allocated to this jurisdiction, and whether or not 23 those costs were reasonable. So it's a non-known and 24 measurable cost, and therefore I did not include it in 25 my recommendation.	Page 676 1 as I sit here. 2 Q. Have you done any studies on Montana-Dakota's 3 use of the rider program and its impact that it has on 4 attracting capital or the impact it has on the 9.65 5 authorized return on equity? 6 A. No, but I know rider mechanisms such as that 7 you're describing would be considered by credit 8 analysts in assigning a bond rating. So it would be a 9 factor that would be considered by these independent 10 market participants in assessing the risk of MDU. 11 Q. Well, you're heading right into the next area I 12 want to talk to you about, and that's the bond rating. 13 I believe in response to Commissioner Kroshus's 14 questions and Commissioner Fedorchak's questions, you 15 said bond rating is the best measure to establish risk? 16 A. It's an independent market participant's 17 assessment of the investment risk of the utility. 18 Q. Okay. Now, and just so we're clear, the 19 current gas authorized ROE in the country is 9.61 20 percent, according to your research? 21 A. The average is. 22 Q. The average, yes. Okay. Now, I believe you've 23 already said compared to the industry average, 24 Montana-Dakota's utility bond rating of a triple B plus 25 is in the bottom one-third of companies?
Page 675 1 Q. Do you agree with the way that Dr. Gaske did it 2 in his recommended ROE? 3 A. I do not, and that's why I opposed it because 4 it's not a utility specific cost the way he did it. 5 MAJOR UNSICKER: Thank you, sir. I have 6 no further questions. 7 THE COURT: Mr. Sanderson? 8 MR. SANDERSON: Thank you, Judge. 9 10 RECROSS-EXAMINATION 11 BY MR. SANDERSON: 12 Q. Now, I want to start with a few questions, Mr. 13 Gorman. In response to Mr. Coffman, he asked you about 14 the SSIP mechanism or similar recovery mechanisms 15 outside the rate cases. Do you recall those questions? 16 A. I do. 17 Q. And talking about the impact. Well, you're 18 aware -- or are you aware that North Dakota electric 19 utilities have riders or mechanisms in place for 20 recovering certain costs outside of a rate case? 21 A. I believe that's true, yes. 22 Q. Okay. Now, are you also aware that 23 Montana-Dakota's North Dakota Electric return on equity 24 is 9.65 percent? 25 A. I accept that subject to check. I do not know	Page 677 1 A. No, I said the triple B plus is probably at the 2 median of the industry. 3 Q. Well, we went through this already. And in 4 your direct testimony, 66 percent of gas utilities have 5 a credit rating of A minus or above you say on direct, 6 page 12. 7 A. I do, yes. 8 Q. Okay. So Montana-Dakota's triple B plus would 9 therefore be in the bottom one-third with respect to 10 credit rating of gas utilities, correct? 11 A. For gas utilities, that's right. If you 12 combine electric and gas together, it's probably at the 13 median. 14 Q. Yeah, if we combined Montana-Dakota's electric 15 and gas authorized ROE, it would be above 9.5, wouldn't 16 it? 17 A. Not if they necessarily were in for a rate case 18 right now when we were measuring a current cost of 19 equity. 20 Q. And I'll rephrase my question. If we currently 21 combine those, Montana-Dakota's authorized ROE between 22 gas and electric would be between the 9.65 for gas and 23 the -- or the 9.65 for electric and the 9.5 for gas? 24 A. If you're looking at what was last authorized, 25 that would be accurate.

Transcript of Proceedings Volume 3

6/1/2018

Page 14 (678 - 681)

Page 678

1 Q. Correct. But what we're just focusing on here,
2 Mr. Gorman, is gas cases. And when I asked you about
3 the average ROE of 9.61, that's just gas utilities?
4 A. Well, what I'm forcing on here is MDU
5 Resources' investment risk.
6 Q. Certainly. And --
7 A. MDU Resources consists of more than just gas
8 combinations. It is a combined electric and gas
9 utility.
10 Q. Sure. And we'll get there right now then.
11 But -- well, before we get there, just with respect to
12 your proxy companies, five of the seven have a higher
13 bond rating than MDU resources?
14 A. The average of the proxy group is one notch
15 stronger than MDU Resources, correct.
16 Q. So my statement was correct?
17 A. Yes. Well, I mean five of the seven you said?
18 Q. Is that five of the seven have an A minus
19 rating which is higher than Montana-Dakota's.
20 A. I'm turning to the page. It's shown in my
21 Exhibit MPG-2. Four of the six have bond ratings above
22 triple B plus.
23 Q. Okay. Well then four of six would be
24 absolutely consistent with the gas utility and average
25 of 66 percent that have a higher rating?

Page 679

1 A. By one notch, yes.
2 Q. Okay. Now let's get into one of the resources
3 you used for bond rating is Standard & Poor's?
4 A. Yes.
5 Q. Okay.
6 MR. SANDERSON: May I approach the
7 witness, Your Honor?
8 THE COURT: You may.
9 MR. SANDERSON: And may I approach the
10 Commission as well with the exhibit?
11 THE COURT: You may. Is this a new one?
12 MR. SANDERSON: It is.
13 THE COURT: You can go ahead and start to
14 lay the foundation.
15 MR. SANDERSON: Thank you.
16 BY MR. SANDERSON:
17 Q. Mr. Gorman, Standard & Poor's -- well, as an
18 expert in looking at this, Standard & Poor's is a
19 resource you used?
20 A. It is. It's one of the three primary credit
21 rating agencies.
22 Q. Okay. And they -- Standard & Poor's produces
23 credit ratings with respect to companies?
24 A. Correct.
25 Q. And one of the --

Page 680

1 A. In the industry in general.
2 Q. Yeah. And one of the companies they report on
3 is MDU Resources Group?
4 A. That's what this report is.
5 Q. And you've in fact -- have you looked at this
6 specific report?
7 A. From 2011?
8 Q. Yeah.
9 A. It seems like an older report, but I know I've
10 looked at credit reports for MDU Resources.
11 Q. Okay. And that, as an expert, is something you
12 rely on in forming opinions?
13 A. Yeah, look at the credit standing of the
14 utility and what the credit analysts are saying, yes.
15 MR. SANDERSON: Your Honor, at this time
16 we would offer MDU-50.
17 THE COURT: Counsel, any objection?
18 MAJOR UNSICKER: No objection, Your Honor.
19 MR. ARMSTRONG: Your Honor, I have to
20 lodge an objection. I'm not sure the relevance of a
21 2011 Standard & Poor's report at this point.
22 THE COURT: I think you can attack it on
23 that basis after it's admitted. It is what it is. I
24 mean, the foundation is there.
25 MR. ARMSTRONG: Well, I don't object on

Page 681

1 foundation, Your Honor; I object on relevance.
2 THE COURT: I'm going to overrule on
3 relevance. I think the Commission can weigh that.
4 MR. COFFMAN: I don't have a copy of it.
5 I'm not sure if it's the complete study or if it's --
6 MR. SANDERSON: Oh, didn't I give you --
7 MR. COFFMAN: Oh, yeah, you gave it.
8 Sorry. This isn't the entire report, it looks like
9 it's just a summary. So I think I might have an
10 objection based on the completeness.
11 THE COURT: I'm going to allow it for what
12 it is.
13 MAJOR UNSICKER: Do we have another
14 version that's more updated, or is this . . .
15 MR. SANDERSON: Would you like me to
16 respond?
17 THE COURT: Yes.
18 MR. SANDERSON: And I think Mr. Gorman
19 will be able to --
20 BY MR. SANDERSON:
21 Q. They publish these on a regular basis, Mr.
22 Gorman?
23 A. Typically whenever the utility goes to the
24 market for a debt issue they do.
25 Q. Okay. And this was one -- and the date is on

Page 682 1 it, December 20th of 2011? 2 A. It is. 3 Q. Okay. 4 THE COURT: I'm going to admit the 5 exhibit. MDU-50 will be admitted. And counsel, you 6 can -- I'll give you guys a chance to question about 7 it. 8 MR. SANDERSON: Certainly. Thank you, 9 Judge. 10 BY MR. SANDERSON: 11 Q. Mr. Gorman, I want to turn to page 2 of Exhibit 12 50, and specifically the second paragraph. And you see 13 in the second paragraph where it says, "We consider MDU 14 Resources' business risk as satisfactory as defined per 15 our criteria reflecting the diversity of its business 16 operations." 17 You see that? 18 A. I do. 19 Q. "We consider the Company's individual segments 20 as weaker because of their limited scope of 21 operations." 22 A. Yes. So that aspect is reflected in this bond 23 rating. 24 Q. Certainly. And the bond rating is looking at 25 the individual segments. Are you aware of the makeup	Page 684 1 impacted by the nonregulated. 2 Q. Now, one of the things you said in your 3 response to Commissioner Fedorchak was that a company's 4 diversity of product lines can be important in 5 considering risk? 6 A. Yes. The revenue stability from those 7 diversity and product lines, yes. 8 Q. Okay. Do you consider Montana-Dakota's North 9 Dakota Natural Gas operations to have diversity in 10 their product lines? 11 A. Well, they're a regulated enterprise in the 12 regulated operations. So their price -- you know, 13 they're a monopolistic supplier and they do not have 14 diversity, but they do have the ability to set prices 15 based on cost of service. 16 Q. Now, one of the things you indicated that is a 17 factor for determining a company's risk is the 18 regulatory factor, correct? Or the regulatory 19 environment? 20 A. Regulatory practice -- regulatory environment, 21 yes. 22 Q. And you specifically called out Commission 23 awards in Michigan, Wisconsin and Florida. And those 24 Commissions, in your opinion, are awarding what you 25 consider to be higher than normal returns?
Page 683 1 of MDU Resources Group? 2 A. I participated in many rate cases by MDU 3 Utilities, but I didn't specifically look at an outline 4 for it in preparing for this current case. 5 Q. How much of MDU Resources Group is made up of 6 utility companies? 7 A. I think it is becoming more and more regulated 8 utility companies because they've been investing in 9 nonregulated enterprises. 10 Q. And I'll maybe short circuit it. The testimony 11 from the Company was 58 percent of MDU Resources Group 12 is made up of utilities. 13 A. I'll accept that. 14 Q. Okay. So just over half. The other half is 15 nonregulated construction services. Are you aware of 16 that? 17 A. I didn't specifically look at the nonregulated 18 aspect, but I'll accept that subject to check. 19 Q. Okay. But with respect to what Standard & 20 Poor's is indicating, the individual segments of the 21 company are weaker because of their limited scope of 22 operations. That's what this indicates? 23 A. Right. And they also specifically state that 24 the credit rating is supported by the stability of 25 those utility operations and probably detrimentally	Page 685 1 A. Well, it's observable that the authorized 2 returns on equity in those jurisdictions are higher 3 than the industry averages. 4 Q. So the utilities operating in Michigan, 5 Wisconsin and Florida are in a better regulatory 6 environment and are better able to attract capital 7 because the Commissions are giving them higher returns? 8 A. I think you're making a false statement. 9 Q. Okay. 10 A. They are in a regulatory environment where the 11 Commission gives them higher returns on equity, but 12 most of those utilities do not have better bond 13 ratings, therefore it is not accurate to say they have 14 better access to capital. 15 Q. Okay. They have a better regulatory risk 16 because of operating in those jurisdictions where ROE 17 awards are higher? 18 A. Well, I need to look at that specifically. But 19 my guess would be -- in Florida and Wisconsin the 20 regulatory environment is above average, which means 21 it's friendly to investors. In Michigan, I don't think 22 it's above average. Even though they get high returns 23 on equity, there are other decisions the regulatory 24 commissions make which credit rating agencies find 25 concerning. So it's not just return on equity which

Page 686 1 drives the regulatory rating. 2 Q. Have you, as part of your analysis, 3 investigated how the regulatory risk in North Dakota is 4 weighed or analyzed? 5 A. I looked at the overall bond rating, and I did 6 at one point look at the regulatory rating, but I did 7 not look at that in comparing. 8 Q. What is North Dakota's regulatory ranking with 9 respect to regulatory risk? 10 A. I could provide that to you. I don't have that 11 rating with me. 12 Q. Okay. Dr. Gaske's testified -- and I 13 forget the -- he cited the source, but that North 14 Dakota's was slightly above average; is that consistent 15 with your recollection? 16 A. I would accept that. And that's a good rating. 17 That means low risk. 18 Q. So it's slightly better. But it wouldn't be 19 what you would consider Wisconsin or Florida? 20 A. It might be consistent with Wisconsin or 21 Florida. I have to check that. 22 MR. SANDERSON: Mr. Gorman, I have no 23 further questions. Thank you. 24 THE COURT: Mr. Armstrong. 25 MR. ARMSTRONG: No questions.	Page 688 1 costs that are needed to be incurred in order to 2 provide a level of reliability that has benefits to 3 customers as opposed to asking them to pay for a level 4 of liability -- reliability that may not have 5 additional benefits to customers. So there is a 6 balance between cost to customers and the financial 7 integrity that is adequate to support high quality 8 reliable utility service. 9 Q. So even though there may be some lower debt 10 cost related with a higher bond rating, the 11 overwhelming offsetting cost to consumer -- or the cost 12 of attaining that higher bond rating would more than 13 offset that benefit to consumers? 14 A. There would be a higher cost with no measurable 15 benefit. 16 Q. So in the unique world of regulated utilities, 17 should the PSC look more -- look to find a balance with 18 regard to an adequate bond rating? 19 A. I think all regulatory commissions strive to 20 find that balance, yes. And I think it's my 21 understanding, yeah, I'm not a lawyer, but that's the 22 -- the legal standard that I work towards is a rate of 23 return that's fair compensation, maintains financial 24 rating and credit standing but at the lowest possible 25 cost to customers.
Page 687 1 THE COURT: Mr. Coffman? 2 MR. COFFMAN: Yes, just a couple. 3 4 RECROSS-EXAMINATION 5 BY MR. COFFMAN: 6 Q. Mr. Gorman, you've been asked a lot about bond 7 ratings. And I want to ask, you did say that that was 8 a very important consideration for setting rates, but 9 if a utility commission was driving its rate of return 10 decision with the goal in mind of trying to achieve an 11 A bond rating, would that be -- would that be something 12 that came with a cost to consumers? 13 A. It would. Typically, you know, I believe the 14 Hope and Bluefield standard -- from an economic 15 perspective, not a legal standard -- but Hope and 16 Bluefield says there needs to be a balance between 17 financial integrity credit standing and cost to 18 customers. The cost to customers for supporting a very 19 strong bond rating may not be worth the additional 20 benefits the customer gets through service reliability 21 and other aspects that may come with a higher bond 22 rating. 23 Consequently, you know, setting rates to 24 achieve a strong bond rating is not consistent with 25 balancing the interest of asking customers to pay the	Page 689 1 Q. And despite the assertions of Company counsel, 2 would you say that triple B plus is well within the 3 middle or the average or median of what regulated 4 utilities -- 5 A. For combination electric and gas utility 6 companies, it's consistent with industry median. 7 MR. COFFMAN: Okay. Thank you. 8 THE COURT: Commissioner Kroshus has one 9 more question. 10 11 EXAMINATION 12 BY COMMISSIONER KROSHUS: 13 Q. How much weight would you put on a 2011 report 14 given the fact that the markets were considerably 15 different at the time? The Company profile was 16 somewhat different with oil and gas interests, and 17 construction was down, also part of Montana-Dakota 18 Resources. I mean, is this a report that you would 19 look at from 2011 and say we should consider it? 20 A. Well, I think it's almost deceptive it's so 21 old. And I did quote a Standard & Poor's report for 22 MDU Resources in my testimony that was dated in 23 February 2017. That's still relatively old, but it's 24 the most recent report that I could find. 25 Q. So not relevant?

Transcript of Proceedings Volume 3

6/1/2018

Page 17 (690 - 693)

Page 690 1 A. I don't see it to be relevant because it 2 doesn't describe the current investment risk 3 assessment. And the credit rating agencies for this 4 utility is not relevant in measuring the current 5 investment risk in this utility. 6 Q. All right. Thank you. 7 THE COURT: Okay. Thank you, Mr. Gorman. 8 I think we'll take a little break here and come 9 back at quarter to. 10 (A break was taken at 9:38 a.m.) 11 THE COURT: We'll go back on the record. 12 Ten to ten, approximately. 13 Mr. Armstrong, you plan to call your next 14 witness? 15 MR. ARMSTRONG: Yes. Staff calls Marlon 16 Griffing. 17 THE COURT: Okay. Mr. Griffing, would you 18 spell your first and last name for the record, please? 19 THE WITNESS: First off, it's Dr. 20 Griffing. And it's Marlon, M-a-r-l-o-n; Griffing, 21 G-r-i-f-f-i-n-g. 22 THE COURT: And would you raise your right 23 hand, please? 24 25 DR. MARLON GRIFFING,	Page 692 1 A. I have one correction in my surrebuttal, 2 Exhibit 21. The first paragraph under the table -- 3 yeah, first paragraph under the table, you'll notice 4 there's MFG-xx in three places. Those double x's 5 should be replaced by 24, 24 and 25 to correctly 6 identify the exhibits that are sourced there. 7 Q. Thank you. And as of the date of filing your 8 testimony, if I were to ask you the same questions 9 today as are in your direct testimony, would the 10 answers be the same? 11 A. They would be for what was filed. 12 Q. Okay. Thank you. And as part of your job, do 13 you keep up with changes in the market? 14 A. I do. 15 Q. And in doing this, do you continually evaluate 16 how changes in the industry and market may impact your 17 testimony? 18 A. I do. 19 Q. Have you kept up with the market since you 20 filed your surrebuttal testimony in this case? 21 A. Yes. 22 Q. Would that result in any adjustments to your 23 pre-filed testimony? 24 A. It would. This was filed May 4th. And on May 25 8th it was announced in Maryland that Elkton Gas and
Page 691 1 duly sworn, was examined and testifies as follows: 2 3 THE WITNESS: I do. 4 THE COURT: Thank you. Mr. Armstrong. 5 6 DIRECT EXAMINATION 7 BY MR. ARMSTRONG: 8 Q. Thank you, Dr. Griffing. Are you the same Dr. 9 Griffing who submitted direct and surrebuttal testimony 10 in this case that we have marked as PCS Exhibits 22 and 11 23? 12 A. I am. 13 Q. And are your qualifications explained in that 14 testimony? 15 A. They are. 16 Q. How long have you been testifying on return 17 issues such as your testimony in this case? 18 A. My first cost of capital case was in Minnesota 19 in 2004. 20 Q. Okay. Have you had a chance to review your 21 testimony -- review your pre-filed testimony in 22 preparation for the hearing today? 23 A. I have. 24 Q. Are there any just technical changes to your 25 testimony as it was filed?	Page 693 1 the Maryland Consumer Advocate had reached an agreement 2 about the terms of the merger where South Jersey 3 Industries is acquiring Elkton. It's a small company, 4 it's owned by the same parent company as the much 5 larger Elizabethtown Gas that SJI is also acquiring. 6 So on May 8th the agreement was announced. On 7 May 22nd the law judge in Maryland approved the 8 agreement. Now, I had been excluding South Jersey 9 Industries from my comparison group because of the 10 ongoing acquisitions because that can do things to 11 stock prices of companies that are under consideration 12 for acquisition. Well, it's been since October, the 13 announcement of the acquisition, and we see that it's 14 moving forward at the regulatory level. I think this 15 acquisition is close to going through. The other state 16 is going -- where there is ongoing negotiations is New 17 Jersey, and it's looking good there, too. 18 So especially because we only have eight or so 19 gas companies to consider, I brought South Jersey 20 Industries back into my group in some other testimony 21 I'm doing, and that would cause my DCF result ROE to be 22 about 9.50 now. So if I were doing my testimony today, 23 I would say a reasonable range for the Company would be 24 my original -- excuse me, my surrebuttal DCF ROE of 25 9.23, which was my recommendation then, up to 9.50 for

Page 694

1 the Company.

2 Q. And you just listened to Mr. Gorman testify,

3 correct?

4 A. Yes, I did.

5 Q. And Mr. Gorman had a range of I think 8.8 or

6 8.9 to 9.3, correct?

7 A. Correct.

8 Q. And one of the difference between your

9 testimony and Mr. Gorman's testimony, as was pointed

10 out, was a flotation cost factor?

11 A. Correct.

12 Q. And you did apply a flotation cost?

13 A. Yes, I did.

14 Q. Do you have a sense of what the basis points

15 are for that flotation cost factor?

16 A. It's 11 or 12 basis points. It depends on

17 where the rounding is when you go to two digits.

18 Q. I know there's some other differences in the

19 methods that all of you return witnesses testify about,

20 but in terms of the actual number, that flotation cost

21 number is -- puts yours and Mr. Gorman's testimony kind

22 of in the same range; is that fair?

23 A. Yeah.

24 Q. With a rate -- you've got your pre-filed

25 testimony indicates what the rate of return be at 9.23.

Page 695

1 What would the rate of return be at 9.5?

2 A. It would go to 7.29 percent.

3 Q. Moving into a little bit more of the specifics,

4 has the Tax Cuts and Jobs Act had an impact on your

5 recommended ROE?

6 A. It's had a -- since the Tax Cut and Jobs Act

7 was signed December 22nd, I have noticed an increase in

8 prices for all utilities, water and electric as well as

9 gas. If you want to get a sense of the size of those

10 increases, I invite you to go to my MFG-5, which was

11 the average common equity share prices for the

12 companies in the comparison group at that time. The

13 period was, I think, November 6th to December 1st, the

14 four-week period I used. And then go to MFG-22, the

15 common equity share prices in my surrebuttal testimony,

16 which was -- I forget the beginning date in March,

17 somewhere around the 15th or so, but the end date was

18 April 13th. And write down those prices from 5 on to

19 22, and it's a noticeable decline. Every one of them

20 has gone down, some of them by more than ten percent,

21 which is a, in my experience, a very large price change

22 either way over a three to four-month period like that.

23 The price decreases from December to I'll call

24 it March-April would be reflected in the DCF model

25 through the dividend yield component of the equation.

Page 696

1 The prices are the denominator. If the denominator

2 gets smaller, the dividend yield gets larger, all other

3 things equal. And yes, indeed, the dividend yield from

4 my direct went from 2.68 percent on average to 3.02

5 percent on average.

6 Now, I was particularly interested in this

7 because here and in other cases I'm doing, Company

8 witnesses have been saying we've got the Tax Cut and

9 Jobs Act and it's going to do things to our credit

10 rating, to our cash flow mostly because that's been

11 mentioned in the Moody's reports you've seen and in

12 other reports. If that's true, increased risk for the

13 companies should be reflected in decreased prices.

14 Well, about as clean as experiment as you're going to

15 get, we've seen. I had the December prices before the

16 Act became law. Three to four months later after it's

17 had time to percolate through the market, we see price

18 decreases. I say that's the DCF model working as it

19 should reflecting investors' change in the view of the

20 risk of the utilities responding to the Tax Cut and

21 Jobs Act. Therefore, you don't need to do anything

22 else about the TCJA other than what has been done in

23 the model.

24 Q. As the -- so I gather the market has reacted to

25 the TCJA?

Page 697

1 A. Yeah. Now, it's not the only thing, but it's

2 certainly a big factor. And that timing of when I

3 collected my prices right about a month before it

4 became law and then here three months later, it -- it

5 needs some time to work through. There may be

6 overreactions, prices may bounce back a little bit.

7 But that three to four-month period is certainly long

8 enough to capture the TCGA.

9 Q. So from the pre-filed testimony and the

10 testimony before you, there's one area of disagreement

11 with Dr. Gaske, Mr. Gorman and yourself is the

12 flotation cost adjustment?

13 A. Right.

14 Q. Could you explain to us what you do with

15 flotation cost?

16 A. Okay. I accept what Dr. Gaske did to find the

17 flotation cost factor, the 3.60 percent, which is

18 referenced in my DCF exhibits respectively. And then

19 what you do with flotation costs, you treat them as an

20 expense that's legitimate for the Company to recover.

21 An analogous expense is the cost of issuing a

22 bond. Those are recoverable as well. Why don't we do

23 it the same way as you do with bonds as you do for

24 equity? Well, bonds have maturity. You get the

25 expense, you amortize it over the 30 years, say, of the

Transcript of Proceedings Volume 3

6/1/2018

Page 19 (698 - 701)

Page 698 1 bond, and you get the expense recovered over that time 2 period, say the useful life of whatever the bonds were 3 supporting in the way of investment. Equity doesn't 4 have an end life. So you've got to do it a little 5 different. And the equation I followed is the one 6 that's pretty standard. I do it from the textbook by 7 Roger Morin who's -- it's a well known book. It's not 8 even a textbook, it's more of a handbook guide to 9 regulatory finance. 10 I'll just point out Dr. Morin works for 11 companies when he testifies, and he's probably done a 12 couple hundred cases, if not more. So it's not like 13 I'm pulling something to sandbag here, I'm taking 14 something that is generally agreed upon by witnesses. 15 And he says it's an expense, you're not 16 targeting a share price like Dr. Gaske does here. 17 You're going to give the Company back what it costed to 18 issue the equity. You can't do it the same way as 19 bonds. This equation is developed. It applies only to 20 the dividend yield component because that's where 21 expenses are incurred in the equity that supports the 22 dividend yields. The growth component you don't apply 23 it to because the growth occurs within the Company not 24 because they issued the stock that caused their equity 25 to get larger.	Page 700 1 captured in that MDU Resources credit rating of triple 2 B plus. Somebody else did that, not me. I think it's 3 a better way to get the risk, get it from somebody 4 who's disinterested in the case. 5 Q. Thank you. Moving on, I'd like to talk to you 6 about some of the slides that were presented during Dr. 7 Gaske's testimony. Do you have that in front of you? 8 A. Yes, I do. 9 Q. Could you first turn to slide 5, and I'll just 10 wait for anybody who wants to get there to get there. 11 I should reference it's MDU Exhibit 14. 12 A. Okay. This is Dr. Gaske's regression analysis 13 of risk premiums versus the 30-year treasury bond rate. 14 Now, there's nothing wrong with his analysis. It's 15 done properly. He used the inputs he did, he got the 16 outputs he did. 17 But I'd like to ask you to look at about 2.8 18 percent on the horizontal axis, 2.9, in that range. If 19 you go straight up, you'll see there's about seven, 20 eight, nine, depending on whether you go 2.8 to 2.9 or 21 2.5, but there's a cluster of risk premiums there that 22 deviate quite a bit from his trend line. I see one 23 that I'd say is about 7.45 percent, that top one. And 24 the bottom one would be about 6.25 percent. You can -- 25 we can quibble about five basis points either way there
Page 699 1 Q. Using your flotation cost adjustment versus Dr. 2 Gaske's, what is the difference? What is the effect of 3 that in this case? 4 A. I want it to be precise. I need to look. But 5 I think he was 15 points higher, 12 versus 27 at one 6 point. It's in that range, 14, 15 basis points. 7 Q. Moving on to a different area that you've heard 8 some testimony from. And you've sat through all the 9 testimony before you; is that correct? 10 A. I have, yes. 11 Q. And you've heard the testimony about MDU 12 Resources, Inc. versus separating out Montana-Dakota's 13 North Dakota Gas operations? 14 A. Right. 15 Q. Why is it appropriate to consider 16 Montana-Dakota's parent company in your analysis? 17 A. Well, it's part of the company. So whatever 18 risk that Montana-Dakota utility has -- utilities has 19 is reflected in that parent company bond rating or 20 credit rating. I agree with Mr. Gorman. If you're 21 going to evaluate risk, let's go to an independent 22 evaluation source. I use Standard & Poor's. They lay 23 out that size, among many other factors, is something 24 that goes into developing a credit rating for any given 25 company. And therefore, MDU, its risk level is	Page 701 1 if you want to, but there's a distinct departure from 2 the trend line by those high and low ones, and they're 3 not the only ones there that depart from the trend 4 line. 5 His risk premium method and all these methods 6 that look backwards and find an average outcome given 7 an input that can vary, yes, the 30-year treasury bond 8 can vary, and you can vary it to current circumstances, 9 but there's other things going on besides the 30-year 10 yield on the treasury bond -- or -- and the yield on 11 the 30-year treasury bond. And those other things 12 cause these departures. 13 If you want to get an average ROE, use a method 14 that gives you an average. If you want to get an ROE 15 that reflects current circumstances with all the 16 factors included, aside from the 30-year treasury rate, 17 do what I've done, do what Mr. Gorman has done, look at 18 methods, look at methods that capture forward-looking 19 views by investors of what the risk of the companies 20 are in our proxy groups, and then apply it to the 21 Company. 22 Q. Thank you. Moving on to slides 7 through 9. 23 Could you please explain your comments on those slides? 24 A. Yeah. These are about different measures of 25 size, assets on one page, income on another, then a

Page 702	Page 704
1 discussion of size. I've pointed this out in my 2 surrebuttal testimony. Nicor Energy has -- one has 3 eight operating units and the other has seven. I 4 forget which one has which at the moment, but it is in 5 my surrebuttal testimony. If we're going to look at 6 comparative size, let's look at operating units versus 7 operating units, not parent companies versus operating 8 units. I know MDU is small, but this -- 9 Q. When you say MDU is small, you're talking about 10 Montana-Dakota, the North Dakota Natural Gas division, 11 not MDU Resources, Inc.? 12 A. Right. 13 Q. Please continue. 14 A. That's about it. There's different ways to get 15 comparisons and if you want to look -- I'm just saying, 16 let's get more apples to apples if you want to. 17 Q. Moving on to slide 10. Could you please 18 provide us your comments on slide 10? 19 A. I want to make sure -- 20 Q. The slide 10 is the dividend yields and the -- 21 A. Right. Right. Mr. Gorman talked about this. 22 Utilities have been attractive; therefore their 23 dividend yields have been going down because people 24 have been willing to pay higher prices for them. And 25 they've -- he said there's been an appetite among	1 Line projected ROEs. Could you explain to the 2 Commission your comments on that slide? 3 A. Well, you asked Dr. Gaske yesterday whether 4 this was based on market value returns or book value 5 returns, and he said book value. What was unsaid at 6 the time is that utility market to book value ratios 7 are more than one, considerably more than one, around 8 two at the ones I looked at yesterday, and they have 9 been that way for quite a while. 10 So if you're going to look at a return and 11 you're using book value as the denominator taking a 12 given size of cash return using book value as the 13 denominator, and we know it's smaller than the market 14 value of the denominator because the market to book 15 ratios are more than one, book value return on equity 16 will be higher than if you did it market value. So 17 these are a book value assessment of what these 18 companies are going to be earning, not a market return. 19 And we -- in the DCF model you use market prices. 20 You all, I think, picked up on the fact that in 21 the previous slide, 11, the recent awards, they're 9.7, 22 9.8, 9.5, 9.3, so forth, and one of them was attached 23 to, I think it was Atmos, 9.7, 11.5. How can you 24 explain that Atmos is going to earn 11.5 when they only 25 were recently awarded a 9.7? Well, one of the reasons
Page 703	Page 705
1 investors for stable low-risk companies -- well, you've 2 got that -- versus the competitive companies which are 3 what the S&P 500 captures. So this is not at all 4 unusual. It's not out of line with what the facts are 5 at the current time and what they used to be over time. 6 Q. Commissioner Fedorchak had asked a question 7 earlier that ROEs were slower to follow actual interest 8 rates downward. Should the Commission be quick to 9 follow forecasted interest upward in setting ROEs? 10 What would be your response to that question? 11 A. My response is follow the analysis at the time. 12 If interest -- if investors believe interest rates are 13 going to go up, it will be captured in the DCF model 14 through the prices they're willing to pay because 15 they're anticipating what might happen with alternative 16 investments, it will be captured in the CAPM the same 17 way through the 30-year yield. What they think is 18 going to happen effects what's happening now. So if 19 you want to worry about interest rates, you've got the 20 tools in the models that capture what people really 21 think is going to happen with interest rates. 22 So don't -- don't go one for one proportion 23 upward just because somebody predicts certain size 24 increase in interest rates. 25 Q. Lastly, turning on to slide 12 of the Value	1 is the 9.7 is a market return and the 11.5 is a book 2 value return. Now, they may be able to manage well and 3 exceed that 9.7. Good for them if they do. But don't 4 look at 12 and say Atmos Energy, it's going to start 5 getting authorized ROEs from Commissions of 11.5 6 percent because Value Line is predicting that. That's 7 not what Value Line is predicting. They're predicting 8 a book value return of 11 and a half and so forth for 9 these companies. So these shouldn't guide your 10 authorized ROE in this case. 11 MR. ARMSTRONG: Thank you. That's all the 12 questions I have. I tender Dr. Griffing for 13 Cross-Examination. 14 THE COURT: Mr. Sanderson. 15 MR. SANDERSON: Thank you. 16 17 CROSS-EXAMINATION 18 BY MR. SANDERSON: 19 Q. Good morning Dr. Griffing. We met yesterday. 20 My name is Paul Sanderson, I represent Montana-Dakota 21 in this. I'd like to just ask you a few brief 22 questions to follow up. 23 So you said since your surrebuttal you have 24 made some revisions to your analysis or kind of revised 25 it in comparison to other cases you're testifying in?

Transcript of Proceedings Volume 3

6/1/2018

Page 21 (706 - 709)

Page 706	Page 708
1 A. Yes. 2 Q. And you said that increased the upper end of 3 the reasonable range of ROE in this case to 9.5 4 percent? 5 A. Correct. 6 Q. Okay. And you're aware that's Montana-Dakota's 7 current ROE in this natural gas -- 8 A. Yes. 9 Q. With respect to this issue of proxy companies 10 that were selected, you in essence used roughly the 11 same companies that Dr. Gaske used? 12 A. Yes, I believe the difference was ONE Gas, and 13 as he mentioned, it's relatively new split off from 14 another company three or so years ago. So it finally 15 has enough record of paying dividends that you can say 16 it's stable dividend record and include it in the proxy 17 group. As he mentioned, I think it occurred between 18 the time he filed his direct and I filed my direct. So 19 I don't criticize him for leaving it out at that time. 20 Q. And your proxy group and Dr. Gaske's proxy 21 group are similar to Mr. Gorman's proxy group that he 22 used? 23 A. Yes. And South Jersey Industries is one big 24 difference. I think by the time you get ONE Gas in, 25 South Jersey Industries is the difference. And that's	1 the next page, line 6, I updated my capital asset 2 pricing model analysis there, and that was the result. 3 Q. Okay. And my question was when you included 4 the risk premium of the S&P 500 market return, that 5 produced a 9.50 ROE? Is that -- 6 A. Okay. I see where you're going. If you take 7 Dr. Gaske's market risk premium, 9.50, and add it to my 8 current treasury bond yield of 3.04, yes, you get 9 12.54. 10 Q. Well -- 11 A. And if you -- 12 Q. -- the 12.54 percent S&P 500 market return, 13 doesn't that produce a 9.5 ROE? Or am I 14 misinterpreting your testimony? 15 A. Are you saying that because I've updated my 16 range today to 9.50 that taken together with this, then 17 that produces a 9.50? Or are you saying that within 18 the CAPM there's a 9.50 result? 19 Q. Well, I think maybe the easiest thing, Dr. 20 Griffing, is we don't need to get stuck in that detail. 21 How about this, you updated your ECAPM ROE? 22 A. Yes. 23 Q. And that 9.8 7 rate of return? 24 A. Umm-hmm. 25 Q. And that would be within 13 basis points of Dr.
Page 707	Page 709
1 because in October the acquisition was announced, I -- 2 it was still including the company in my analysis 3 because I was working up to December 18th. And it 4 caught my attention after that, and I took it out of my 5 surrebuttal. And then these recent events May 8th, May 6 22nd, caused me to put it back in, in other cases, and 7 I bring it to your attention here that I do that. 8 Q. And Dr. Griffing, I think we're all in 9 agreement that these are an appropriate proxy group to 10 use in this case? 11 A. Yes. 12 Q. Okay. And I should have -- I'll try to -- 13 there some things I think we agree on, and proxy group 14 is one of them. 15 Now, in your surrebuttal on page 10, am I 16 correct that you did a market risk premium study or 17 analysis? And specifically, I'm looking at your 18 surrebuttal line 20. 19 A. Oh, I didn't -- it's not a risk premium 20 analysis -- well, it's the risk premium within the 21 capital asset pricing model. 22 Q. Okay. And that's -- sorry, your CAPM analysis 23 using a risk premium. And your analysis produced a 24 9.50 ROE? 25 A. For CAPM, I believe it's 9.25. If you go to	1 Gaske's 10.0 requested rate of return, correct? 2 A. It would. 3 Q. Now, in your direct testimony, I want to -- and 4 I'm looking at your Exhibit 15, MFG-15. And I'm 5 specifically looking at page 2. You included litigated 6 ROE rate cases, and your mean or average of the 7 reported rate cases from 2016 was a 9.59 ROE? 8 A. Yes. 9 Q. With a median ROE of 9.5 in 2016? 10 A. Yes. 11 Q. You did the same analysis in 2017, correct? 12 A. Right. 13 Q. And you returned a mean ROE in litigated rate 14 cases -- and just with respect to natural gas -- of 15 9.82 ROE? 16 A. Right. 17 Q. And you in 2017, last year, the median rate of 18 return ROE in litigated cases was a 9.50? 19 A. That's correct. Including the Alaska case, 20 which is a real outlier. In addition to the fact that 21 it's nearly two percentage points higher than any other 22 award in these two years. I've looked at that company, 23 ENSTAR, and it's a pipeline company as well as a gas 24 distribution company. So the Alaska commission took 25 that into account and decided that the risk of that

Page 710	Page 712
1 company deserves an 11.88 percent return. Companies in 2 the proxy group do not have pipeline operations in the 3 portions of their operating companies upon which their 4 ROEs are based. And that's true of every -- these 5 other companies in these two years, except for that 6 Alaska company. 7 Q. And Doctor, you were here where Mr. Gorman 8 performed a same -- the chart we looked at with Mr. 9 Gorman, he took Alaska out, and that returned a 9.61 10 average ROE. Do you recall his testimony? 11 A. Yes. And when I take Alaska out, it's 9.48. 12 Q. Okay. 13 A. It's there. That's what mean with who -- 14 Q. Now, you just referenced slide 11, the -- slide 15 11 of Dr. Gaske's -- of Dr. Gaske's slides where he 16 took the seven reported litigated ROE cases on this 17 year within the last five months, and he has a median 18 authorized rate of return of 9.60. 19 A. Well, it says the median is 9.7. Maybe you 20 mean the mean is 9.6. 21 Q. Oh, you're right, sorry, 9.7. I think the 22 average at 9.63. 23 A. Right. 24 Q. Okay. Now, in that, this year, Atmos, one of 25 your proxy companies, got an authorized rate of return	1 A. Right. 2 Q. Okay. Thanks to Mr. Coffman's line of 3 questioning yesterday, I realized that Missouri Gas and 4 Energy is one of the subsidiary utilities of Spire. 5 Are you aware of that? 6 A. I am now. 7 Q. Okay. And Missouri Gas and Energy also 8 received a 9.8 authorized ROE just three months ago? 9 A. Right. 10 Q. And they -- Missouri Gas and Energy, as part of 11 Spire, would have a higher bond rating than 12 Montana-Dakota Utilities? 13 A. It would have a higher credit rating, yes. 14 Q. Dr. Griffing, I have no further questions. 15 Thank you very much. 16 THE COURT: Okay. Mr. Coffman? 17 MR. COFFMAN: Yes. Yeah, I'll just ask a 18 question about that. Spire. 19 20 CROSS-EXAMINATION 21 BY MR. COFFMAN: 22 Q. Good morning. 23 A. Good morning. 24 Q. John Coffman representing AARP. 25 Are you aware that Spire recently acquired
Page 711	Page 713
1 in a litigated case of 9.70. 2 A. Atmos Energy. 3 Q. What was Atmos Energy's bond rating? 4 A. I'd have to look it up. 5 Q. Do you have it in your materials? 6 A. Yeah. I'm going to go to MFG-2, I think. Yes. 7 Q. And what is Atmos's current bond rating? 8 A. It was A. I expect it's the same now. 9 Q. So Atmos is two levels higher than 10 Montana-Dakota's triple B plus? 11 A. Two notches, right. 12 Q. Okay. And they got a 9.7 authorized rate of 13 return in a litigated case this year? 14 A. Right. 15 Q. Okay. Let's move to another one on slide 11 16 was Spire, Missouri. And Spire Inc. is another proxy 17 company that you used in this case, correct? 18 A. Right. 19 Q. And in February of this year, one of the proxy 20 companies, Spire, got a 9.8 authorized ROE? 21 A. I don't dispute that. 22 Q. Okay. What is Spire's bond rating? 23 A. Spire is A minus. 24 Q. Okay. So that would be one level higher than 25 Montana's triple B plus?	1 Missouri Gas and Energy, it's not an independent 2 utility now? 3 A. I understand now that these are kind of a joint 4 rate case, they came in at the same time before the 5 Missouri commission because they are both units of 6 Spire. You'll see this in rate cases around the 7 country. 8 Q. Right. Well, I noticed that yesterday Mr. 9 Gaske was listing -- he listed an average of recent 10 returns, and he counted Missouri Gas and Energy and 11 Spire as two separate rate orders when in fact it was 12 just one. Would you agree with me that if he's 13 counting that 9.8 twice, that's kind of double counting 14 that particular order? 15 A. You could look at it that way. 16 MR. COFFMAN: Okay. Thank you. 17 THE COURT: Major? 18 MAJOR UNSICKER: Thank you, sir. 19 20 CROSS-EXAMINATION 21 BY MAJOR UNSICKER: 22 Q. With respect to flotation costs, bond flotation 23 costs, would you agree that the utility records these? 24 A. I'm not -- I'm not an accountant, so I don't 25 know what record means. But, yes, they ask for

Transcript of Proceedings Volume 3

6/1/2018

Page 23 (714 - 717)

Page 714 1 recovery of them and there's a way to get them back as 2 an expense. 3 Q. And are they recorded on their financial 4 statements? 5 A. You'd have to point it out to me, but I'm 6 guessing that they are there. I wouldn't be able to 7 find it right away myself. 8 Q. And if they are, could somebody review them to 9 see if they're reasonable? 10 A. Sure. Sure. 11 Q. What about common stock flotation, can they do 12 that with them as well? 13 A. You could see exactly what equity issuance 14 costs that either MDU has incurred or MDU Resources on 15 behalf of MDU has incurred. Ms. Kivitso said yesterday 16 that one of the things that MDU Resources does for MDU 17 is issue its equity. So you've got an instance there 18 of the operating utility company being able to benefit 19 from the parent company's credit rating because they go 20 out into the equity market and they see it's triple B 21 plus. 22 Q. Did you look at what MDU Resources' actual 23 flotation costs have been? 24 A. I tried to. I couldn't find any in the 25 resource I used that goes back six or eight years. But	Page 716 1 roll with what a lot of conversation has surrounded the 2 credit rating. And I could probably ask 100 questions, 3 but I'm going to break it down into something just 4 really basic, if you will, just a few questions. And 5 just to frame it up, the Tax Cut and Jobs Act, there's 6 a benefit to economic growth for a utility, correct? 7 A. There could be. As part of the -- maybe there 8 will be growth coming from the Act in the general 9 economy and utilities would benefit generally from 10 that. But the forecasts I've seen say there will be a 11 bump, not a sustained increase in growth, maybe a year, 12 two, from the TCGA. 13 Q. Have you followed the North Dakota economy? 14 A. Not specifically. 15 Q. Okay. 16 A. I've read some about it in this case. 17 Q. Recognizing that it has been different than the 18 rest of the country in many respects over the last 19 decade? 20 A. Well, you have the Bakken development in the 21 oil fields. When I worked for the Minnesota Department 22 of Commerce, there was a pipeline approval case that 23 came up because one of the companies was building a 24 pipeline from the fields to a pipeline in Minnesota, 25 and the last few miles of that pipeline were in
Page 715 1 they have equity, so at some time they've incurred some 2 equity costs. 3 Q. Now, with respect to cost of debt, is MDU's 4 cost of debt reflective of a triple B rating? 5 A. Yes. 6 Q. And if MDU Resources only had regulated 7 companies, would that bond rating be higher or would it 8 change? 9 A. I think it probably would go up because you'd 10 be going to regulated companies, and the rating 11 agencies treat regulated companies as less risky than 12 unregulated companies, all other things equal. 13 Q. Would it be appropriate for the regulated 14 company to subsidize the nonregulated aspects? 15 A. No. 16 MAJOR UNSICKER: Thank you, sir. Thank 17 you, Your Honor. That's all we have. 18 THE COURT: Ms. Jeffcoat-Sacco. 19 MS. JEFFCOAT-SACCO: We don't have any 20 questions. Thank you. 21 THE COURT: Okay. Commissioner Kroshus. 22 EXAMINATION 23 BY COMMISSIONER KROSHUS: 24 Q. I'm going to break this down or actually just 25	Page 717 1 Minnesota so we did evaluate whether to approve the 2 siting and construction of that pipeline. So for 3 several years through that rather indirect method, I've 4 known about the impact of the Bakken fields on this 5 economy. 6 Q. And one of the reasons I ask, the proxy 7 companies that no one that I've heard has a great issue 8 with, or perhaps really any issue with in terms of 9 companies selected. Do you know if any of those 10 companies have -- if they're in competitive markets in 11 terms of distributions? 12 A. I'm not aware of any. 13 Q. So they would be monopolies? 14 A. Yes. 15 Q. And when I look at the Q1 earnings for MDU, 16 because I think, you know, for consistency sake when 17 we're talking about the credit -- current credit 18 rating, you could say, well, it's being driven by this 19 or driven by that component of the business, but they 20 had a pretty good first quarter? 21 A. Is that in the record? Do I have access to 22 that? 23 Q. I -- 24 A. Just asking. 25 Q. I don't know that it's in the record.

Page 718 1 A. And I'm not going to challenge anything you 2 say, just -- 3 Q. But just the earnings release is just a basic 4 earnings release of 22 cents a share versus 19 -- or I 5 take that back -- from -- versus -- yeah, 22 versus 19 6 cents a share. So that should reflect a Tax Cut and 7 Jobs Act impact I would imagine? 8 A. Yes, the early returns I would think, yeah. 9 Q. From January 1st through March 31st? 10 A. Right. 11 Q. Okay. So overall the Company's doing well. 12 How -- when the public looks and you hear, well, 13 they're not an A rated company, they're not A minus, 14 they're triple B plus, so is it a simple -- well, I 15 think I know the answer to this, but -- and I think 16 somebody alluded to it's one notch down? 17 A. Notch is -- 18 Q. It's not a full grade per se. And I don't 19 know if I'm framing this up. 20 A. You're exactly right. Notch is the term that's 21 used when you go from A minus to A, for example. 22 That's a notch. 23 Q. So the Company still has adequate capacity in 24 terms of meeting financial obligations? 25 A. Yes. A word about notches and so forth?	Page 720 1 you. No other questions for me. 2 THE COURT: Chairman Christmann. 3 4 EXAMINATION 5 BY CHAIRMAN CHRISTMANN: 6 Q. What's the range of investment grade bonds? 7 A. Triple B minus to triple A, I think. Whatever 8 the top is. 9 Q. Do you know how many notches there are? 10 A. I think maybe it's 12, if I recall. I haven't 11 been working with many companies at the top notches, so 12 I can't tell you for sure. But I think 12 comes to 13 mind from past reading. 14 Q. At least 10 or 12? 15 A. Yeah. 16 Q. So there's quite -- at least 10 or 12 notches 17 of investment grade bonds? 18 A. Right. 19 Q. And triple B plus is about -- it's not the 20 lowest of them? 21 A. No, it isn't. 22 Q. Maybe fourth lowest or something like that? 23 A. There's triple B minus is one lower. 24 Q. Okay. So it's the second lowest? 25 A. Umm-hmm.
Page 719 1 Q. Sure. 2 A. Mr. Gorman said, and I agree with this, as long 3 as you've got a proxy group where the credit ratings 4 are reasonably close to one another, you don't need to 5 worry about one notch, two notch and so forth. And you 6 don't have to take his word for it or mine, you can go 7 to the Standard & Poor's website and find documents 8 that say when we look at a company, it may fall this 9 way, it may fall that way, don't worry about that 10 notch. Just kind of look at where it is in general 11 compared to everything else. And that's what I'm doing 12 when I'm looking at the proxy group. 13 Q. And the return on equity, there's some 14 variation, but if you take the 14 to 15 -- and just to 15 clarify, you said if you take the 14 to 15 basis points 16 out from Mr. Gaske's testimony that you would be very 17 similar? 18 A. Right. Take out the extra flotation that he 19 gets from applying the flotation factor incorrectly. 20 Q. So relatively -- relatively consistent or 21 actually -- 22 A. Yes. 23 Q. -- very consistent? 24 A. Yes. The DCF model will do that for you. 25 COMMISSIONER KROSHUS: All right. Thank	Page 721 1 CHAIRMAN CHRISTMANN: Okay. No other 2 questions. Thank you. 3 THE COURT: Commissioner Fedorchak. 4 5 EXAMINATION 6 BY 7 BY COMMISSIONER FEDORCHAK: 8 Q. Thank you, Dr. Griffing. Just a couple 9 questions from me. In terms of the flotation costs, 10 Mr. Gorman in his testimony said he didn't consider it 11 because the Company -- he couldn't identify if the 12 Company had incurred the cost of common stock issuance, 13 how much should be allocated to this jurisdiction and 14 if the cost is reasonable. 15 A. Right. 16 Q. What's your interpretation of that as a 17 rationale for not including the flotation cost? 18 A. I'd say it's a strict rationale. There's often 19 rate disagreement about flotation and how much it 20 should be. And I see it as a legitimate expense. And 21 as I said, I saw that the Company has equity, so at 22 some point in the not-too-recent past they have issued 23 equity. I wish I had their own expenses. When I do 24 have the expenses for a company for its equity 25 issuances available, that's what I use when I do

Transcript of Proceedings Volume 3

6/1/2018

Page 25 (722 - 725)

Page 722 1 flotation costs in other cases. Dr. Gaske's method is 2 a good fallback. You're comparing it to a proxy group, 3 so why not think that its equity issuance cost will be 4 about the same as the proxy group companies. And 5 therefore, that's why I did it the way I did it. 6 Q. Okay. I don't want to belabor this too much, 7 but it strikes me as kind of the key difference between 8 the three potential conclusions here. Maybe I'm wrong. 9 But it's the difference between yours and Dr. Gaske's, 10 so I'm guessing it's probably the significant 11 difference between yours and Gorman's as well? 12 A. If you took 9.1 and added 12 basis points to 13 it, you'd come close to the 9.23 that I did in my 14 surrebuttal before I knew about the SJTI merger 15 developments that caused me to raise my -- 16 Q. Okay. So why didn't the Company provide this 17 information? It seems pretty straightforward. Surely 18 they know what the costs were. If it's important, 19 shouldn't it be provided so it can be accurately 20 calculated into the formula? 21 A. I wouldn't know why the Company didn't provide 22 it. You'd have to ask them. 23 Q. Okay. I appreciate your analysis at the very 24 beginning of your testimony of the stocks and the drop 25 after the tax reform. Is it -- did you look if any of	Page 724 1 basically suggesting I think or wanting us to believe 2 that if you got an A rating, which is higher than what 3 MDU has, and you got the ROE of 9.7 percent, then that 4 is needed to attract the capital and if they suffer -- 5 they would suffer if they got a -- making a conclusion, 6 he didn't say this, but I think he wants us to believe 7 that a triple B plus is lower so therefore if they 8 don't get a higher ROE they're going to suffer in the 9 market? 10 A. Right. Two responses. One, as I said, 11 Standard & Poor's says don't worry about a notch, don't 12 worry about a couple notches, it might fall either way. 13 Mr. Gorman said the proxy group average was A minus. 14 MDU is triple B plus, it's one notch. It's what S&P 15 says don't worry about. 16 When Mr. Gorman was testifying, I was trying to 17 look at my DCF ROE testimony, and I thought I came 18 across one outstanding example of where the DCF ROE did 19 not correspond to a higher-lower bond rating. But up 20 here I can't seem to find it, and it wasn't anything I 21 testified to. But there's -- I have seen it in the 22 past. A company with a higher bond rating will in the 23 DCF analysis come out with a lower ROE than a company 24 with -- or excuse me, the other way around. Higher 25 bond rating will come out with a lower -- higher ROE
Page 723 1 the companies that were listed there -- those are 2 the -- those were the proxy companies? 3 A. Right. 4 Q. Are any of those companies among the group of 5 24, 26 utilities that were downgraded by Moody's or by 6 the rating agencies after the tax act? 7 A. I don't know. I'd have to look at the Moody's 8 document. 9 Q. Would that distinguish -- would that account 10 for a drop in their stock price? 11 A. Well, certainly -- 12 Q. Would that be relevant to consider? 13 A. Pardon me for talking over you. 14 Q. No. 15 A. If you -- if a company did receive an 16 announcement from Moody's that they've gone from stable 17 to whatever it is that's below that, yes, you would 18 think the investors in the market would look at that as 19 one factor, and it would be reflected in the equity 20 share prices they would be willing to pay. 21 Q. Okay. And then my last question. Mr. 22 Sanderson was making the comparison between the bond 23 rating and the ROE. 24 A. Right. 25 Q. So can you respond to that? I mean, he was	Page 725 1 than one with a lower credit rating. There may be some 2 correspondence, but it's not one to -- 3 Q. Well, I guess what I'm really interested in is 4 if -- how will the investors look at it if you've got a 5 triple B rating -- triple B plus and say the ROE that 6 you're recommending as compared to going to one of 7 these others, Atmos with an A rating and 9.7 percent 8 ROE? Will that hurt them in their efforts to attract 9 capital? 10 A. Mr. Gorman made a good point about this. He 11 says different commissions have different records. 12 Some tend to come in higher than others. I think an 13 investor would look at the record of the commission 14 where the 9.7 was authorized and compare it to here. 15 And conditions change, as my recommended increase 16 shows. 17 If you look at another state, even though it's 18 in roughly the same time period, there may have been 19 some factor that would account for that two-tenths of a 20 percent difference in the ROE. Other jurisdictions' 21 ROEs are guidelines, in my opinion, not something that 22 you use as a justification for a certain ROE. 23 COMMISSIONER FEDORCHAK: Very good. Thank 24 you. That's all my questions. 25 THE COURT: Mr. Armstrong?

Transcript of Proceedings Volume 3

6/1/2018

Page 26 (726 - 729)

Page 726 1 2 REDIRECT EXAMINATION 3 BY MR. ARMSTRONG: 4 Q. Dr. Griffing, just a few follow-up questions 5 for you. And I want to make sure to maybe discuss this 6 flotation cost adjustment in some more detail, because 7 I'll tell you what happens to me in this case, all of 8 you return experts have the last name that starts with 9 G, so they talk about one and sometimes I'm thinking 10 about the other one. Okay. That's just the way my 11 mind works. But I kind of thought when Commissioner 12 Kroshus was asking you questions about Dr. Gaske's that 13 you were maybe interpreting Mr. Gorman, but I could be 14 wrong. So that's why I'm asking these questions. 15 As I understand it, between you and Mr. Gorman, 16 the adjustment between the flotation cost, him not 17 including it and you including it using your method, is 18 a difference of 11 to 12 points? Basis points. 19 A. Well, to be specific, when it's applied to my 20 analysis -- and we had the one company difference in 21 the proxy groups. But when you do it with me, it 22 accounts for 11 to 12 basis points. I'm thinking that 23 if he had done it, even without including South Jersey 24 Industries, it's going to be 10 to 14, something like 25 that. Because he would -- I apply my method, the	Page 728 1 Now, column K is columns D and column H prior 2 to flotation cost adjustment by either one of us. I 3 applied Dr. Gaske's equation to not just column H, but 4 as he does it, column D, and column D is the one I'm 5 saying you don't apply it to. But column K is the 6 result of his application of his equation to my 7 information, which might be slightly different than his 8 because we did it at different times and so forth. So 9 21 basis points in this analysis difference. 10 Q. And doing that flotation cost, both you and Dr. 11 Gaske rely on market information for the flotation? 12 It's not -- 13 A. We relied on -- well, he found actual costs and 14 percentages. I supplemented it with a couple others. 15 I didn't disagree enough with him to say that 3.6 is -- 16 so, yeah. 17 Q. If you had an amount from MDU of what is the 18 actual flotation cost, you would have used that? 19 A. Yes, I would. 20 Q. But you didn't have that amount? 21 A. I didn't, no. 22 Q. Okay. And then just one further follow-up 23 question. You were asked some questions on cross about 24 the ECAPM? 25 A. Yes.
Page 727 1 correct method, and you're talking about tiny, tiny 2 difference there, one or two basis points in the 3 application of it. 4 Q. Okay. And then between you and Dr. Gaske, you 5 both applied a flotation cost adjustment, but you 6 applied it differently? 7 A. Yes, we did. 8 Q. And you explained in your pre-filed testimony 9 and today why you think yours is correct. But the 10 difference between yours and his, in your surrebuttal 11 testimony, it says 21 basis points at page 14. 12 A. Okay. And an even better way too look at it is 13 to go to MFG-8, schedule 4 -- oh, sorry. That's my 14 direct. Let's do the more recent. 15 Q. In your surrebuttal, you reference MFG-24, 16 schedule five. 17 A. Right. That's what I'm trying to get to. 18 Yes, you can look at columns J and K. And if 19 you were to look at column D, which is the average 20 growth rate component for the DCF model as I found it, 21 and if you looked at column I -- excuse me -- yeah, if 22 you look at column I, that's my dividend yield where I 23 have included the flotation cost. If you were to look 24 at column H, you see it's 11 points -- 11 basis points 25 difference.	Page 729 1 Q. How is an ECAPM -- how do you use the ECAPM? 2 A. Well, I use it as one method. And both the 3 CAPM and the ECAPM, as I've said in both testimonies, 4 they're so subject to analyst decision on what input to 5 include that I just don't see them as reliable as the 6 DCF. Now, it's not that the DCF model doesn't require 7 some judgment. Certainly we've seen that in whether to 8 include a company or not in the proxy group. 9 But my approach is I tell you what I'm doing, I 10 tell you why I'm doing it, and you can accept it. And 11 then we go to dividends paid. That's from actual 12 information that I have nothing to do with. The same 13 with the share prices. That's from investors in the 14 market expressing their opinion about these companies. 15 I have nothing to do with that. The growth rate 16 projections. Okay. Those are subjective. But again, 17 we go to independent analysts who have no dog in this 18 fight and we use that. It's the best we can get in the 19 way of growth rate estimates. 20 So once you get to the proxy group, the DCF 21 model, there is some judgment involved. There's 22 different sources you can use for the growth rate 23 estimates. But the ones I use are pretty common, and 24 they overlapped with what both Mr. Gorman and Dr. Gaske 25 used. And you can look at that and say, I accept this,

Page 730 1 or I want to tweak it a little bit because Dr. Griffing 2 did it slightly different and I don't quite agree with 3 it, but it's upfront there. 4 You come to the CAPM and the ECAPM, the risk 5 free rate is one that we disagreed on. You can 6 disagree quite a bit. I came in at 3.04 -- 3.04 7 percent. Both of them relied on the forecasts from 8 Blue Chip which were, not sure, 3.7, 3.6, 3.8, 9 something like that. There's a .8 percent difference 10 in what we start with. 11 The other inputs into the risk premium 12 portion -- or market risk premium portion of the CAPM 13 and ECAPM models are the same way. What you use, 14 there's a lot of different options out there to use, 15 and it can effect the outcome of those models a lot. 16 That's why it's not as good in my mind, not as sound, 17 because there's so much room for analyst input compared 18 with the DCF model. 19 Q. And so do you use that then as kind of a check 20 for your DCF model? 21 A. Yes, it's a sound model, theoretically. Again, 22 I explained to you why I use the inputs I do, and I 23 think my inputs are good ones. I particularly think 24 the risk-free rate over the last nine years is a much 25 better indicator of where interest rates are headed	Page 732 1 analysis, look at that? 2 A. No, I didn't. 3 Q. Okay. Well, in fact, in the 2011 report, the 4 resource is -- the resources had a triple B plus. You 5 see that? 6 A. Oh, okay, down in the second paragraph? 7 Q. Yeah. And down in the second paragraph you see 8 at that time Montana-Dakota Utilities was rated as a 9 triple B plus? 10 A. Umm-hmm. 11 Q. And another investor -- or, excuse me, 12 independent utility, Cascade Natural Gas, received a 13 triple B plus rating? 14 A. Right. 15 Q. Okay. And granted, this is the 2011 report, 16 apples to apples. In 2017, I'll represent to you, did 17 you look at the ratings in 2017 for MDU Resources and 18 its subsidiaries? 19 A. I went to Market Intelligence from Standard & 20 Poor's, something that we subscribe to, and that's 21 where I obtained my credit ratings. 22 Q. Okay. And you found in 2017 MDU Resources was 23 still at a triple B plus? 24 A. Yes. 25 Q. Now, I'll represent to you Standard & Poor's
Page 731 1 than the Blue Chip forecast have been. And I laid that 2 out in the exhibit about much they are off the Blue 3 Chip forecasts have been. 4 MR. ARMSTRONG: Thank you. That's all the 5 questions I have. 6 THE COURT: Mr. Sanderson. 7 MR. SANDERSON: Thank you. 8 9 RECROSS-EXAMINATION 10 BY MR. SANDERSON: 11 Q. Dr. Griffing, I just want to follow up on a 12 couple questions. And specifically -- and you were 13 asked some questions, well, what would be the rating if 14 Montana-Dakota Resources if the utilities were spun 15 off. Do you recall that line of questioning? 16 A. A question like that, yes. 17 Q. Okay. Do you have Exhibit 50 in front of you? 18 MR. ARMSTRONG: It's up there. 19 MR. SANDERSON: I have an extra copy here. 20 THE WITNESS: Oh, here it is. 21 BY MR. SANDERSON: 22 Q. Are you aware that at different times Standard 23 & Poor's has provided ratings to Montana-Dakota and MDU 24 Resources' other natural gas utilities, including 25 Cascade Natural Gas? Did you, as part of your	Page 733 1 did not independently rate in its 2017 report 2 Montana-Dakota's utilities, but it again rated Cascade 3 Natural Gas as a triple B plus. Were you aware of 4 that? 5 A. I am now. 6 Q. Okay. Does that -- would that cause you to 7 possibly reconsider your earlier testimony that if you 8 broke off the utilities it would raise the credit 9 rating from a triple B plus to an A minus or something 10 different? 11 A. Well, I believe I said it could. 12 Q. Okay. 13 A. Just as a side light here, I worked in 14 Minnesota, I worked on a docket where the Cascade 15 merger was approved or not. And before that, as an 16 analyst in Minnesota, Cascade was often in my 17 comparison group, my proxy groups, as I call it. So 18 I'm aware of that company and that it's gone now as an 19 independent. 20 Q. And Dr. Griffing, in response to Commissioner 21 Christmann's questions about these notches, and I 22 understand your testimony, but you said there was 12 23 notches? 24 A. Right. 25 Q. Montana-Dakota Utility's triple B plus is two

Transcript of Proceedings Volume 3

6/1/2018

Page 28 (734 - 737)

Page 734	Page 736
1 from the bottom, correct, from being unrated? 2 A. Yes. 3 Q. Okay. So the very lowest notch is triple B 4 minus? 5 A. Right. 6 Q. One notch above that triple B? 7 A. Right. 8 Q. And then the triple plus -- 9 A. I misspoke earlier when I -- yeah, I skipped 10 the triple B when I went from triple B plus to triple B 11 minus. 12 Q. Yeah. So -- and I'm not disputing kind of 13 where we're at. But also in the scope of these 12 14 notches, we're at -- the utilities we're talking about 15 are at the bottom end of this, of the 12 notches? 16 A. Yeah, to the -- say 25th percentile to 50th 17 percentile, something like that. 18 Q. But I think you -- at the very start of your 19 presentation, Dr. Griffing, you said the whole purpose 20 of doing this ROE is because under the law the 21 Commission must set a reasonable rate to allow the 22 company to attract investors to have a strong company, 23 something along those lines? 24 A. Right. 25 Q. And that's the whole reason we're trying to	1 that you wanted to put in a utility, would you invest 2 that Atmos, who has an A rating and a 9.7 authorized 3 ROE, or would you put it in Montana-Dakota Utilities 4 that's two notches below if this Commission granted 5 your 9.23 percent ROE or Mr. Gorman's 9.1 percent ROE? 6 A. If I was an investor, that's information I 7 would perhaps start with. And then I would read the 8 10Ks of the companies and other information that I 9 could get ahold of and make an assessment based on all 10 of that information, where the best investment was. 11 And it might go either way. But it wouldn't be just on 12 the ROEs. 13 Q. Certainly not just on the ROEs. But all 14 investors -- the general principle is all investors are 15 trying to achieve the highest rate of return they can; 16 is that fair? 17 A. Yes, consistent with their own level of risk. 18 Q. Consistent with their own risk. So when 19 they're looking at this group of proxy companies, one 20 of the considerations they'll be looking at in this 21 group of utilities, if they want to invest in a 22 utility, is authorized rates of return? 23 A. Yes. 24 MR. SANDERSON: Dr. Griffing, I have no 25 further questions. Thank you.
Page 735	Page 737
1 come up with this ROE analysis, correct? 2 A. Right. 3 Q. And I think you said it's very subjective. 4 Some inputs you use the same as Dr. Gaske and maybe 5 different from Mr. Gorman, and sometimes Mr. Gorman and 6 Dr. Gaske use certain inputs that you don't, correct? 7 A. (Nods head.) 8 Q. So there's a lot of subjectivity based on the 9 inputs you use; is that fair? 10 A. Yes, and I would reiterate that the DCF model 11 has -- is less subjective than the CAPM and the other 12 models. 13 Q. Okay. And when you talked about looking at -- 14 looking at comparable authorized returns, that's 15 information you put in your report as relevant, 16 correct? 17 A. Yes, it's how I arrived at my DCF model average 18 ROE, yes. 19 Q. And it's certainly something Mr. Gorman also 20 included was comparable authorized ROEs? 21 A. Yes. 22 Q. So, you know, thinking about this whole 23 process, why we're here, why we're doing this to 24 attract capital, just hypothetically, Dr. Griffing, if 25 you were an investor with a large amount of capital	1 THE COURT: Okay. Mr. Coffman, anything 2 else? 3 MR. COFFMAN: No more questions. Thank 4 you. 5 THE COURT: Major? 6 MAJOR UNSICKER: Thank you, sir. 7 8 RECROSS-EXAMINATION 9 BY MAJOR UNSICKER: 10 Q. I wanted to reference that 2011 report there. 11 Do you have a copy of it, sir? 12 A. Right here. 13 Q. Is it possible that triple B plus rating in 14 there, is it possible that these ratings reflect MDU's 15 relationship with MDU Resources? 16 A. Yes. 17 Q. Okay. And now, I was just going to have you 18 read two sentences. I'm going to have you go down to 19 the fourth paragraph there. And if you could just read 20 those first two sentences of that paragraph? 21 A. "We consider the Company's financial risk 22 profile as intermediate." 23 That's the first sentence, right? 24 Q. Yes, sir. 25 A. "And this is supported by the relatively steady

Transcript of Proceedings Volume 3

6/1/2018

Page 29 (738 - 741)

Page 738	Page 740
1 cash flows from the Company's utilities business as 2 well as its largely stable credit measures." 3 Q. Thank you. And one last question. If you were 4 making an investment decision, would rate affordability 5 be a factor that you would look at, too? 6 A. You mean if I was making an investment in -- 7 Q. Correct. 8 A. -- the same way that Mr. Sanderson asked me to 9 do? 10 Q. Right. Sorry, I should have clarified that. 11 A. And I would go to see the rate design of the 12 Company; is that what you're saying? 13 Q. Yes, sir. 14 A. Since I'm in the business, I probably would 15 just out of curiosity, if nothing else, and try to make 16 some assessment of it. I have done a little bit with 17 rate design in the past, and it's an area I'm curious 18 about. 19 Q. Would sophisticated investors look at that? 20 A. I think they certainly would. Many of the 21 purchasers of utility stocks are institutions, 22 universities, mutual funds, foundations. Often 60 or 23 70 percent of the shares of the utility will be owned 24 by companies -- not companies, but institutions like 25 that. And those people have lots of money. They're	1 THE WITNESS: I do. 2 THE COURT: Thank you. Mr. Armstrong. 3 MR. ARMSTRONG: Thank you. 4 5 DIRECT EXAMINATION 6 BY MR. ARMSTRONG: 7 Q. Are you the same Dante Mugrace who submitted 8 direct and surrebuttal testimony in this case marked as 9 PSC-24, the trade secret version PSC-24B, and PSC-25? 10 A. I am. 11 Q. And prior to the hearing, have you reviewed 12 your testimony? 13 A. I did. 14 Q. And if you were asked the same questions today, 15 would you provide the same answers? 16 A. I will. I have. I would. 17 Q. I do? 18 A. Yes. Correct. The answer is correct. 19 Q. You've been present through the testimony of 20 all the witnesses in this hearing, have you not? 21 A. Yes. 22 Q. Okay. Has that testimony changed your opinions 23 from the pre-filed testimony at all? 24 A. It has not changed by opinions, but I do have 25 some corrections to my revenue requirement exhibits.
Page 739	Page 741
1 investing on behalf of themselves, the university, the 2 foundation, and they have staff that would look at that 3 down to that level and maybe beyond it. They would 4 have the time, they would have expertise built up over 5 years, and they would look into it. So, yes, people 6 would look at more than the credit rating, I think. 7 Especially from those kind of owners. 8 MAJOR UNSICKER: Thank you, sir. Nothing 9 further, Your Honor. 10 THE COURT: Ms. Jeffcoat-Sacco. 11 MS. JEFFCOAT-SACCO: Nothing. Thank you. 12 THE COURT: Okay. Thank you, Doctor. 13 THE WITNESS: Thank you. 14 THE COURT: I think we'll continue on with 15 your next witness, at least for a while. 16 MR. ARMSTRONG: We call Dante Mugrace. 17 THE COURT: Mr. Mugrace, I'll have you 18 spell your first and last name for the record, please. 19 THE WITNESS: Dante, D-a-n-t-e; Mugrace, 20 M-u-g-r-a-c-e. 21 THE COURT: Please raise your right hand. 22 23 DANTE MUGRACE, 24 duly sworn, was examined and testifies as follows: 25	1 Q. Okay. And I guess you can tell me, is it 2 better -- we're going to go through your revenue 3 requirement testimony. Is it better to just note those 4 corrections now, or do you want to wait as we go 5 through the exhibits? 6 A. I can wait as we go through the exhibits. 7 Q. Starting off, Mr. Jacobson, when he testified, 8 testified that he interpreted your revenue requirement 9 number to be actually 1.329 million because your 10 recommendations did not account for a reduction in 11 revenue related to aircraft. Did you hear that 12 testimony? 13 A. Yes. 14 Q. Okay. What's your response to that? 15 A. Well, most of my revenue requirement increase 16 does relate to the sales part of the Company's 17 operations. It's not transportation, it's just the 18 sales. But you also have to include the reduction in 19 aircraft, which is other rent, which I reduced. So my 20 operating revenue is based on the Company's gas 21 services, 1.329 million. But my net overall revenue 22 requirement increase is 867,496. 23 Q. Thank you. I would now like to move into some 24 of the issues that are in dispute. Can you please 25 summarize for us your recommended reduction as it

Page 742 1 relates to incentive compensation? 2 A. Yes. In this instance, I'm recommending a 3 60-40 split on the Company's overall incentive 4 compensation plan. I know that the compensation 5 programs have 50 percent related to other goals and 50 6 percent related to customer service goals. And then 7 the higher -- the higher-end executives or higher-end 8 pay employees, 45 percent other goals, 45 percent 9 customer goals and 10 percent other. So I took a 10 balance, a reasonable balance of disallowing 60 percent 11 of that incentive compensation plan because I don't 12 believe it provides customer service issues. And the 13 40 percent, I believe that it provides a good balance 14 that the customer -- the Company is providing some 15 customer service related issues, and they should get 16 money for that piece, but not money for goals that 17 relate to shareholder incentive or net operating -- or 18 earnings increase, or dividend increase or executive 19 leadership. Those aren't customer service related 20 issues. 21 Q. During the course of your investigation, did 22 you ever receive anything from the Company that allowed 23 you to determine whether employees meet the metrics 24 associated with the incentive plan? 25 A. All I saw was an Aon Hewitt survey that says	Page 744 1 Q. In his testimony two days ago, Mr. Jacobson 2 indicated there was an error because you overstated the 3 payroll tax adjustment after reducing the incentive 4 compensation. What is your response to that? 5 A. I don't think I made an error. I used all of 6 my incentive compensation I recommended, all my labor 7 balances, and I multiplied by the 0.3 percent payroll 8 tax to come up with my payroll tax expense. I don't 9 believe I made any mistake. 10 Q. Going back one question, I guess. You know, I 11 had asked you the possibility of that incentive 12 compensation wouldn't be paid in the future. What 13 would the effect be if the incentive compensation is 14 included in the revenue requirement but the employees 15 do not qualify for the incentive compensation? 16 A. It would still be in the revenue requirement 17 until the next base rate case. I don't think the 18 Commission can claw back those dollar amounts. They 19 set the rates in this proceeding, and they will be set 20 until the next base rate proceeding. 21 Q. Will there be a return on that as well? 22 A. It's an expense, so there won't be a return, 23 just an expense. Expense recovery. 24 Q. The next item that was discussed as the 25 difference between you and the Company on the revenue
Page 743 1 that the Company's incentive plan is reasonable, it's 2 competitive with the markets and other utilities that 3 provide that incentive compensation. But I haven't 4 seen anything that shows me that the metrics and the 5 performance goals were met, were they executed. I 6 don't see anything that they were executed and how much 7 each of these employees receive the incentive 8 compensation related to their specific functions or 9 goals. 10 Q. And you've heard the testimony that in some 11 years incentive compensation is paid and some years 12 it's not paid, correct? 13 A. Yes. 14 Q. And in this case, am I accurately summarizing 15 it that they're asking to be included in the revenue 16 requirement and assumption that it's basically all the 17 goals are being met? 18 A. That's what I understand. 19 Q. And that would carry forward in the revenue 20 requirement regardless of whether it's actually -- the 21 incentives are met or not met? 22 A. Yes, even in 2018. 23 Q. And does that further support a reduction of 60 24 percent? 25 A. Yes, it does.	Page 745 1 requirement was a return on equity item. And that -- 2 am I correct, that's a calculation based on whatever 3 number is recommended? 4 A. Yes, whatever Dr. Griffing provided me, that's 5 the number I used. 6 Q. And your surrebuttal testimony calculated that 7 amount for a 9.23 percent return on equity; is that 8 correct? 9 A. Yes. 10 Q. Do you know what the revenue requirement amount 11 would be for return on equity for 9.5 percent? 12 A. I could do it. 13 Q. Would it take a real long time? 14 A. No, couple seconds. I have it here, but I just 15 want to make sure. Double check. 16 About an extra quarter million dollars. 17 Q. Thank you. The next item that was discussed 18 was the reduction for the pipeline replacement projects 19 in 2018. And I understand that your adjustment is 20 based off the testimony of Mr. Pavlovic, correct? 21 A. Yes. 22 Q. Moving on, can you please summarize for us the 23 reasons for your reduction related to inflationary 24 adjustments? 25 A. I don't believe inflation related adjustments

Transcript of Proceedings Volume 3

6/1/2018

Page 31 (746 - 749)

Page 746 1 are known and measurable. They're just blanket type of 2 increases applied to all costs. They don't take into 3 consideration the ups and downs of the economy. Costs 4 go up, costs go down. The Company is trying to 5 increase costs across the board at a 1 -- 2.22 percent 6 increase. It's a general inflation factor. I don't 7 think it's known and measurable, and I just took it 8 out. 9 Q. Can you please summarize for us your reductions 10 for vehicle -- well, moving back. I mean, where cost 11 and increases known and measurable, you allowed those, 12 correct? 13 A. Yes, especially in the medical and dental, 14 overtime and corporate insurance. 15 Q. And postage? 16 A. Postage, yes. That went up in May. 17 Q. Can you please summarize for us your reduction 18 for vehicles and work equipment? 19 A. Originally I used a three-year average just 20 to -- because they went up so much from 2016, 2017, 21 2018. Then I went back and I looked at the Company's 22 rebuttal testimony and I used a two-year average rather 23 than a three-year average. So all I did was average 24 out 2017 and 2018. 25 My original reduction was a \$21,000 reduction.	Page 748 1 appropriate. 2 Q. Mr. Jacobson -- and you further explained your 3 disagreements in your testimony, correct? 4 A. Yes. 5 Q. Okay. Mr. Jacobson testified yesterday that 6 your surrebuttal testimony changed the reduction in O&M 7 of \$12,949 to an increase in O&M of \$12,949 resulting 8 in error of twice that amount. What is your response 9 to that? 10 A. If the Company can provide me that information 11 in the calculation, I will certainly look at it. 12 Q. You haven't been able to find the error 13 yourself? 14 A. No. 15 Q. Can you please summarize for us your reductions 16 related to employee housing? 17 A. Yes. Well, I believe the employee -- loss of 18 employee housing should not be a rate based deduction. 19 I don't believe the Company should earn a return on a 20 loss that does not have the property anymore, it's not 21 used and useful, and get a return on that loss for the 22 next ten years. If the Company wants to account for 23 the loss on employee housing, they should use it as an 24 income statement, put it the income statement and 25 amortize it over a certain number of years. Recover it
Page 747 1 I went back and looked at my calculation and it should 2 be a \$24,000 reduction based on the increase of 2017 3 and 2018. 4 Q. Okay. So that's one of the corrections to 5 make? 6 A. Yes. 7 Q. Mr. Jacobson testified that you reduced both 8 depreciation expense and O&M resulting in an error of 9 \$38,488. What's your response to that? 10 A. I don't know where he got that information 11 from. If he can provide me the calculation, I would 12 certainly look at it and make my adjustments. 13 Q. You've made some adjustments to your testimony 14 for corrections, correct, in the past? 15 A. Yes. 16 Q. Thank you. Can you please summarize for us 17 your reduction for aircraft and associated expenses? 18 A. Well, the Company hasn't provided any breakdown 19 or comparisons to show the cost related to commercial 20 air flights and chartered or company air flights. If I 21 could see those comparisons I could make my 22 adjustments. But the Company has other forms of 23 transportation they can use to go back and forth to 24 meetings: Cars, buses, trains. The use of aircraft 25 solely for the Company's business I don't think is	Page 749 1 that way. But the Company should not earn a return on 2 a loss. Rate based items should include used and 3 useful and provision of utility service. If the 4 Company does not have this property anymore, it's not 5 used and useful, and it should not be included or 6 recorded as a rate based item. 7 MR. ARMSTRONG: Judge, may I approach the 8 witness? 9 THE COURT: Yes, you may. 10 MR. ARMSTRONG: We're on, I believe, 11 Exhibit 51; is that correct? 12 THE COURT: Yep. 13 MR. ARMSTRONG: I'm going to hand the 14 judge the original. 15 MR. SANDERSON: Have you premarked that? 16 Why don't you go to 46. That's why I went to 50 to 17 leave you that room. 18 MR. ARMSTRONG: Can we do 46 then, Judge? 19 THE COURT: We can do 46. 20 BY MR. ARMSTRONG: 21 Q. Mr. Mugrace could you identify what I've handed 22 you that is marked as Exhibit 46? 23 A. Data response from the Company, 2-46. It has 24 to do with some information on the loss on sale of 25 employee housing.

Transcript of Proceedings Volume 3

6/1/2018

Page 32 (750 - 753)

Page 750	Page 752
1 MR. ARMSTRONG: Okay. Offer Exhibit 46. 2 MR. SANDERSON: No objection. 3 THE COURT: Mr. Coffman? 4 MR. COFFMAN: No objection. 5 THE COURT: Major? 6 MAJOR UNSICKER: No objection. 7 THE COURT: Ms. Jeffcoat-Sacco? 8 MS. JEFFCOAT-SACCO: No objection. 9 THE COURT: Okay. PSC Exhibit 46 will be 10 received. 11 BY MR. ARMSTRONG: 12 Q. Does using this exhibit help you explain kind 13 of your recommendations on housing? 14 A. Yes. 15 Q. Using this exhibit, can you please explain to 16 us your recommendations on housing? 17 A. Sure. The Company purchased about 51 housing 18 units starting from July 2011 all the way through 19 mid-July 2013. They paid almost \$5 million for the 20 housing. The net book value was \$4.4 million. They 21 sold it for 1.4. The net proceeds was 1.4. The actual 22 loss was \$3 million. And they retired all these or 23 sold them off in 2016. And the Company is proposing to 24 recover that loss of \$785,000 over the next ten years 25 at a rate base addition and get a return on that.	1 So barring this confusion, I'm just taking a 2 50-50 split and have the Company recover 50 percent of 3 that advertising expense. 4 Q. You've identified some advertising that you 5 agree should not be included, correct? 6 A. Well, it's -- there's general ledger balances, 7 it says promotional advertising, it has explanations, 8 some of this stuff doesn't appear to be advertising. 9 But instead of going crazy and looking through ten 10 documents, ten pages of documents, the only way I can 11 estimate that it's a reasonable balance is just share 12 it 50-50. 13 Q. And why do you view that as a reasonable 14 balance? 15 A. Because some of this stuff, I just can't 16 understand it. It's confusing. 17 Q. Did you attempt to gather information to 18 understand it more fully? 19 A. At that point I did not, no. I should have. 20 Q. Has any of the other testimony cleared it up 21 for you? 22 A. No. 23 Q. And there was some comment yesterday about, I 24 think it was Cavalier and Carrington Chambers of 25 Commerce; do you recall that?
Page 751	Page 753
1 Q. And why do you have a problem with that? 2 A. Because I think that, number one, it's not used 3 and useful anymore. And if the Company wanted to 4 account for this loss, they should put it on the income 5 statement. They should not be earning a return on a 6 loss. 7 Second of all, everything was spent -- or 8 everything was retired in 2016. The Company's test 9 year is 2018. I think it's an out-of-period 10 adjustment. 11 Q. Thank you. Can you please summarize for us 12 your reductions for advertising and dues? 13 A. Sure. As I look through the Company's 14 advertising expense, which is in response to statement 15 K, some of these advertising expenses don't coincide 16 with their work paper 126 through 136. So let me get 17 to that. The Company is proposing to include \$134,000 18 in advertising expense. And as I look through the work 19 papers, each paper -- each document adds up to the 20 \$178,000 in the per books 2016 accounts. And then if 21 you move -- they move \$43,000 of promotional 22 advertising. But I can't understand the work papers. 23 They're confusing. They don't refer to what the 24 Company's actually proposing to include in rates of 25 \$134,000.	1 A. Yes. 2 Q. It might have been two days ago. Did you take 3 a look at your testimony and figure what that was 4 about? 5 A. Yep. 6 Q. Could you please explain that for us? 7 A. Sure. As I looked through the industry dues, I 8 removed stuff that's not related to industry dues 9 specific or the provision of utility service in 10 Montana-Dakota service territory. The Cavalier Chamber 11 of Commerce is a chamber of commerce. I looked at the 12 backup data, which is work paper K137, and that is the 13 only chamber of commerce dues I removed, and then 14 removing all the other chamber of commerce dues. So in 15 this case, I agree with Mr. Jacobson that I should 16 include another 160 into the Company's industry dues 17 balance. 18 Q. Thank you. And other than the corrections 19 you've made on the stand today, your revenue 20 requirement calculation is included in your exhibits to 21 your surrebuttal testimony; is that correct? 22 A. There's one more change to vehicle maintenance 23 and the gas plant service balance. 24 Q. Sorry I missed that. Please make that for us. 25 A. In response to data requests 218 and 219, I

Transcript of Proceedings Volume 3

6/1/2018

Page 33 (754 - 757)

Page 754	Page 756
1 asked the Company to give me a breakdown of budget 2 allocated plant and actual allocated plant. I did make 3 an adjustment to all the budgets that were higher than 4 the allocated plants. But I did not make adjustments 5 to the budgets that were lower than the allocated 6 plant. So I'm making two adjustments to the budgeted 7 versus allocated plants, and that comes up to an 8 additional increase in the gas plant and service 9 balance of \$14,000. This way I'm consistent across the 10 board making all the allocations in my recommendations 11 and not the budgeted, whether they go up or down, 12 higher or lower, it's consistent. 13 Q. And with those corrections, and as you've 14 testified, your schedules are attached to your 15 surrebuttal testimony, correct? 16 A. Yes. 17 MR. ARMSTRONG: Thank you. I'm going to 18 tender you for Cross-Examination at this time. 19 THE COURT: Mr. Sanderson. 20 MR. SANDERSON: Thank you, Judge. 21 22 CROSS-EXAMINATION 23 BY MR. SANDERSON: 24 Q. Good morning, Mr. Mugrace. Paul Sanderson on 25 behalf of Montana-Dakota Utilities. I'd like to follow	1 disallow Montana-Dakota's incentive compensation 2 program that they've had in place for 20 plus years on 3 an across-the-board 60 percent with respect to every 4 single employee? 5 A. Well, I'm only -- well, disallowing 60 percent 6 of it. I'm allowing 40 percent of it. I'm not 7 disallowing the entire incentive compensation. It's 8 well over a million dollars. 9 Q. Okay. And I apologize, I don't think my 10 question was clear. 11 Every single employee's incentive you're 12 proposing to cut 60 percent? 13 MR. ARMSTRONG: Object as a misstatement 14 of his testimony. 15 THE WITNESS: I'm allowing 40 percent 16 related to what the Company says are customer service 17 goals. So all of that incentive comp will go to the 18 customer service related employees and not to the 19 executives or the higher category of employees. 20 BY MR. SANDERSON: 21 Q. Well, maybe I'll phrase it -- 22 A. But if you want to characterize it as a 60 23 percent cut, yes. 24 Q. Okay. Thank you. Now, you're aware the 25 targets are 50 percent for service and 50 percent you
Page 755	Page 757
1 up with a few questions and try to clarify some things 2 here. 3 You didn't talk about it here, but you have no 4 issue with Montana-Dakota's projected cost of gas and 5 distribution loss factor; is that correct? 6 A. I have no issue. 7 Q. Okay. And the cost of gas used a two percent 8 inflation for the 2018 test year, correct? 9 A. I believe it did. 10 Q. Okay. And you had no issue with the two 11 percent inflation on cost of gas? 12 A. Let me check. Well, I don't see a two percent 13 inflation in the breakdown. I see the commodity 14 charge, projected cost. So I'm fine with that. 15 Q. Okay. You're fine with the two percent 16 inflation? 17 A. Well, I don't know if it's included in the cost 18 of gas. It gives you a distribution adjusted therms, 19 the commodity charge and the projected cost. So if you 20 can show me where the 2.2 percent is located. 21 Q. Now, I'm a little confused about your incentive 22 comp and how you came up with the 60 percent reduction. 23 So I want to walk through this. 24 A. Sure. 25 Q. You want -- you're asking this Commission to	1 said for other. 2 A. Yep. 3 Q. But you know the other is operation and 4 maintenance expenses, correct? 5 A. Could be some leadership goals in there, could 6 be net operating earnings per share, could be 7 increasing the Company's bottom line. 8 Q. And I'm talking the non -- excluding the nine 9 executive or 12 executive positions. Let's just take a 10 customer service representative working in the Bismarck 11 office. You're aware under the plan that 50 percent of 12 their incentive is determined on service goals, 13 customer service goals, correct? 14 A. Correct. 15 Q. And you're aware the other 50 percent is 16 meeting operation and maintenance expenses? 17 A. Okay. 18 Q. Correct? 19 A. Correct. 20 Q. Okay. Now, you said you came up with the 60 21 percent reduction -- did you use some formula to do 22 that? 23 A. Well, I did -- I did it in two parts. 24 Q. Okay. Because let's look at your direct 25 testimony. On page 11, you say the 60 percent

Page 758	Page 760
1 reduction incentive compensation and bonuses are 2 consistent with the Commission decision in a 2010 3 electric settlement. 4 A. Yes. 5 Q. Okay. You're aware the order in that case 6 doesn't address any issue or call out any incentive 7 plan? 8 A. Well, that's probably information I got from 9 Advocacy Staff and discussions with them. 10 Q. Well, okay, and that's what I want to be clear 11 here. When you say this, you're aware in that case, 12 like this case, Montana-Dakota Advocacy Staff says we 13 want just an across-the-board 60 percent. Is that your 14 understanding? 15 A. Not really. 16 Q. Okay. Well, are you aware of -- did the 17 Company agree to that? Is that what you're trying to 18 represent? 19 A. I think it was a settlement, and I don't think 20 there was specifically stated in an order. 21 Q. Okay. And so I think we're in agreement on 22 that, because I'm not aware of any order where this 23 Commission has ever approved a 60 percent 24 across-the-board disallowance of incentive 25 compensation. Are you aware of it?	1 the incentives exceed the target, then Montana-Dakota 2 has to pay incentives and they're not recovering any 3 expense up to that amount. Would you agree with that? 4 A. They're not recovering any expense up to that 5 amount. 6 Q. Okay. So I mean, that goes both ways, correct? 7 A. It does. 8 Q. Okay. And are you -- that's why they set a 9 target for this incentive program for a 2018 test year. 10 That's your understanding? 11 A. Yes. 12 Q. Okay. And you're also aware from your review 13 that in the past three years there was a year where 14 they paid no compensation, there was a year that they 15 were under target and a year they were over target. Is 16 that your understanding? 17 A. That's my understanding. 18 Q. Okay. You were asked the question about the 19 effect of a 9.5 ROE and what that would do to your 20 analysis. 21 A. Yes. 22 Q. Your original analysis did not include a 9.5 23 ROE? 24 A. My rebuttal testimony did not include 9.5, it 25 included 9.23.
Page 759	Page 761
1 A. I'm not aware of it. 2 Q. Okay. You're aware -- the Company provided you 3 2013 Aon Hewitt survey of an independent third party 4 evaluating their incentive compensation program? 5 A. Yes. 6 Q. Okay. You're also aware in your review that in 7 the industry, incentive compensation like this is 8 standard practice? 9 A. It is. 10 Q. Okay. Now, you were asked -- or you gave some 11 testimony that if the target is not reached -- well, 12 let me back up. 13 You understand that Montana-Dakota's offered a 14 projected 2018 test year for these expenses, correct? 15 A. Yes. 16 Q. Okay. And in doing that, they set a target 17 amount for incentive compensation? 18 A. Yes. 19 Q. And you gave the testimony if Montana-Dakota 20 does not meet that target, then the customer still have 21 to pay for it; that was your testimony? 22 A. If they don't meet that target, but they get 23 the money anyway, the customer has to pay for something 24 that they didn't really receive. 25 Q. Certainly. And that's why we set a target. If	1 Q. Okay. But now are you saying this Commission 2 should approve a 9.5 ROE? 3 A. If that's the recommendation of Dr. Griffing 4 and if he's updating his testimony to include a 9.5, 5 then that would be my recommendation to adjust the ROE 6 to 9.5 to get another quarter million dollars of 7 revenue requirement. 8 Q. Okay. And your analysis of the effect of the 9 ROE is based on Dr. -- you use Dr. Griffing's expertise 10 on the ROE analysis to reach that? 11 A. Yes. 12 Q. And it's your understanding Dr. Griffing is now 13 supporting a 9.5 ROE? 14 MR. ARMSTRONG: Object; it's a 15 misstatement of Dr. Griffing's testimony. 16 MR. SANDERSON: I asked about his 17 understanding. 18 THE COURT: You can ask him that. 19 THE WITNESS: My understanding if Dr. 20 Griffing did recommend a 9.5 ROE, my recommended 21 revenue requirement would increase by \$250,000. 22 BY MR. SANDERSON: 23 Q. Okay. And I missed a question here on 24 incentive compensation. You feel you're in a better 25 position to determine the appropriate amount of

Transcript of Proceedings Volume 3

6/1/2018

Page 35 (762 - 765)

Page 762	Page 764
1 incentive compensation for Montana-Dakota Utilities 2 employees than Ms. Kivitso and Mr. Kaiser who do this? 3 A. I look at the metrics, the performance targets 4 and the plans. I have no agreement that the plan is 5 measurable and it's reasonable based on Company-wide 6 industry surveys. But I haven't seen anything from the 7 Company that shows me that the goals were met. Where 8 are the metrics? Where are the service appointments 9 that the Company resolved? Where are the calls 10 answered in a reasonable amount of time? Where are the 11 leak odor responses? Where are the customer billing 12 complaints resolved? Where are those metrics? I don't 13 see them. How can I evaluate something if I don't see 14 anything? How is it executed and what were the 15 results? 16 Q. Yeah. Okay. And let's break your answer down 17 a little bit, Mr. Mugrace. You just testified you have 18 no issue with the reasonableness of their employee 19 compensation plan? 20 A. The only issue I have is the shareholder -- the 21 rate payers should not pay for the entire cost of the 22 incentive compensation. If the Company wants to 23 provide incentive compensation, I'm okay with that. 24 The shareholders should borne the cost of that 25 incentive compensation, not all -- not the shareholders	1 Q. And in fact, one of the things you requested 2 was the incentive plan? 3 A. Yes. Right here. 4 Q. And that was provided to you by the Company. 5 Did you request any information that you weren't 6 provided by the Company? Did they not respond to any 7 of your requests? 8 A. Let me check. 9 Q. And maybe, Mr. Mugrace, I could help you a 10 little bit. You reviewed the surrebuttal testimony of 11 Nicole Kivitso -- or excuse me, of Travis Jacobson? 12 A. Yes. 13 Q. And in there, he provided the survey results? 14 A. The survey results. 15 Q. Okay. Now, in addition, Mr. Mugrace, I have 16 three binders here of all the data that the Company 17 provided in this case to discovery requests by Advocacy 18 Staff. So if you need any information out of there, 19 please let me know. 20 A. All right. If you can pinpoint me to a place 21 where the Company has all these metrics and whether 22 each employee achieved those metrics and what was the 23 functions. That's what I'm getting at. 24 Q. Well, let's talk about what you did. With 25 respect to dues, your testimony was you can't be
Page 763	Page 765
1 100 percent. 2 Q. Now, you said you don't know how the service 3 component is met? 4 A. No, I don't see any metrics. 5 Q. Okay. Aren't you aware of the metrics that 6 they need to be within, is it the top 30 -- the top 30 7 survey of the -- I think it's 81 utilities, and they 8 must be in the top 30 to -- 9 A. That's a survey. Show me the actual results. 10 Show me a document that says, these were met because 11 the Company did this, the Company employees did this, 12 this, this, this. 13 Q. And we can get there, Mr. Mugrace. But you 14 said you don't understand what -- how the targets are 15 met. And I'm asking you, you reviewed the plan, and 16 the customer service target is met by being in a 17 certain percentile in an independent third party survey 18 of similar utilities with respect solely to customer 19 service? 20 A. It's a survey. Show me the results. It's a 21 survey. It's not actual results. It's a survey. 22 Q. And I want to be clear here, Mr. Mugrace. You 23 certainly worked with Staff and asked for a significant 24 amount of data from the Company? 25 A. Yes.	1 expected to go through ten pages of documents. That's 2 what you said? 3 A. Well, I did go through them. I just didn't 4 understand them. I did go through them. 5 Q. Okay. And you said you should have asked for 6 more information there? 7 A. Correct. I'm mistaken. Yes, I should have 8 asked for more. 9 Q. And just so we're clear, you're being paid by 10 the filing fee that Montana-Dakota filed in this case? 11 A. Yes, I am. 12 Q. Okay. And so ultimately the costs that are 13 passed to rate payers are paying you for your analysis? 14 A. Yes. 15 Q. Okay. And that's part of the cost of this rate 16 case? 17 A. Yes. 18 Q. Okay. Now, with respect to your calculation of 19 the SSIP -- you didn't personally go through the 20 projects; am I correct? 21 A. No, Dr. Pavlovic went through the projects. 22 Q. Okay. But you're taking -- for purposes of 23 your calculation of revenue in this case, you removed 24 every single dollar that is to be spent on the 2018 -- 25 the seven 2018 improvement projects in Cleveland,

Transcript of Proceedings Volume 3

6/1/2018

Page 36 (766 - 769)

Page 766 1 Taylor, New Salem, Baldwin, all those seven projects, 2 you're removing every penny the Company is going to 3 spend? 4 A. That relate to the SSIP. 5 Q. Okay. But my question is a little different. 6 With respect to your calculations of revenue in this 7 case, you're not giving the Company credit for one 8 penny of the 2018 projects? 9 A. I am giving them credit. 10 Q. You're including those in the revenue? 11 A. The only changes I made to the Company's 12 average rate base balance and gas service -- gas plant 13 and service is I removed the other additions that had 14 to do with vehicles and maintenance, I removed the 15 vehicles averaged them out, I removed the airplane. 16 Everything else I have included. I did not include the 17 distribution 2018 additions, but that reflects the SSIP 18 projects. I did not include them. Everything else I 19 didn't make any adjustments to. 20 Q. Yeah, and I think we're miscommunicating. And 21 so I'll apologize, maybe my question wasn't clear. I'm 22 just focusing on those seven SSIP projects. Am I 23 correct, you're not giving the Company any recovery for 24 the \$5.6 million of projected spending for those seven 25 projects?	Page 768 1 A. Show me in this proceeding. Show me now. You 2 had the witnesses on the stand. They could have 3 provided it. 4 Q. Okay. So if you get -- if you get information 5 from the Company showing that they do an analysis of -- 6 for airplane use -- 7 A. Comparison use. 8 Q. -- for comparison use versus -- the Company 9 charter flight versus the cost to fly commercial, then 10 you would possibly agree to put the airfare cost back 11 in? 12 A. I would like to review the information and make 13 a recommendation on any adjustments I have. The answer 14 is yes. 15 Q. Mr. Mugrace, are you going to be around this 16 afternoon? 17 A. Before 4:00, then I'll be flying to 18 Minneapolis. 19 Q. Okay. I hope you're still here. 20 A. It's all evidence on the record. Provide the 21 evidence and we can evaluate it. 22 Q. And that's why I say I hope you're still here. 23 With respect to the aircraft, one of the things 24 you said is the employees can take cars, buses or 25 trains.
Page 767 1 A. Based on the recommendation of Dr. Pavlovic, 2 the answer is no, I'm not giving any recognition. 3 Q. So the answer is yes to my question? 4 A. I'm not giving any recognition to that. 5 Q. You've removed all 5.6 million? 6 A. Well, the average is 2.7, so the answer is yes. 7 I averaged it out, because you averaged it out. The 8 Company averaged it out. 9 Q. Thank you. Let's talk about the aircraft. 10 A. Sure. 11 Q. You -- and again, we're focusing on a 2018 test 12 year, correct? For your analysis? 13 A. Yes. 14 Q. So when the case was filed, it would be future 15 that they're requesting for, correct? 16 A. The case was filed in July 2017, so they're 17 requesting 2018 test year. 18 Q. Okay. 19 A. December 31st. 20 Q. And your criticism is they did not show you 21 specific costs for proposed airfare in 2018? 22 A. Yeah. 23 Q. And they should have provided in July 2017 what 24 they were -- where they were expecting to travel to in 25 2018?	Page 769 1 A. Yes, I do. 2 Q. Okay. So to go out to a utility meeting in 3 Meridian, Idaho, we should be sending Nicole and the 4 team on train is your testimony? 5 A. The train -- I go to Boston all the time by 6 train. It's 500 miles. 7 Q. Okay. I just want to make sure I understand? 8 A. It's cheap. 9 Q. Yep. So along that lines, what you're saying 10 is Staff's kind of taking the position that an entity 11 should not use a private plane for travel in North 12 Dakota? 13 A. There should be other means of travel. I mean, 14 how can a rate payer say, oh, my gas company is using 15 airplanes to go back and forth to meetings. That's 16 ridiculous, and I'm paying for that. 17 Q. And certainly I think one of the things you 18 said with respect to travel in North Dakota, people 19 should be driving? 20 A. Well, it's only 400 miles across. It's not 21 that far. 22 Q. And similar to rate payers, North Dakota tax 23 payers certainly shouldn't be paying for private 24 airfare for state agencies then under your -- for plane 25 travel?

Transcript of Proceedings Volume 3

6/1/2018

Page 37 (770 - 773)

Page 770	Page 772
1 A. We're talking about this issue, not other 2 issues. We're talking about MDU not state agencies, 3 it's a different issue. 4 Q. Okay. So some organizations it would be fine 5 for, but others not? 6 A. Yeah, it's rate payer money. 7 Q. Okay. 8 A. It's rate payer money. Whatever the state 9 wants to do, that's up to them. The governor can take 10 care of that. 11 Q. Are you aware, Mr. Mugrace, of any time where 12 the -- where the Company's using the airplane 13 improperly? 14 A. I have not noticed that. But all I know is 15 it's used for the traveling back and forth for 16 directors meetings and other board of executive 17 meetings. 18 Q. Okay. 19 A. I didn't find it being improper, it's just the 20 cost that's my problem. It's the cost. Show me a 21 comparison of costs. 22 Q. Now, you explained why the loss of employee 23 housing for the Bakken should not be included in the 24 calculation? 25 A. In rate base.	1 inclusion of inflation for the projected 2018 test year 2 for subcontract labor is improper and should be 3 disallowed? 4 A. Anything that the Company used a 2.2 percent 5 inflation factor should be removed. 6 Q. Okay. And I think one of the ones on your 7 direct testimony, page 17, you're seeking the removal 8 of \$143 for the software maintenance cost increase? 9 A. If it's a 2.2 percent inflation increase 10 embedded in that, the answer is yes. 11 Q. Okay. And you're aware these -- this 2.2 was 12 just added to certain O&M expenses? 13 A. Yes, not to all. Certain O&M expenses. 14 Q. Okay. Certain expenses that would be difficult 15 to calculate the complete volume of each and every 16 entry? 17 A. It's tedious. 18 Q. Okay. Certainly more than having to go through 19 ten pages of documents? 20 A. It's tedious. 21 Q. Okay. 22 A. I have another response on that. The Company 23 filed their rate case in July of 2017. They used per 24 books 2017, which is the actual amount. They used the 25 projected 2017, projected 2018. Here we are June 2018.
Page 771	Page 773
1 Q. In rate base. 2 Did you make a corresponding calculation to 3 remove the profit from the sales of buildings? 4 A. No, I did not, because I didn't know the whole 5 issue on that. The gain on sale of buildings was 6 \$106,000 reduction, which actually benefits the 7 customer. But I don't know the issue -- the whole 8 issue on that. I don't know if the Commission approved 9 that previously. I'm not aware of that. But in this 10 case, gains and losses should be moved to the income 11 statement. 12 Q. Okay. And just so we're clear, and you said 13 you don't know how the Commission has treated this 14 issue previously? 15 A. If they did. 16 Q. Okay. You're certainly aware that they've 17 addressed this issue -- or this issue is -- these exact 18 housing units are in Montana Dakota's current electric 19 rates? 20 A. I'm aware of that. 21 Q. Okay. But just so we're consistent, if you're 22 going to, as you say, exclude the losses, you should 23 also exclude any gains? 24 A. They should be moved to the income statement. 25 Q. Okay. And you believe the 2.2 percent	1 I haven't seen any updates from the Company providing 2 the 12 and 0 projected updates that shows that the 2.2 3 percent inflation increase or any other costs have been 4 realized. 5 Q. Well, certainly. Now you're getting into legal 6 areas, Mr. Mugrace. We're using a projected test year, 7 and you're aware that's authorized by the North Dakota 8 legislature 69-04 -- 0504.1? 9 A. Correct. 10 Q. You're aware of that? 11 Okay. And, you know, we've got to be very 12 careful. Have you reviewed the North Dakota Supreme 13 Court precedent on that? 14 A. I have. 15 Q. Okay. 16 A. But if you're updating costs and you're making 17 adjustments to costs, shouldn't you be using most 18 updated information? When the Company filed its 21 19 percent federal tax rate update, shouldn't those costs 20 have been reviewed also? 21 Q. Yeah. So for example, we should be coming in 22 with the receipt for a hammer bought in February of 23 2018 to update that? 24 A. No, just show me -- you have the annual reports 25 have been filed in 2017 that provides actual cost in

Transcript of Proceedings Volume 3

6/1/2018

Page 38 (774 - 777)

Page 774 1 2017. Update your projections. 2 Q. Mr. Mugrace, I want to move now to the 3 advertising. And I believe you said, you know, the 4 Company papers showed -- they had approximately 170,000 5 in those type of expenses. But prior to the case they 6 removed 43,000 of promotional -- they didn't seek to 7 include promotional advertising charitable 8 contributions? 9 A. They removed them. 10 Q. Okay. 11 A. In the 2017 and 2018 projected test year. 12 Q. Yeah. So they're talking about certain 13 advertising that they do. And you're seeking a 50 14 percent across the board disallowance? 15 A. Yes. 16 Q. Okay. And that would include a 50 percent 17 reduction in the 811 ads that the Company set? 18 A. That's including advertising. Show me the 19 documents. Break down these ten work papers clearer so 20 I can see what that \$34,000 is composed of. 21 Q. Okay. Did you ask for that information? 22 A. Like I said previously, I did not. My mistake. 23 Q. Well, and -- 24 A. I tried blowing up these PDF files knowing 25 maybe I would find some information in there, but	Page 776 1 benefit of what organizations the Company should belong 2 to? 3 A. I make recommendations. I don't tell the 4 Commission and state to do anything. I make 5 recommendations based on the evidence provided to me in 6 the record. 7 Q. And Mr. Mugrace, your recommendation is that 8 you're in a better position than Montana-Dakota's 9 management team to determine what organizations the 10 Company should belong to? 11 A. Well, if it doesn't look like industry dues, 12 why should it be included? What's this Max Service 13 Civic Club, it has to do with recreational activities. 14 I took it out. 15 Q. And Mr. Mugrace -- and I'm sorry, maybe it was 16 a poor question that I asked. But my question simply 17 was -- 18 A. It's a commercial club. I mean, what does that 19 have to do with -- 20 Q. I'll try one more time, Mr. Mugrace to ask this 21 question to you. Your testimony is you're in a better 22 position than the management of Montana-Dakota 23 Utilities to determine what organizations the Company 24 should belong to, to benefit customers in North Dakota? 25 A. I think I'm in a good position to determine
Page 775 1 they're all over the place. 2 Q. Now -- 3 A. If you can provide me a revised data request. 4 Q. With respect to industry dues, Mr. Mugrace, 5 you're seeking to cut \$6,844 of industry dues? 6 A. That is correct. 7 Q. And you believe there's no benefit to the 8 Company of being part of the Utility Solid Waste 9 Activities Group as indicated on your direct testimony, 10 page 45? 11 A. How does it provide safe, adequate and proper 12 gas service to customers through that? 13 Q. And you've -- okay. And that's just where I'm 14 getting at. Also, there's no customer benefit for 15 being a member of the Consortium for Energy Efficiency 16 because you cut that due out? 17 A. What benefit does it have to gas service 18 customers in North Dakota? 19 Q. To be part of a Consortium of Energy 20 Efficiency? 21 A. What benefit does it have? 22 Q. Okay. And that's what I'm getting at. So 23 you're telling this Commission, you as a paid 24 consultant is in a better position than 25 Montana-Dakota's management team to determine the	Page 777 1 what should be included in rates to be covered by rate 2 payers, but the Company has the -- the Company 3 determines what industry dues they need to pay to 4 provide safe, adequate and proper service and benefits 5 customers. I think the Company is in a better 6 position. I just evaluate everything and make my 7 recommendation. I evaluate it. And let the Commission 8 determine whether my evaluation is correct or not 9 correct. 10 Q. Okay. And I just want to be clear. I mean, on 11 behalf of Advocacy Staff, are you taking the position 12 that energy efficiency is not important in this case? 13 A. What does it have to do with gas service, 14 energy efficiency? I mean, what benefit does it have? 15 Q. Maybe Mr. Coffman will be in a better position 16 to address that with his clients? 17 MR. ARMSTRONG: Judge, I think we're 18 getting argumentative at this point. 19 THE COURT: Yeah, I agree. Argumentative. 20 Sustained. 21 MR. SANDERSON: Mr. Mugrace, I have no 22 further questions. Thank you for your time. 23 THE WITNESS: Thank you. 24 THE COURT: Okay. Mr. Coffman. 25 Is he gone? Okay. Yep. I know he had to

Transcript of Proceedings Volume 3

6/1/2018

Page 39 (778 - 781)

Page 778 1 leave at some point. 2 Major. 3 MAJOR UNSICKER: No questions, sir. 4 THE COURT: Ms. Jeffcoat-Sacco. 5 MS. JEFFCOAT-SACCO: I don't have any 6 questions. 7 THE COURT: Commissioner Kroshus. 8 9 EXAMINATION 10 BY COMMISSIONER KROSHUS: 11 Q. Okay. I'll keep this brief and I think it will 12 be a little more pleasant. 13 A. I like animation. It gets my blood going. 14 THE COURT: He's from Jersey. 15 BY COMMISSIONER KROSHUS: 16 Q. I mean, there are a lot of things that you've 17 noted as related to cost of inflation, the SSIP 18 program, the comp -- the incentive comp. And just to 19 really bring this together, your biggest issue is lack 20 of detail supporting evidence; is that fair? 21 A. Not -- not complete detail. It's not lack -- 22 they provided some information, but it's the 23 completeness of it. 24 Q. Okay. 25 A. It's the completeness of it.	Page 780 1 Q. Okay. Thank you. And I think I -- just to 2 break the SSIP out just because that is a considerable 3 amount in all of this, do you view that as a regular -- 4 a normal cost of doing business, running a system, 5 maintaining a system, and not as a rider or a tracker 6 or whatever else you might want to call? 7 A. The Company's proposing to include the SSIP as 8 a tracker. I don't think -- they're proposing to 9 include it in base rates, but they want to continue 10 that investment as a tracker. Let the Company just put 11 it in base rates and provide -- and show me the 12 documents, show me the plan. 13 But in response to 252, the response was, well, 14 the decision has not been made in regards to which 15 specific parts of the plan will fall under each other, 16 evaluations continue to determine how best to manage 17 the effected plan. So show us the plan, show us the 18 detail, and we can get there. 19 Q. Okay. 20 A. But if there's no plan, there's no detail, how 21 can you evaluate it? 22 Q. Right. 23 COMMISSIONER KROSHUS: No other questions. 24 Thank you. 25 THE COURT: Chairman Christmann.
Page 779 1 Q. On the comp plan, it's not so much the 2 amount -- I think you indicated that's -- because this 3 is important for me to consider. Well, two parts. 4 One, the amount is reasonable; is that a fair 5 statement? 6 A. Well, the plan is reasonable. I just want to 7 know what benefit the customers get out of a million 8 dollars of incentive compensation. 9 Q. So it's about who pays, the rate payer or the 10 shareholder? 11 A. Yes. 12 Q. Okay. 13 A. Who should pay for that million dollars in 14 incentive compensation. 15 Q. Right. 16 A. Or should it be a balance between shareholder 17 and rate payer money. 18 Q. Okay. On the inflationary part, have you ever 19 -- in other cases, have you ever considered the 20 inflationary factor? 21 A. No. In cases in New York, New Jersey, Maryland 22 and Pennsylvania, I've all recommended removal of 23 inflation factors. 24 Q. Okay. So it's consistent. 25 A. And in Maine.	Page 781 1 2 EXAMINATION 3 BY CHAIRMAN CHRISTMANN: 4 Q. Are the organizations to whom those Company 5 dues would be paid listed in your testimony or in your 6 working papers? 7 A. The organizations that I removed are on page 8 45. You have to include the Cavalier Chamber of 9 Commerce. I included that back in. 10 Q. I'm looking at your surrebuttal. Are you 11 talking about the -- 12 A. Direct. I'm sorry. 13 Q. -- direct? 14 Well, I'll find it later. And if not, I'm sure 15 Staff can help me. I don't need it for any other 16 questions, I just wanted to be able to look at it 17 later. 18 For the O&M costs, the smaller and midsized 19 ones, Mr. Sanderson used the hammer for the example. 20 If not just setting kind of an across the board assumed 21 inflationary rate, how do they plan for that? Or do 22 they plan that expenses -- that there will be no 23 inflation on those types of things? 24 A. You can trend the expenses. Go back three or 25 four years, 2014, 2015, 2016, see what costs have

Page 782 1 increased and trend it upward. A trend is good because 2 you can average out the trend. Or if any of your 3 vendors have escalation clauses or annual increases, 4 maybe the vendors have information saying oh, in the 5 next three years all costs are going to go up five 6 percent. That's known and measurable because it comes 7 from a vendor. To do a blanket 2.2 percent inflation 8 is not known and measurable. 9 Here we are in June of 2018, the Company filed 10 their filing a year ago. I believe that the Company 11 should update its 12 and O to see what those 2017 costs 12 are. You have estimated costs and actual costs in 13 2017. 14 Q. So if -- 15 A. And they're estimated. Show me if the 16 estimates are true. 17 Q. So if in their application, or in their working 18 papers to you, if they had shown several years of these 19 expenses and the costs had increased on average 2.2 20 percent, then you'd have found this acceptable? 21 A. Yes. But just to use a blanket inflation is 22 not acceptable. Show me the results from the past. 23 Historic is a good measure going forward. But show me 24 if the costs have been increasing steadily, and I 25 wouldn't have any problem with that.	Page 784 1 testified, according to my notes, and I might have 2 these slightly wrong, but I wrote down that on the 3 executive team 50 percent of their incentive pay was 4 based on earnings and 50 percent was ROIC. So that 5 would be basically 100 percent of their criteria in my 6 opinion for incentive pay is based on kind of 7 stockholder benefits? 8 A. It appears that way. 9 Q. So you could argue that all of that should be 10 covered by the shareholders? 11 A. I know the -- the I know certain employees of 12 MDU do provide customer service, and they do meet the 13 metrics. So I agree that not all of it should be 14 removed, only a portion of it. 15 Q. So I'm just talking about the executive team 16 here. 17 A. The executive team. 18 Q. Yeah, that's their criteria. And then for the 19 99 percent of the rest of the staff, 50 percent of 20 their pay -- their incentive pay is based on O&M, 21 achieving the O&M targets, and 50 percent on customer 22 service. 23 A. Yes. 24 Q. Are the O&M targets clear? 25 A. To me, O&M --
Page 783 1 Q. Okay. And now I want to go to a very basic 2 question. On page 2 of your surrebuttal? 3 A. Yes. 4 Q. Starting way up at the top, I've calculated a 5 revised revenue requirement of \$867,496 over current 6 rates. Current rates being the last rates that came 7 out of the last rate case? Or is it current rates that 8 are paid with interim rates right now? 9 A. The current rates in this filing as shown on my 10 schedule DMSUR-1. The \$112,136,630. That's current 11 rates as the July -- it's the July 2017 filing that has 12 not changed. 13 Q. Well, we have interim rates right now. But 14 you're talking about the rates as of last -- 15 A. As filed. Yes, as filed, correct. 16 CHAIRMAN CHRISTMANN: Okay. No other 17 questions. Thank you. 18 THE COURT: Commissioner Fedorchak. 19 20 EXAMINATION 21 BY COMMISSIONER FEDORCHAK: 22 Q. Just a couple questions so hopefully we won't 23 be too much longer before we wrap up this witness. 24 I want to just talk a little bit about the 25 incentive pay issue. When Mr. Kaiser testified, he	Page 785 1 Q. The metrics that you had talked about? 2 A. O&M targets are like increasing net operating 3 earnings per share, getting the operating expenses 4 lower to increase the income, which will give you more 5 dividend earnings per share and it will increase the 6 bottom line. That's O&M targets. 7 Q. So shareholder benefits then? 8 A. Yeah, it's increasing the Company's profile. 9 Q. So I'm curious, since you can -- you can -- if 10 you wanted to be assigning the costs that are 11 shareholder benefits to the shareholders, couldn't you 12 recommend 100 percent of the executive team incentive 13 pay goes to the shareholders and 50 percent of the rest 14 of the staff goes to shareholders because 50 percent is 15 O&M which gets to improving earnings and 50 percent is 16 customer service which gets to the benefits to the 17 customers? 18 A. If I had the documentation. I didn't see any 19 documentation that reflects the incentive compensation 20 that was actually paid by the employees. 21 Q. Okay. So that gets me to my next point. But 22 just from a formula standpoint, from a formula 23 standpoint, if that's what their HR expert witness 24 said, would that be a more fair approach? 25 A. It will be helpful.

Transcript of Proceedings Volume 3

6/1/2018

Page 41 (786 - 789)

Page 786	Page 788
1 Q. Versus 60 percent across the board? 2 A. It will be helpful. 3 Q. Okay. And then when you get to the 4 implementation, which is the second piece that I want 5 to talk to you about on the incentive pay. So 6 you're -- if I'm understanding this correctly, when 7 employees fail to meet the target, there's no incentive 8 payment paid? 9 A. Yes. 10 Q. And so then that money is retained by the 11 Company? 12 A. Yes, not paid out to the employee. 13 Q. And is that the information you haven't 14 received, like what -- how much of that was paid or not 15 paid in previous years? Is that -- 16 A. Yeah, I didn't see anything in the data request 17 that show, like, a schedule of all the employees that 18 show, you know, employee A, base salary is 50, targeted 19 goal was 5,000, achieved goal, \$10 or \$5, whatever, and 20 actual salary. I don't see those metrics. 21 Q. Okay. So in other jurisdictions or other 22 utilities that you are a part of on rate cases, how is 23 that handled? I mean, if the rates are going to 24 reflect some component of incentive pay, it seems like 25 there's always going to be that risk that if they don't	1 A. Okay. I'm there. 2 Q. So distribution 2018 additions, you reduce that 3 by 2.7 million. Is that the SSIP? 4 A. Yes. If you look at the Company's statement L, 5 page 8 of 22, it specifically shows Systems Safety and 6 Integrity main replacements and service line 7 replacements. And the average is \$2.7 million. 8 Q. What does the average mean? Average of what? 9 A. Taking a \$2.8 million and a \$2.6 million and 10 average out the cost. Because they use average 11 balance, so their balance is actually half of what 12 their additions are, the 50 percent. 13 Q. Oh. Why? 14 A. Because they have plant and service in 2017, 15 and plant and service in 2018, and then the average the 16 two balances to get an average balance. 17 Q. Okay. So you're not taking out the full 5 18 million? 19 A. Well, yes, I am. Because if you divide it by 20 two, it's -- can I show you? 21 COMMISSIONER FEDORCHAK: Is that? 22 THE COURT: Go ahead. 23 BY 24 BY COMMISSIONER FEDORCHAK: 25 Q. Okay?
Page 787	Page 789
1 reach it that the money is going to be retained by the 2 Company? 3 A. In my rate case proceedings in Maryland, 4 Pennsylvania, it's based on just customer service 5 benefits. And I recommend that anything that's related 6 to shareholder benefits be removed from incentive 7 compensation. In New Jersey there is no incentive 8 compensation at all. It's zero. 9 Q. Okay. 10 A. It's the shareholder bears -- the shareholder 11 bears the full 100 percent of the incentive 12 compensation that it wants to pay its employees. 13 Q. Okay. I think that is enough on that issue 14 then. 15 On the revenue requirement for the 2018 16 projects. I think I found that in some of your work 17 papers on your surrebuttal. Give me one second. And I 18 just want to clarify the amount because there's like 19 this \$5 million amount and a \$3.3 million amount, and I 20 don't know where those are coming from. So let's see. 21 Which schedule would those be? Is it gas utility plant 22 service? 23 A. It's schedule DMSUR-17. 24 Q. Okay. Yeah. So the 2018 additions -- I'll let 25 you get there first.	1 A. This is the \$2.8 million dollars. This is the 2 2.6, that gives you the 5.4. 3 Q. Those are for different years? 4 A. No, projected 2018. 5 Q. So why is there two sets? 6 A. Because one is systems safety main replacement 7 and one is system safety line replacement. 8 Q. Oh, okay. Got it. 9 A. The two equal \$5.4 million. And the way they 10 calculate the average plant balance, they take these 11 two and divide it by two, because they're assuming that 12 the plant and service is going to be placed in service 13 evenly between 2017 and 2018. 14 Q. Okay. So where is the other amount taken out 15 then, the other adjustment? 16 A. The -- 17 Q. Is it at the bottom? 18 A. Anything that has to do with vehicle 19 replacements, work equipment, that's all like trucks 20 and machinery. 21 Q. What about the other half? 22 A. That's not -- that's just -- that's -- there is 23 no other half, that's just removed. 24 COMMISSIONER FEDORCHAK: Okay. I'll have 25 to talk to Staff, I'm sure they can clarify for me.

Transcript of Proceedings Volume 3

6/1/2018

Page 42 (790 - 793)

Page 790	Page 792
1 Jerry probably can. 2 All right. I think that concludes my 3 questions. Thank you. 4 THE COURT: Okay. Mr. Armstrong. 5 MR. ARMSTRONG: No questions. 6 THE COURT: Mr. Sanderson. 7 MR. SANDERSON: Thank you. 8 9 RECROSS-EXAMINATION 10 BY MR. SANDERSON: 11 Q. Mr. Mugrace, just on that SSIP issue, you're 12 not taking issue with any of the main and service 13 replacement prior to 2018 in this case? 14 A. No. 15 Q. Okay. So the SSIP program in Richardton in 16 2017, you're fine with? You're not calling that out? 17 A. If it's not in my adjustments, no. 18 Q. Okay. And just explain to the Commission how 19 you distinguish to say the 2017 Richardton main and 20 service replacement project from the 2018 Cleveland or 21 Barlow projects? 22 A. Well, the 2017 projects are in service, they're 23 used and useful, so that should be part of the rate 24 base. 25 Q. Okay. So if they're used and useful they	1 A. Yes. 2 Q. Okay. And you're disallowing them because the 3 Company identified them as SSIP? 4 A. Plus the Company has not made any specifics 5 regarding to which plans are evaluated, determined how 6 best to manage the implementation of the plan. 7 Q. Okay. 8 A. It's part of a plan. 9 Q. You didn't hear Mr. Darras's testimony? 10 A. Not completely. 11 Q. Okay. And would this be another situation 12 where you feel you're in a better position than the 13 engineers and operations executives at Montana-Dakota 14 to determine the reasonableness and prudence of gas 15 infrastructure replacement projects? 16 MR. ARMSTRONG: Judge, I'm going to object 17 for two reasons. One, it's argumentative. Two, this 18 witness specifically testified on those 2018 projects 19 he's relying on Dr. Pavlovic. It's not his substantive 20 area. He's taking the recommendation of Dr. Pavlovic. 21 THE COURT: Sustained. 22 BY MR. SANDERSON: 23 Q. Okay. Setting aside that question, just so 24 we're clear, you're removing the 2018 projects 25 completely that are proposed to be in rate base?
Page 791	Page 793
1 should be included? 2 A. At 2018, you're looking at past cost, so that's 3 in there. 4 Q. Are you familiar -- 5 A. These haven't been included in rates yet. 6 Q. Well, and -- certainly. One of the things you 7 said is these projects, you know, should not be in a 8 tracker, should be in rate base? 9 A. Put these in rate base. 10 Q. Yeah. Well, that's what the Company's 11 proposing is to put these in rate base. 12 A. But then eventually use it as a tracker. But 13 these two -- 14 Q. Well -- 15 A. But these two projects, according to your 252, 16 they haven't been evaluated yet, it's still under 17 review. It's June. 18 Q. Well, and -- certainly. And I want to back up 19 just so -- you said -- because you say put these in 20 rate base. Now, there's two -- and we've been through 21 this. You've been in the testimony. I just want to 22 focus on the 2018 projects, not the 2019 that are 23 proposed to be in a future tracker, and 2019 to 2022. 24 Just the 2018. Those are being requested to be in rate 25 base by the Company, correct?	1 A. Related to the SSIP projects. 2 Q. Okay. 3 A. Based on Dr. Pavlovic's recommendation. 4 Q. Certainly. And one of the things is they're 5 not used -- or they're not used and useful right now? 6 A. And there's no plan. According to your data 7 response 252, where is the plan? 8 Q. Have you -- did you review Mr. Darras's 9 rebuttal testimony? 10 A. No. 11 Q. Okay. You're familiar with the Doctrine of 12 Imminent Use in rate design and future test years? Are 13 you? 14 A. Yes. 15 Q. And you're aware North Dakota has adopted or 16 recognized the Doctrine of Imminent Use? 17 A. Okay. 18 Q. And so projects that intend to be completed and 19 put in during the test year should be considered used 20 and useful for purposes of calculating rate base? 21 A. Correct. 22 Q. Okay. And so if certain projects are imminent 23 and expected to be completed, they're appropriately to 24 be included in rate base under the Doctrine of Imminent 25 Use?

Page 794 1 A. Have these projects been started yet? 2 Q. You've heard -- 3 MR. ARMSTRONG: Judge, here's -- I'm going 4 to object here. I mean, this is beyond this witness's 5 scope. It's also missing the prudence standard, which 6 is required. It's not this witness. 7 THE COURT: Sustained. 8 MR. SANDERSON: Yeah. And Judge, just to 9 respond to the objection, I'm not going into the SSIP. 10 I'm going into the treatment of it for accounting 11 purposes of rate base. 12 MR. ARMSTRONG: That's a legal issue, Your 13 Honor, and we can talk about the law later. Everything 14 he just asked him is a legal standard. 15 THE COURT: I'm going to sustain the 16 objection. 17 MR. ARMSTRONG: Thank you. 18 BY MR. SANDERSON: 19 Q. You -- just briefly with respect to inflation. 20 So your criticism of using the inflation standard is 21 you would rather see an actual projected of where the 22 expenses have been rather than using a known recognized 23 and published inflationary standard? 24 A. That's just a blanket type of increase, it's 25 just like -- it should be more like weather	Page 796 1 THE COURT: Ms. Jeffcoat-Sacco. 2 3 RE CROSS-EXAMINATION 4 BY 5 BY MS. JEFFCOAT-SACCO: 6 Q. I just have one question, and I don't want it 7 to -- I know everyone wants to get out of here for 8 lunch. 9 But I just want to make sure of what you're 10 saying based on this inflation question and the using a 11 future test year. In your experience, even when a 12 utility is applying for rates with a future test year, 13 those numbers can be adjusted based on historical data 14 that may support an adder or some known and measurable 15 change that happens between filing and hearing time 16 that may support an adder or a subtracter -- or a 17 deduction. Am I understanding this correctly of how a 18 future test year works? 19 A. You look at budgets. And actually, budgets 20 should be based on past costs. You have variances. 21 And you look what the variances are, and you project 22 forward. But just to include an inflation factor just 23 to increase the rate because you think it's going to 24 happen, that's like expected inflation going out 2018. 25 The Company filed this case in 2017, a year and a half.
Page 795 1 normalization. Trend the revenues based on weather to 2 track the revenues. 20 years normalization. Use that 3 to track. Similar to that, use past costs to look at 4 future costs. Trend it out. 5 Q. Okay. So in this case -- 6 A. Or have specific information that says these 7 costs will increase in 2018. 8 Q. And Mr. Mugrace, certainly if we looked at the 9 expenses of where they've been the past couple years, 10 that would have, in your opinion, been a more 11 appropriate determination of what the 2018 test year 12 cost should have been? 13 A. It should better reflect the determinations of 14 costs. 15 Q. And those documents should be in the work 16 papers and statements of the past O&M -- 17 A. Well, I got three years worth. 18 Q. Yeah. Certainly. Since the last rate case? 19 A. 2017. But 2016, 2017, 2018 are projected. So 20 the actual cost is only one year. 21 MR. SANDERSON: Okay. Mr. Mugrace, no 22 further questions. Thank you. 23 THE COURT: Okay. Coffman's gone. Major 24 Unsicker. 25 MAJOR UNSICKER: No questions, sir.	Page 797 1 Inflation may change in 18 months. 2 MS. JEFFCOAT-SACCO: That's all I have. 3 Thanks. 4 THE COURT: Okay. Thank you, Mr. Mugrace. 5 It's 12:20. We'll break for lunch, we'll come back at 6 1:00. 7 (A break was taken at 12:19 p.m.) 8 THE COURT: We're ready to call back to 9 order. Okay. We've got two of the three Commissioners 10 in the room. It's past 1:00. I think we'll go back on 11 the record. There she is. 12 We'll go back on the record. And I believe Mr. 13 Armstrong has another witness to call. 14 MR. ARMSTRONG: Yes. We call Victor 15 Schock. 16 THE COURT: Victor, would you spell your 17 last name for the record, please? 18 THE WITNESS: S-c-h-o-c-k. 19 THE COURT: And raise your right hand. 20 21 VICTOR SCHOCK, 22 duly sworn, was examined and testifies as follows: 23 24 THE WITNESS: I do. 25 THE COURT: Thank you. Mr. Armstrong.

Page 798 1 2 DIRECT EXAMINATION 3 BY MR. ARMSTRONG: 4 Q. Mr. Schock, where are you employed? 5 A. I'm employed by the Public Service Commission. 6 Q. In what capacity? 7 A. As a public utility analyst. 8 Q. And what do you do in that position? 9 A. I analyze rate cases, advance determination of 10 prudence, damage prevention enforcement cases. All 11 manner of public utility cases. 12 Q. And how long have you worked at the Public 13 Service Commission? 14 A. About four years now. 15 Q. And you filed pre-filed testimony in this case, 16 correct? 17 A. I did. 18 Q. And any other qualifications are set out in 19 there, correct? 20 A. They are. 21 Q. You are the same Victor Schock who submitted 22 testimony marked as Exhibit PSC-27 in this case? 23 A. Yes, I am. 24 Q. And you've also reviewed the testimony of Sara 25 Cardwell marked as Exhibit PSC-26?	Page 800 1 after raising the check charge on the electric side 2 that it's had any measurable impact. 3 Cost of gas adjustment. The current limit is 4 ten cents. If the cost of gas is changing by more than 5 ten cents, they need to make a filing. Their request 6 is up that to 25 cents. Their argument for that is 7 that it would reduce administrative burden and cost 8 less. I would argue that they still have to do the 9 analysis every month to determine if it meets that 10 amount. So it's just a question of whether or not they 11 need to do the filing. And I think we should strive 12 for more accuracy rather than less accuracy in rate 13 making. 14 And additionally, we've seen by letting these 15 things go longer than one or two months or whatever the 16 appropriate time period is at the ten-cent change, it 17 could cause true-up balances that would be a problem 18 when finally getting to the point where the cost of gas 19 changed enough to justify a filing. So for those 20 reasons, I am recommending we leave it at ten cents. 21 Q. You've also been present during the hearing and 22 throughout the preparation of this case. Have you 23 evaluated the SSIP mechanism; is that correct? 24 A. Yes, I have. 25 Q. Do you as Staff have concerns about the SSIP
Page 799 1 A. Yes. 2 Q. And during this case, both you and Ms. Cardwell 3 at that time were members of Advocacy Staff, correct? 4 A. Correct. 5 Q. Do you adopt her testimony as well as yours? 6 If I asked you those same questions today, you'd 7 provide the same answers? 8 A. Yes. 9 Q. Have you reviewed MDU's pre-filed testimony and 10 listened to all the testimony in this hearing? 11 A. Yes, I have. 12 Q. Can you please summarize what you are 13 recommending the Commission to do in this case as it 14 relates to your pre-filed testimony? 15 A. Sure. It's pretty limited. My testimony 16 didn't cover a great deal, but I think a couple points 17 are important. First of all, the return check charge I 18 believe should remain at 15 rather than raising to \$40. 19 I think bank fees and other late fees assessed by the 20 Company are enough of an incentive for a customer to 21 write a bad check and we don't need to add an 22 additional penal amount to those customers. 23 Additionally, the Company has testified there's no 24 research supporting the additional charge, and they 25 haven't done any, really, study to look at before or	Page 801 1 mechanism MDU is proposing? 2 A. Yes, I do. 3 Q. Can you please explain those? 4 A. Sure. So the SSIP as a mechanism of recovery 5 is particularly troubling. It shifts the risk as we've 6 heard from other witnesses from the Company onto the 7 rate payer while giving the rate payer no additional 8 benefits. I think we heard from the Company that this 9 in itself wouldn't make the decision for them whether 10 or not they would make safety improvements or 11 investments in their system. Really all it would do is 12 provide an accelerated program for them to recoup their 13 costs. 14 I think we've seen it withdrawn in other 15 proceedings. In 2015 here, in their last gas case, it 16 was called, not quite the same, it was called rate 17 stabilization plan. That was withdrawn as part of a 18 settlement agreement. And I think other jurisdictions 19 it was opposed as well. 20 Generally speaking, it's poorly defined. 21 There's no limitation as to what type of facilities can 22 be covered -- or recovered, I should say, under this 23 plan. The -- part of what they're proposing in the 24 2019 projects are replacing pipe that is actually 25 hasn't even been studied to determine if they're a

Transcript of Proceedings Volume 3

6/1/2018

Page 45 (802 - 805)

Page 802 1 problem or not. 2 The -- kind of the buzz word I think they've 3 been using is aging infrastructure. It's a good buzz 4 word for utility companies to justify unnecessarily 5 accelerated depreciation. And really, all it 6 accomplishes is increasing rate base and therefore 7 their returns. 8 Q. Have -- 9 A. Go ahead. 10 Q. Well, have you had experience with, in your 11 position, with evaluating other riders and things in 12 other area? 13 A. Many riders, yes. 14 Q. Okay. And do you view this mechanism as 15 similar to a rider? 16 A. Very. 17 Q. Okay. And what are your concerns based on your 18 experience with other riders about implementing this 19 type of mechanism? 20 A. So the riders are administrative burden to 21 Staff and Commission as well in that we have a large 22 number of riders that are filed annually the way it is. 23 Generally, riders, even if they do have a filing fee, 24 it's minimal not allowing us to hire sufficient experts 25 to challenge what the Company is proposing. And even	Page 804 1 Q. Did that settlement and or the Commission's 2 order include any decisions based on employee housing? 3 A. There was no discussion of employee housing. 4 Q. Did you think that somehow Advocacy Staff 5 adopted the way the Company was treating employee 6 housing in the electric gas case? 7 A. No. 8 Q. I'm going to put in front of you what I've had 9 marked as PSC-47. First of all, Mr. Schock, what is 10 Exhibit PSC-47? 11 A. This is the Commission's Findings of Fact, 12 Conclusions of Law and Order from the last electric 13 case, PU-16-666. 14 Q. Okay. And does that order also attach the 15 settlement agreement? 16 A. Yes, it does. 17 MR. ARMSTRONG: I guess I would offer it 18 at this time. 19 THE COURT: Any objection, Mr. Sanderson? 20 MR. SANDERSON: I'm just going through it 21 just to make sure, Judge. I have no objection. 22 THE COURT: Ms. Jeffcoat-Sacco? 23 MS. JEFFCOAT-SACCO: We have no objection. 24 Thanks. 25 THE COURT: Okay. PSC-47 will be
Page 803 1 if we did, the time schedule wouldn't really match up 2 with what the Company is proposing here. I think we 3 were talking about a March to October time frame of 4 when they would file until they would expect recovery. 5 We would be lucky to get an expert on board and have an 6 initial testimony filing in that amount of time. So 7 for those reasons, I would have major concerns. 8 Q. Moving on. You've heard some testimony about 9 employee housing in this case from Mr. Jacobson and Mr. 10 Mugrace, correct? 11 A. Correct. 12 Q. And in Mr. Jacobson's testimony, I don't want 13 to -- I don't know if I'm saying it exactly right, but 14 as I understand it, he testified this was allowed in 15 the previous electric rate case? 16 A. I believe he said that, yes. 17 Q. Okay. Were you part of Advocacy Staff in the 18 previous electric rate case? 19 A. Yes, I was. 20 Q. And was the housing something that was disputed 21 by Advocacy Staff in that case? 22 A. Yes, it was. 23 Q. Did that case result in a settlement which was 24 adopted by this Commission? 25 A. Yes, it did.	Page 805 1 admitted. 2 BY MR. ARMSTRONG: 3 Q. Mr. Schock, I know Mr. Mugrace's testimony 4 talked about a previous settlement at times. Mr. 5 Jacobson talked about a previous settlement at times. 6 Are we here today asking the Commission to review these 7 things on their own merits as they relate to this rate 8 case? 9 A. Yes, we are. 10 Q. Okay. And by offering this Exhibit 47, we're 11 not asking the Commission to use that to make a 12 determination on anything else in this case; is that 13 correct? 14 A. That's correct. 15 Q. We just want to show that it doesn't talk about 16 housing? 17 A. Yes. 18 Q. Okay. And didn't that settlement indicate that 19 it does not establish any principle or precedent nor 20 adopt or recommend any specific type or amount of 21 expense or rate base for this or any future proceeding, 22 nor any principle or precedent regarding rate design 23 methodology? 24 A. Yes, it did say that. 25 Q. And it had other provisions along similar

Transcript of Proceedings Volume 3

6/1/2018

Page 46 (806 - 809)

Page 806 1 lines; is that fair? 2 A. That's fair. 3 Q. It says what it says, right? 4 A. Right. 5 MR. ARMSTRONG: Thank you. I tender Mr. 6 Schock for Cross-Examination. 7 THE COURT: Thank you. Mr. Sanderson. 8 MR. SANDERSON: Thank you, Judge. 9 10 CROSS-EXAMINATION 11 BY MR. SANDERSON: 12 Q. Good afternoon, Mr. Schock. Just with respect 13 to those housing units, as a result of the rate case in 14 Exhibit 47, those housing units were put into rate 15 base; is that correct? 16 A. I would assume the Company has done so, yes. 17 Q. Okay. 18 A. It didn't specifically say that they could not 19 be. 20 Q. Okay. And like all the other plant assets in 21 this case, they got moved into rate base. That was 22 your understanding? 23 A. Yes. 24 Q. 25 MR. SANDERSON: Okay. Mr. Schock, I have	Page 808 1 MS. JEFFCOAT-SACCO: Yeah. That wasn't 2 one that I was going to ask him about. 3 MR. SANDERSON: If I may? 4 THE COURT: You may. 5 MR. SANDERSON: We do have an exhibit on 6 the incentive bonus and commission incentive pay for 7 2014, 2015, 2016, 2017 that we've marked as MDU-19. 8 MS. JEFFCOAT-SACCO: Okay. But you do not 9 have the return check charge handy? 10 MR. SANDERSON: We are going to call Ms. 11 Bosch back to the stand to address that. I can tell 12 you we were not able to get the numbers put together 13 for an exhibit by -- since yesterday afternoon. 14 MS. JEFFCOAT-SACCO: Okay. Then I don't 15 have -- I don't think I have any questions for Victor, 16 but I may be asking him questions after he's had an 17 opportunity to hear this response. 18 THE COURT: That's okay. I mean, he can 19 be called back. 20 MS. JEFFCOAT-SACCO: Okay. Thank you. 21 THE COURT: Okay. Commissioners. 22 Commissioner Kroshus. 23 24 EXAMINATION 25 BY COMMISSIONER KROSHUS:
Page 807 1 no further questions. Thank you. 2 THE COURT: Ms. Jeffcoat-Sacco. 3 4 CROSS-EXAMINATION 5 BY MS. JEFFCOAT-SACCO: 6 Q. I was wondering -- it's more of a question for 7 MDU, but I would ask Victor about it if it existed. 8 The filings that they were going to make by this 9 afternoon, one was about the returned check, how many 10 returned checks and the volume of income or whatever 11 from that. And then I think the other one was about 12 the incentive pay, which I think we have three years 13 of, but I didn't know if we were going to go back to 14 2014. We have a zero in two years from the work papers 15 in this case. 16 So are you -- is either of those ready to be 17 submitted? 18 THE COURT: I think -- is that question 19 for Mr. Schock or Mr. Sanderson? 20 MS. JEFFCOAT-SACCO: Well, the question is 21 for MDU because I would ask Victor if he looked at this 22 filing about the returned checked charge. 23 THE COURT: Well, there was also a 24 discussion about having a ten-year leak history today 25 as well.	Page 809 1 Q. Good afternoon, Victor. 2 A. Good afternoon. 3 Q. I was anxious to see you on the stand because 4 it meant we were getting close. Plus you're really 5 good at what you do. 6 So the SSIP as being poorly defined, I believe. 7 A. Yes. 8 Q. And we've heard that from several other 9 witnesses and through the testimony as a part of the 10 testimony. Does it give you any cause to -- because 11 one of the things that came up was not knowing what 12 type of infrastructure is in place and really not 13 knowing until digging into it, so to speak, both 14 figuratively and in actual practice. Do you think 15 that's a reasonable argument that we just don't know? 16 A. I think it's a problem. I don't know that 17 that's a reasonable solution to solve the problem is I 18 don't know what's down there, we better dig it up and 19 replace it. 20 Q. Do you think that owning a facility over the 21 course of time you might get a pretty good handle on 22 what type of pipe is in the ground just through repairs 23 or additions, installing a new meter? 24 A. I would think you should, yes. 25 Q. So does that mean we don't really know in terms

Transcript of Proceedings Volume 3

6/1/2018

Page 47 (810 - 813)

Page 810 1 of ongoing repairs and maintenance and -- if it's 2 related to replacement whether or not the facility was 3 -- still had 30 years left or had 40 years left or had 4 50 years left of life in it? 5 A. I'm not -- I think I kind of missed where the 6 question was going. 7 Q. Well, it was cited that in 2017 there were 8 replacement projects that we didn't have an issue with 9 being included. Well, the thought that occurred to me 10 was if we're not sure about the 2018 projects -- and I 11 didn't think that much about it, I'll be honest, until 12 I think it was a comment made about Minot that was an 13 acquired system, it was purchased, it wasn't put in by 14 the Company. So I got to thinking after I heard that, 15 okay, so how do I know that what was done in 2017 16 wasn't replacing infrastructure that still had 50 years 17 left on it of life? 18 A. Right. It's an absolutely fair argument. I 19 guess I can't give you any certainty with that with my 20 own testimony. You know, we certainly do hire these 21 experts to review the investments. I don't think we 22 noted that we were concerned about prior year 23 investments. But I guess I don't really have much 24 further on that. 25 Q. So sampling a testing would be a reasonable	Page 812 1 they are not to say -- and that's why there's that 2 statement that Mitch read out a moment ago. It's not 3 to say that we agree with all these provisions, but 4 that we agree to the entire package. 5 Q. All right. And then I just want to add one 6 last thing. I guess closing out with the SSIP. System 7 safety is important, and I realize that. You have to 8 make ongoing expenditures to ensure that. So it just 9 got a little more interesting for me based on the last 10 couple of days. 11 A. Okay. 12 COMMISSIONER KROSHUS: No other questions. 13 THE COURT: Chairman Christmann. 14 15 EXAMINATION 16 BY CHAIRMAN CHRISTMANN: 17 Q. On that housing issue, was the point here that 18 the electric case settlement did not set a precedent 19 for future cases? Or do you quarrel with MDU's 20 assertion that that settlement allows the electric side 21 to recover the losses on that housing? 22 A. It would be the first, whereby the electric 23 settlement doesn't predicate what should be done in 24 every other case for every other portion or other 25 business that the Company's involved in.
Page 811 1 approach to get a handle on what's really out there? 2 A. I'm certain there's other methods as well, but 3 that certainly sounds like a much more reasonable 4 approach than to just replace the entire system. 5 Q. And then PSC counsel -- I don't want to cover 6 the same ground twice. But on the settlement related 7 to the housing -- or not related to the housing, but 8 the settlement on the case, that's different than 9 having a hearing where settlement is not present, 10 correct? 11 A. Correct. You know, in settlement, each side 12 probably gives a little bit more than they would 13 normally have during a full proceeding. You know, we 14 thought the settlement gave us the best outcome for 15 rate payers that we could expect versus a full hearing. 16 In this case, we weren't able to get to a settlement, 17 not for lack of trying. So we are proposing 18 eliminating that entire housing provision. 19 Q. Could that be the case with the bad check 20 charge that was accepted in the electric case but -- 21 A. Yes. 22 Q. And you're not in favor of for this case? Not 23 that you were in favor the last case? 24 A. Exactly. I think that's a fair way to 25 characterize most of the things that we settle on is	Page 813 1 Q. But no quarrel with the electric settlement 2 allowing for that recovery? 3 A. No. Correct. 4 Q. So yesterday, I guess I had never thought of 5 this much, I was kind of surprised that an NSF check on 6 one bill in a home that has both electric and gas would 7 sustain an NSF charge from the Company from both sides. 8 So if the Commission were to agree that the gas company 9 could, as MDU requests, recover the losses from the 10 housing from the gas company, do you think that would 11 allow them to double recover it? 12 A. No. 13 Q. And recover it once in the gas company and 14 again in the electric company? 15 A. I will say if you're going to apply something, 16 they have done that portion of it correctly whereby 17 they're assigning a percentage of the total to the 18 electric, a percentage of the total to gas. So the 19 800,000 that they're requesting in this case -- 20 somewhere I have -- where is that exhibit? 21 MR. ARMSTRONG: It would be PSC-46. I 22 don't know if it was left up there or not. You're 23 talking about the data request? 24 THE WITNESS: Yeah, where we talked about 25 the housing. I think the total loss on the housing was

Transcript of Proceedings Volume 3
6/1/2018

Page 48 (814 - 817)

Page 814	Page 816
1 closer to \$3 million. I was going to say, so of the 3 2 million, they're asking for North Dakota gas customers 3 to pay 785,000 of that. 4 BY CHAIRMAN CHRISTMANN: 5 Q. Okay. That also explains, I did notice over 6 lunch that my numbers didn't come out on Mr. Mugrace's. 7 Okay. That's covered. 8 Then I asked, I guess, the wrong witness of MDU 9 previously some questions about the TCGA. 10 A. Umm-hmm. 11 Q. And I don't know if they're going to bring 12 anyone else up to answer those. But can you answer 13 some questions? I don't know that you can testify 14 about it, you but can you answer some questions 15 regarding that issue and overall -- 16 A. I certainly hope so. 17 Q. Okay. The original MDU request last year of 18 \$5.9 million for additional revenue, would it be fair 19 to characterize it as for operations, taxes at the 20 pre-TCGA rates, and then what they would consider a 21 more proper return on their investments? 22 A. Yes. 23 Q. Okay. And then the taxes were lowered by the 24 TCGA by a net total of \$2.3 million. And I think we're 25 all in agreement on that that's the correct amount,	1 him whether that is over the current interim rates or 2 over the current rates as of before they filed the rate 3 case, and he said that was over the pre -- the 2017 4 rates. 5 A. Correct. And that is accurate. 6 Q. And so if -- and I know he's revised that some 7 now to reflect the other witnesses' probably elevated 8 ROE. But just using this as the standard, if the 9 Commission decided to go with exactly what was called 10 for on May 3rd by Staff, the 867,000 additional 11 revenue? 12 A. Yep. 13 Q. It would net for MDU almost \$3.2 million of 14 additional revenue because it would be the 867 plus the 15 2.3 that was in the old rates but that they no longer 16 have to submit? 17 A. Relative to 2017, yes. 18 Q. Okay. And if the Commission decided exactly 19 what MDU is asking for at this point, the \$3.6 million 20 increase, that is over the 2017 rates so it is -- the 21 net effect to the Company is back to their original 22 \$5.9 million request? 23 A. Correct. 24 CHAIRMAN CHRISTMANN: Thank you. I don't 25 have any other questions.
Page 815	Page 817
1 correct? 2 A. I think, yes, roughly that the Tax Cuts Jobs 3 Act reduced the revenue requirement by that amount, 4 yes. 5 Q. Okay. And so since MDU no longer has that \$2.3 6 million of tax liability, if we returned to their 7 original 2017 rates with no increase at all here -- Mr. 8 Sanderson is cringing -- it would equal a \$2.3 million 9 additional revenue for operations and a more proper 10 return on their investments, correct? 11 A. Yes. Okay. So your -- I followed your 12 question when you asked the MDU witness, and I'm not 13 sure that I follow it the same way at this moment. 14 Q. I'll ask again. 15 A. Okay. 16 Q. If we just went back to the 2017 rates? 17 A. Yes. 18 Q. That would allow MDU \$2.3 million of additional 19 revenue for operations or return on investment because 20 they don't have to send that to D.C. anymore? 21 A. Yes, that is absolutely correct. 22 Q. And so when -- when I asked Mr. Mugrace -- and 23 I'll just quote the sentence from his testimony again, 24 he says, I've calculated a revised revenue requirement 25 of \$867,496 or .774 percent over current rates, I asked	1 THE COURT: Commissioner Fedorchak. 2 CHAIRMAN CHRISTMANN: Oh, Your Honor, 3 there was one other. 4 THE COURT: Go ahead. 5 CHAIRMAN CHRISTMANN: I almost forgot. 6 Probably the most important one. 7 BY CHAIRMAN CHRISTMANN: 8 Q. But the fact is whatever that -- is it the fact 9 that whatever that amount ends up being that is decided 10 here will be based on the record of what is needed to 11 properly run this company and the -- whatever that 12 amount is, is going to reflect the fact that the 13 consumers have had that tax reduction really returned 14 to them in the net effect? 15 A. Yes. 16 Q. The increase will be that much less than 17 whatever else it would have been? 18 A. Correct. 19 Q. I wanted to make sure that's clear. Thank you. 20 THE COURT: Okay. Now Commissioner 21 Fedorchak. 22 COMMISSIONER FEDORCHAK: You sure, Randy? 23 CHAIRMAN CHRISTMANN: I'm done. 24 25 EXAMINATION

Transcript of Proceedings Volume 3

6/1/2018

Page 49 (818 - 821)

Page 818 1 BY COMMISSIONER FEDORCHAK: 2 Q. So I'm sure you know what's next. 3 A. I don't. 4 Q. Now you have to explain that. 5 A. Explain that? What's that? 6 Q. Why the -- how the Company is -- has a net -- 7 whatever the amount was you came up with, what was it? 8 2 point what increase over their -- 9 CHAIRMAN CHRISTMANN: 2.3. 10 BY 11 BY COMMISSIONER FEDORCHAK: 12 Q. \$2.3 million increase, how they're collecting 13 that today? 14 A. Quite simply, the rates that they're collecting 15 today are based on the rates that were set at a time 16 when the tax rate for that company was 35 percent. 17 Since in 2018 that rate is only 21 percent, they are 18 collecting -- as part of their total revenue 19 requirement, the rates are designed to collect, they 20 are collecting that \$2.3 million that they don't have 21 to pay to the federal government for taxes. 22 Q. So but I thought we adjusted that in the 23 interim rates. So what they're collecting today is 24 what they have to pay for their -- to the federal 25 government?	Page 820 1 an example of, say, they're -- 2017 rate, don't do the 2 interim rates. 2017 rate was -- 3 A. Okay. So 2017 rate would, let's say, allow 4 them to collect \$1,000. And 35 -- 350, sorry, of that 5 \$1,000 would be to pay their taxes. 6 Q. Okay. 7 A. That's the 2017 rate. 2018 still has the 2017 8 rate in effect. And in addition to that, they are 9 collecting interim rates. So let's say the interim 10 rates give them another \$4. So they're collecting 11 \$1,004, as an example. I realize this isn't the math 12 for the Company necessarily. So they're collecting 13 \$1,004 in total in 2018 if nothing else happens from 14 today based on their 2017 rates being in effect and the 15 interim rates being in effect. Okay? 16 Now, in reality, 2018, the tax rate is only 21 17 percent. So rather than having to spend 350 of that 18 \$1,000 on taxes, they have to spend 210. 19 Q. Umm-hmm. 20 A. So they have the difference between those two, 21 which is, you know -- I'm an accountant not a 22 mathematician. Off the top of my head, what is it? 23 Q. 140? 24 A. There you go. 140 plus the \$4 extra. 25 Q. But we're making them give the 140 back. You
Page 819 1 A. It's the -- 2 Q. Because they still have an obligation, it's 3 just smaller. So what they're collecting now is not 4 compounded, it's what they have to pay. 5 A. Well, I would say what they're collecting now 6 is more than what they have to pay. 7 Q. Okay. How is that? That's what I don't 8 understand. 9 A. Because they're not getting interim rates. And 10 so the interim rate they're collecting I believe is 11 higher than what this Commission should grant them for 12 a total revenue increase. 13 Q. Okay. Fine. But the tax piece? 14 A. Well, it's all -- so I mean I think I 15 understand what you're trying to say. But it's all 16 part of that dollar amount. You know, so taxes is 17 one -- so -- 18 Q. But \$2.3 million windfall is a lot of money if 19 they're already collecting that somehow, and then we're 20 adding more on top of that with a rate increase. 21 A. Yes. 22 Q. What Randy's saying is that they had -- we need 23 an example. We -- a simple one. 24 A. Okay. 25 Q. Like round numbers, thousands, perhaps. Give	Page 821 1 set that aside? 2 A. We're tracking it separately, yes. The Company 3 is tracking it separately, yes. So, yes, at some -- 4 Q. Assume we don't -- I'm assuming in all of this 5 that that money is off the table. Is that the 6 difference here, that Randy isn't assuming that and I 7 am? 8 A. I think that may be the disconnect, that 9 he's -- right. 10 Q. He's allowing them to keep it? 11 A. I couldn't say if he's going to allow them to 12 keep it. I kind of doubt he would. 13 Q. In this example. 14 A. I think so, yes. 15 Q. All right. Then I understand it. 16 A. Okay. 17 Q. All right. Then moving over to the SSIP stuff. 18 A. Sure. 19 Q. How should the -- you seem to dismiss the 20 safety arguments? 21 A. I don't, actually. 22 Q. Okay. 23 A. The recovery mechanism is very different from 24 the creation of a safety improvement program. I'm 25 absolutely in favor of safety improvement, just not of

Transcript of Proceedings Volume 3

6/1/2018

Page 50 (822 - 825)

Page 822 1 the Company's accelerated recovery mechanism. 2 Q. Okay. So how should they approach in a more -- 3 set the recovery mechanism aside. 4 A. Okay. 5 Q. Those are getting mixed up a lot, and I think 6 that we have to be able to recognize that there's a 7 million different ways you can recover it. So that's 8 not the only thing at issue here. I think it's more 9 important that we figure out -- because I hear from 10 Staff some question about whether there's legitimate 11 costs even being proposed to be recovered. 12 A. Yes. 13 Q. Because you've dismissed the 2018, all those 14 have been recommended to be dismissed. 15 A. Correct. 16 Q. So that tells me that you don't believe that 17 there's a safety concern there. 18 A. I don't think the Company -- 19 Q. So that's what I need to really better 20 understand. 21 A. So I think what our witnesses have said more so 22 than me, necessarily, but the Company hasn't proven 23 that there's a safety concern with all of that 24 infrastructure they intend to replace in 2018, 25 particularly the -- there's a lot of discussion about	Page 824 1 of weigh in on this is -- this is a safety concern and 2 this isn't a safety concern and really kind of get into 3 Pat's job and other operators of the system who also 4 have said they don't -- you know, there's a lot of 5 unknowns in what's under the ground because that's how 6 it was -- it's just the reality of the state we're in 7 today. So what's our -- what are we going to -- what 8 should we expect from the Company so we can achieve 9 that proper balance? Oversight but yet letting them 10 use their expertise? 11 A. Letting them use their expertise, but what I 12 think the argument is, is they don't know what's down 13 there. There's other options, rather than replacing 14 it, to figure that out. Rather than replacing an 15 entire town, sampling the pipe that's being taken out 16 of service and no longer used, yeah, it tells you what 17 was in that town, but it doesn't necessarily tell you 18 what's in the next town. So maybe a different type of 19 a program that samples pipe rather than replaces all of 20 it to figure out -- so you have -- you won't know what 21 every piece of pipe in every town is. But you can have 22 a better idea of what is down there so you can make a 23 reasonable plan for replacement. 24 Q. Okay. 25 A. Yeah, we don't necessarily need to dictate
Page 823 1 this Aldyl A plastic pipe. There are publications out 2 there saying certain types of Aldyl A is prone to this 3 stress cracking. 4 Q. Yep. 5 A. The Company doesn't know what they have. They 6 know they have some Aldyl A, they don't know what 7 vintage or what resins are in there. So rather than 8 figure that out and then determine what to do, what 9 they're saying is how about we just replace it all, 10 make customers pay for that, and then we'll know what 11 was down there. 12 Q. So if the Aldyl A was the concern, then why 13 didn't Staff just focus on that, the \$800,000 for Aldyl 14 A, which was a small portion of the 2018 proposal? 15 A. It was a small portion. I think it was -- so 16 again, this wasn't my testimony, it was our witness 17 primarily, that it wasn't -- it wasn't well defined, 18 you know, what the safety concern was with those. And 19 it wasn't even defined what their plan was. At the 20 outset of the case, all they really said was we want a 21 recovery mechanism for a plan that did not exist at the 22 time. So since then, they have a plan. 23 Q. Okay. Well, it's -- then one more thing on 24 this. Where do you think the balance is in the 25 responsibility for the Commission to dictate and kind	Page 825 1 their -- what's safe and what's not safe, but I don't 2 think they have enough evidence to show that this is 3 not safe. 4 COMMISSIONER FEDORCHAK: Okay. All right. 5 Thanks, Victor. 6 THE COURT: Okay. Mr. Armstrong, your 7 chance to confuse this old judge more. 8 MR. ARMSTRONG: I will do my best to not 9 do that, but I found that the more lawyers talk the 10 more confusing sometimes things get. 11 REDIRECT EXAMINATION 12 BY MR. ARMSTRONG: 13 Q. I do want to talk to you first about the 2.2 to 14 \$2.3 million decrease in the requested rate as a result 15 of the TCJA. 16 A. Yep. 17 Q. So when the Company first filed the case for 18 the 2018 test year, the filing was based on a 35 19 percent tax rate, correct? 20 A. Correct. 21 Q. And that 2.2 to 2.3 reduction from the 22 requested increase was a result of the TCJA, correct? 23 A. Correct. 24 Q. And that was an update to the test year based 25

Transcript of Proceedings Volume 3

6/1/2018

Page 51 (826 - 829)

Page 826 1 on the taxes that the Company would have to pay in the 2 test year? 3 A. Correct. 4 Q. Under the lesser rate? 5 A. Yes. 6 Q. And depending on how you want to look at that 7 number, it could apply different ways. But the number 8 is in 2018 projected, the Company will pay 2.2 to 2.3 9 less taxes? Income taxes? 10 A. Well, I think it was more than just the tax -- 11 the amount of taxes paid itself. There was also the 12 ARAM type of excess deferred stuff, but yes. 13 Q. Right. And there were some other offshoots 14 that are discussed? 15 A. Yep. Total revenue requirement, I agree, is 16 less because of the Tax Cuts and Jobs Act by that 17 amount. 18 Q. That's what that amount refers to is the 19 estimated income tax payment in 2018? 20 A. Yes. 21 Q. Okay. The only other issue I want to ask you 22 about is little bit on this housing. You've got PSC-46 23 in front of you? 24 A. Yep. 25 Q. Those houses listed on there, when were they	Page 828 1 towns, Cleveland, Barlow and Cleveland. You were aware 2 of that? 3 A. Yes. 4 Q. Okay. You also heard the testimony that in 5 order to get a statistically -- and of those towns, 6 Cleveland was an unknown type of pipe, Barlow -- I 7 can't remember if Barlow was about 1980, and the other 8 town I just don't have in front of me. But they 9 proposed to attempt to identify three different 10 vintages there; you're aware of that? 11 A. Yes. 12 Q. And would you agree that would be appropriate? 13 A. To identify them? 14 Q. Yeah, to test them and identify what's on the 15 system. 16 A. I guess I couldn't speak to what's the 17 appropriate testing program. 18 Q. Okay. Well, you heard Mr. Darras say that in 19 order to get a statistically valid example, for example 20 in those community, they need to do 35 different tests? 21 A. I heard him say that, yes. 22 Q. Okay. Do you agree with that? 23 A. I don't have enough knowledge to dispute that. 24 But I -- it sounded to me at the time he was testifying 25 that this larger 35 percent sample may be in order to
Page 827 1 purchased? 2 A. They were purchased as early as 2010. The vast 3 majority were purchased in 2012, and a few in 2013. 4 Q. Okay. After those houses were purchased, were 5 they added to MDU Gas's rate base? 6 A. I don't believe they were. When in fact they 7 were actually here twice for rate cases prior to this 8 one when these weren't -- I think we had a rate case in 9 2013 and in 2015, and I do not recall employee housing 10 being requested to be put into rate base in those 11 proceedings. 12 MR. ARMSTRONG: Thank you. That's all the 13 questions I have. 14 THE COURT: Mr. Sanderson. 15 MR. SANDERSON: Thank you. 16 17 RE CROSS-EXAMINATION 18 BY MR. SANDERSON: 19 Q. Mr. Schock, so as I understand your testimony 20 with respect to the SSIP, Advocacy Staff is in favor of 21 testing to be conducted by the Company for safety? 22 A. Well, a testing program, yes. 23 Q. A testing program. One of the things you're 24 aware of, Mr. Schock, is the testing program that 25 they're proposing in 2018 is for three very small	Page 829 1 get a perfect picture of what that entire town's system 2 looked like, which is probably correct. 3 Q. Okay. And I don't remember which community it 4 is, but there's only -- did you hear the testimony, I 5 believe it was that there's only roughly ten residences 6 in that town. So they were targeting very small 7 communities for this test program. 8 A. Okay. 9 Q. Okay. So is it the Staff's position that when 10 the Company has to go into this very small area and dig 11 up the infrastructure to do 35 tests, that they 12 shouldn't just replace the small area while they're 13 there on pipe they know that is 50 plus years old? Is 14 that -- would that be reasonable and prudent? 15 A. I don't think I heard that all of the pipe was 16 50 plus years ago. 1980 wasn't 50 years ago. That's 17 when I was born, and I'm not 50. So what I'm saying is 18 if it's that small of a system, doing 35 samples seems 19 excessive. But what I'm also saying is I don't know 20 what the appropriate testing program is. But that, to 21 me, sounds excessive. 22 Q. Okay. And to be fair, Mr. Schock, if you have 23 concerns about the appropriate testing method, wouldn't 24 it be appropriate for the Company, Advocacy Staff, 25 Interveners and the Commission to work together to

Page 830	Page 832
1 formulate a plan so the Company's not wasting money, 2 the tax payers don't have to pay for programs that are 3 imprudent and let's all get together and formulate a 4 program and work together on this? 5 A. Sounds great. 6 Q. Such as an SSIP program? 7 A. I wouldn't call it that great. 8 Q. Taking away the recovery side. Taking away the 9 recovery side. You're aware working together, putting 10 in a mechanism to work with the Commission? 11 A. Well, I don't think that's how the SSIP, not 12 the recovery side, was developed. It wasn't the 13 Company working with the Staff and the Commission. It 14 was the Company developed this plan and now is saying 15 you need to adopt this because this is what we say is 16 safety. 17 Q. Well, you certainly understood, Mr. Schock, 18 that the Company is not -- wants to file their plan 19 with this Commission every year on what they intend to 20 do. That's your understanding? 21 A. That's what they stated, yes. 22 Q. Okay. Staff, they said they're not opposed to 23 paying a filing fee similar to what's done in riders to 24 give the Staff the resources to challenge this? 25 A. They said that, but the filing fee in other	1 Q. So we have a filing, a hearing where we can all 2 work together, Intervenor can come in, nothing is 3 recovered before approval by the Commission, and then 4 the Company's also proposing a true up after that to 5 make sure the cost matched, that would also need to be 6 approved by the Commission? 7 A. Yeah, they proposed that. 8 Q. Okay. And you believe that system would not be 9 as good as the current system we have where in 2017 10 nobody came to talk about Richardton, the Company did 11 system replacement costs, Advocacy Staff hasn't raised 12 a concern with it, nobody approved it before, rate 13 payers are going to pay for it in this case, and you 14 think that's a better system than the proposed SSIP? 15 A. Yes. 16 Q. Okay. 17 A. And honestly it makes me concerned about 18 Richardton now, because we talked about Richardton a 19 lot. 20 Q. We can go back. You know the Company's 21 continuously made improvements for decades, correct? 22 A. I hope they have, yes. 23 Q. And your counsel represented in this case, 24 Staff has never challenged any one of these, correct? 25 A. Not to my knowledge.
Page 831	Page 833
1 rider cases is not enough to give me the resources I 2 need to properly evaluate this. 3 Q. Is one of the filings in the North Dakota Gas 4 rider -- or Electric rider, one of them \$100,000? 5 A. I'm not sure which one off the top of my head. 6 Probably. 7 Q. Okay. How much money do you need to fund this? 8 A. I don't know. I've never hired an expert 9 specifically to challenge the safety program of a 10 utility. 11 Q. And Mr. Schock, in a rider proceeding, 12 Intervenor such as AARP and the Air Force and anybody 13 else that has concerns, can intervene in those cases? 14 A. They can. 15 Q. Okay. 16 A. They seldom -- I don't think I've ever seen an 17 intervenor in a rider case since I've been here. 18 Q. Okay. And Mr. Schock, you heard that there 19 would be no recovery unless the program is approved by 20 the Commission? 21 A. Right. 22 Q. And isn't that -- wouldn't you agree that would 23 be appropriate? 24 A. It sounds -- yes. The Commission should 25 approve recovery of any program.	1 Q. And the Company doesn't come forward and seek 2 approval from the Commission on these projects at all 3 prior to coming in for a rate case, correct? 4 A. Correct. Until this plan. 5 Q. Yeah, until this plan. So wouldn't a system 6 where the Company comes in and presents these and works 7 with the Commission and works with Staff to make sure 8 we're doing things right be a better system for the 9 safety in North Dakota? 10 A. I don't feel like it would. 11 Q. Okay. That's fine. No further questions, 12 thank you, Mr. Schock. 13 THE COURT: Okay. Major? 14 MAJOR UNSICKER: No, sir. 15 THE COURT: Ms. Jeffcoat-Sacco? 16 RE CROSS-EXAMINATION 17 BY MS. JEFFCOAT-SACCO: 18 Q. Okay. Victor, would one of the reasons why it 19 may not be a better system with a better plan, better 20 method is that it shifts the risk from the Company -- 21 under this current system the Company is under the risk 22 to make a really good decision about Richardton knowing 23 they may not get recovery at rate case time -- as 24 opposed to shifting that risk to rate payers with this 25

Transcript of Proceedings Volume 3

6/1/2018

Page 53 (834 - 837)

Page 834	Page 836
1 upfront plan? 2 A. Right. That is one of the main reasons. 3 MS. JEFFCOAT-SACCO: That's all I have. 4 Thanks. 5 THE COURT: Okay. Mr. Schock, I think you 6 can step down. 7 Mr. Armstrong? 8 MR. ARMSTRONG: Advocacy Staff rests. 9 THE COURT: Okay. Major, you're done with 10 your case? 11 MAJOR UNSICKER: Yes, sir. 12 THE COURT: Okay. So you want to -- 13 you're going to rest? 14 MAJOR UNSICKER: I rest. Yes, sir. 15 THE COURT: Okay. And Ms. Jeffcoat-Sacco, 16 do you have a witness to call? 17 MS. JEFFCOAT-SACCO: Commissioner 18 Fedorchak has requested one, yes. Patrick. 19 THE COURT: Okay. He's occupying the AARP 20 seat at the moment. Yesterday you morphed into Jerry 21 Lee and then back. 22 Mr. Fahn, welcome. 23 THE WITNESS: Surprise. 24 THE COURT: Raise your right hand. 25	1 the stand today. Good thing you wore a suit. 2 A. Yes. 3 Q. I wanted to ask you to provide some testimony 4 today because of your role as the director of the 5 Commissions Pipeline Safety Oversight Program. So the 6 Commission -- why don't you just first explain what the 7 Commission has jurisdiction for on behalf of PHMSA in 8 terms of pipeline safety? 9 A. Sure, our Commission has oversight over 10 Intrastate Natural Gas, transmission and distribution 11 systems. 12 Q. Okay. 13 A. Pipeline safety. 14 Q. And how many inspectors do we have? 15 A. We have one and a half inspectors, and one and 16 a half program manager. 17 Q. Okay. And what do those inspectors do? What 18 are their main -- what is their main job? 19 A. Well, they are -- you know, they're -- the goal 20 is to ensure pipeline safety, you know, in the state of 21 North Dakota. And they do that by auditing the 22 Company's records, sometimes doing field inspections to 23 make sure that the Company is complying with part 192 24 of the Code of Federal Regulations. 25 Q. And what does that code spell out? What is
Page 835	Page 837
1 PATRICK FAHN, 2 duly sworn, was examined and testifies as follows: 3 4 THE WITNESS: I do. 5 THE COURT: Thanks. Ms. Jeffcoat-Sacco. 6 MS. JEFFCOAT-SACCO: I think I'll defer to 7 the Commission, specifically Commissioner Fedorchak who 8 requested the witness. 9 THE COURT: Okay. 10 MS. JEFFCOAT-SACCO: After he gives his 11 name and address. 12 THE COURT: Go ahead. 13 THE WITNESS: My name is Patrick Fahn. My 14 address is -- my home address? 1409 Ridgeview Lane. 15 THE COURT: I think your office address 16 would be adequate. 17 THE WITNESS: 600 East Boulevard, 18 Bismarck, North Dakota. 19 THE COURT: Just down the hall. 20 Okay. Commissioner Fedorchak, we'll start with 21 you. 22 23 EXAMINATION 24 BY COMMISSIONER FEDORCHAK: 25 Q. Thank you. Patrick, thanks for coming up to	1 that code responsible for guiding? 2 A. Provides minimum standards for pipelines, for 3 pipeline safety for gas distribution systems and gas 4 transmission systems. 5 Q. Okay. So do our inspectors mostly work -- 6 where do they spend a bulk of their time, transmission 7 or distribution systems oversight? 8 A. I would -- I believe it's on the gas 9 distribution systems they spend most of their time. 10 Q. So are they overseeing MDU's system? 11 A. Yes, they are. 12 Q. Are there other inspectors outside of our Staff 13 that do that? Does PHMSA have other experts that come 14 in and help our Staff oversee? 15 A. Well, we are their agent for the Intrastate 16 Natural Gas systems. 17 Q. Okay. So for all the distribution systems in 18 North Dakota, our pipeline safety inspectors are the 19 people that make sure that the companies are following 20 the law, the regulations? 21 A. Right. 22 Q. Okay. So are you -- can you describe so we all 23 kind of understand from a -- not the Company, not the 24 Advocacy Staff, the third party inspectors, what has -- 25 has PHMSA changed some of their approach to the

Transcript of Proceedings Volume 3

6/1/2018

Page 54 (838 - 841)

Page 838 oversight of the pipeline safety integrity systems in recent years? A. Well, I thought when I was asked to come up that you would have me maybe talk about the distribution integrity management that PHMSA -- Q. That's relatively new? A. It's relatively new. It was required by -- required that operators comply with this no later than August 2nd of 2011 for gas distribution systems. Q. Okay. And what does require involved? What do they have to do to be in compliance with that DIMP? A. Sure. And I have the -- I have part 192 of the Code of Federal Regulations here. And the -- they are to develop a written integrity management plan, and it has to contain procedures for developing and implementing several things. And I'll give you the general, like, table of contents here. But first of all, they're supposed to develop a demonstration and understanding of the distribution -- of their distribution systems. And they're supposed to develop that from reasonably available information. Q. Okay. A. Second, they're supposed to identify threats to the system. And then there's a list of things that they're supposed to consider at a minimum. And if	Page 840 pipeline. These measures must include an effective leak management program unless all leaks are repaired when found. And then they are supposed to measure the performance and monitor the results and evaluate the effectiveness of their program. Q. Okay. A. And finally -- well, not quite finally, they're supposed to do a periodic evaluation and improvement of the plan and reevaluate the threats and risks on the system. And the last part is reporting the results of the whole program and plan. Q. And are -- do our inspectors review these DIMP -- is that what they're mostly reviewing when they're out there inspecting? A. It is. This is one of the things that they review. Q. Okay. Have -- do you -- are you aware of our inspectors finding any problems with MDU's approach to this? A. I am not aware of any problems at this point. Q. Okay. What's the overall philosophy on this going from -- is this different -- how do they use the approach things? Like the DIMP compares to -- how did they do it without the DIMP? A. How do the Staff audit the Company?
Page 839 you'd like me to read those off, I will. It's not too long of a list. Q. Sure. A. Corrosion, natural forces, excavation damage, other outside force damage, material or wells, equipment failure, incorrect operations, and other concerns that could threaten the integrity of the system. Q. Okay. So understand it, identify the threats. What else? A. And then they go on to say that an operator must -- sources of data may include but are not limited to incident and leak history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, and excavation damage experience. Q. Okay. A. So then the next piece of this is that they are to evaluate and rank risk, determine the relative importance of each threat and estimate and rank the risks posed to the pipeline. Q. Okay. A. Then identify and implement measures to address risks. And those measures are to be designed to reduce the risks from failure of its gas distribution	Page 841 Q. Yeah, what did they focus on, or how -- what did PHMSA require of the companies prior to this DIMP approach? A. Well, certainly the companies were required to cathodically protect their systems, so our audit would include a review of the records, cathodic protection records. They were supposed to do leak surveys, so our Staff would audit the record of the leak surveys that had been done. And they would review the leaks on the system, make sure that there was a record of the leak being repaired or being repaired very soon. Pressure protection, an overpressure regulation and overpressure protection is another thing they would audit. They're also looking for damage prevention records and a damage prevention plan. Q. So now it's mostly -- now it seems like it's much more targeted to identifying risk, weighing the risk and mitigating the risks? A. Yes. There is an extra element here for -- to determining the integrity of your system. Q. Does PHMSA do anything prescriptive on replacements? Like, how does replacement fit in that? A. They do not. They do not say that replacement is a requirement. Q. Okay. Very good. All right. I just wanted to

Page 842 1 get in the record some of that specific information on 2 the PHMSA's approach to this pipeline integrity. 3 A. I guess I would just add one thing to that. It 4 doesn't mean that replacement isn't something that 5 would need to be done. It all depends on the risks and 6 the priority of the risks evaluated by the Company's 7 records and a determination I think by the Company how 8 they will minimize the risk. 9 COMMISSIONER FEDORCHAK: Okay. That's all 10 I have for you, Pat. Thank you. 11 THE COURT: Okay. I'm going to -- Mr. 12 Armstrong, since it's more in the nature of direct, do 13 you have any questions? 14 MR. ARMSTRONG: No questions. 15 THE COURT: Okay. Mr. Sanderson. 16 MR. SANDERSON: No questions. 17 THE COURT: Okay. Major. 18 MAJOR UNSICKER: No questions, sir. 19 MS. JEFFCOAT-SACCO: I have one. 20 THE COURT: Commissioner Kroshus. 21 MR. ARMSTRONG: Judge. 22 MS. JEFFCOAT-SACCO: I just have one. 23 THE COURT: You do. Okay. 24 25 REDIRECT EXAMINATION	Page 844 1 happen. 2 Q. Right. Okay. 3 COMMISSIONER KROSHUS: Nothing else from 4 me. 5 THE COURT: Chairman Christmann. 6 7 EXAMINATION 8 BY CHAIRMAN CHRISTMANN: 9 Q. A previous witness talked about leak surveys 10 that the -- that gas distribution companies do. Were 11 you in here? Did you hear that discussion? I believe 12 you said it was annually. 13 A. Yes. Well, it's annually not to exceed 15 14 months. 15 Q. Okay. And did I understand correctly that the 16 leaks that are detected fall into three categories, 17 either that they need to be repaired immediately or 18 that they need to be repaired but not necessarily 19 immediately, or that they do not need to be repaired? 20 A. Each -- if I remember correctly, each company 21 develops their own repair plan. And so they prioritize 22 their repairs and the length of time that they -- in 23 which they would make a repair of a leak. 24 Q. Does it -- I was surprised, but does it seem 25 correct to you that they do these surveys and find
Page 843 1 BY MS. JEFFCOAT-SACCO: 2 Q. On the last little conversation. The DIMP 3 review is in addition to all the other things, not 4 instead of, correct? 5 A. Correct. 6 MS. JEFFCOAT-SACCO: That's all. 7 THE COURT: Okay. Commissioner Kroshus, 8 do you have any? 9 10 EXAMINATION 11 BY COMMISSIONER KROSHUS: 12 Q. I could ask 20 questions, but rather than 13 turning this into a work session, because, Pat, 14 fortunately for you there will at least be several. 15 Just, we've talked a lot about system safety. 16 And this is repetitive, but would you say that MDU 17 runs -- that their system is safe? Does a good job 18 maintaining system safety? Has there been any reason 19 to not find that to be the case in their inspections? 20 A. Our audits have -- you know, they have 21 performed well in our audits, but there's always -- 22 there's the -- when I was doing railroad crossing 23 safety there was one saying that we always had, and 24 that saying was, there's no such thing as a safe 25 railroad crossing because, you know, something can	Page 845 1 leaks that do not need to be repaired? 2 A. That would -- I don't think that would be very 3 happy with that. I think when they find a leak, they 4 need to figure out what's going on. 5 Q. So maybe I misunderstood that. But whichever 6 way that is, wouldn't the leak survey be -- when you 7 compile the information from the leak surveys and all 8 the areas that are served, wouldn't that serve as a 9 very good safety testing program that you would see 10 that there are X number of leaks per mile in this 11 community and X number of leaks in this community and 12 you would see the outliers where there seem to be more 13 problems and that that would be the more vulnerable 14 places, rather than going up and digging up a whole 15 system? 16 A. It is one of the things that PHMSA requires 17 them to look at. 18 Q. Okay. 19 A. Or strongly suggests that they look at that. 20 CHAIRMAN CHRISTMANN: Okay. Thank you. 21 No other questions. 22 THE COURT: All right. Anything else for 23 Mr. Fahn? Seeing none, you can step down, Mr. Fahn. 24 Okay. Now, Ms. Jeffcoat-Sacco? 25 MS. JEFFCOAT-SACCO: I have nothing

Page 846 1 further. 2 THE COURT: Okay. All right. 3 So back to you, Mr. Sanderson. Any rebuttal 4 case? 5 MR. SANDERSON: Yes, Your Honor. First, I 6 would start with recalling Nicole Kivitso. 7 THE COURT: Okay. Ms. Kivitso, I'll just 8 remind you, you're under oath. And you can sit down. 9 Go ahead, Mr. Sanderson. 10 MR. SANDERSON: Thank you, Your Honor. 11 12 DIRECT EXAMINATION 13 BY MR. SANDERSON: 14 Q. Ms. Kivitso, I'll just get directly to the 15 point. With respect to the issue of inflation, you 16 heard the testimony of Mr. Mugrace who said the Company 17 had not provided any testimony or evidence regarding 18 inflation. Do you recall those -- that testimony? 19 A. I do. 20 Q. In your direct testimony on page 12, did you -- 21 did you address the operation and maintenance expense 22 increases since the last rate case? 23 A. Yes, I did. 24 Q. And what, in your testimony, did you indicate 25 the increase was?	Page 848 1 MR. SANDERSON: At this time we'd offer 2 MDU-19. 3 THE COURT: Any objection, Mr. Armstrong? 4 MR. ARMSTRONG: No. 5 THE COURT: Okay. Major? 6 MAJOR UNSICKER: No, sir. 7 THE COURT: Ms. Jeffcoat-Sacco? 8 MS. JEFFCOAT-SACCO: No. 9 THE COURT: MDU-19 is received. 10 BY MR. SANDERSON: 11 Q. With respect to incentive compensation, Ms. 12 Kivitso, you heard the testimony of Mr. Mugrace that 13 the 50 percent O&M goal for 99 percent of the Company's 14 employees serves no customer benefit. Do you agree 15 with that? 16 A. I would disagree with that. 17 Q. And can you explain why the O&M target benefits 18 North Dakota rate payers? 19 A. Because I believe operating an efficient system 20 does have benefits to our customers. As we talked 21 about the O&M, when we look at the average, since our 22 last rate case, that's averaged three percent annually. 23 I believe setting a target for our employees to make 24 sure they are using our dollars wisely and our 25 customers' dollars wisely does benefit our customers in
Page 847 1 A. I indicated that it averaged about three 2 percent since our last rate case, annually. 3 Q. And it had averaged three percent, but the 4 Company used for inflation of O&M -- certain, very 5 limited O&M expenses of a figure of 2.2 percent 6 pursuant to six published data sources? 7 A. That is correct. 8 Q. Okay. 9 MR. SANDERSON: May I approach the 10 witness, Your Honor? 11 THE COURT: You may. Is this something 12 that's already marked, Paul? 13 MR. SANDERSON: This is now marked as 14 Exhibit MDU-19. This was a request from Commission for 15 additional -- for additional incentive information. 16 BY MR. SANDERSON: 17 Q. Ms. Kivitso, I forget who specifically 18 requested the Company provide an additional year of 19 bonus -- or incentive compensation, but did you -- you 20 instruct someone from Montana-Dakota to do that on your 21 behalf? 22 A. Yes. 23 Q. And is this -- does MDU-19 reflect the data 24 that -- the additional data that was requested? 25 A. Yes, it does.	Page 849 1 the long run. So we -- for all employees, we set a 2 target for O&M that is in line with what we've 3 historically been able to achieve. And if they come in 4 under that, it certainly benefits our customers. 5 MR. SANDERSON: May I approach the 6 witness, Your Honor? 7 THE COURT: You may. 8 BY MR. SANDERSON: 9 Q. Ms. Kivitso, I've shown you what's been marked 10 as MDU Exhibit 17. Was this a document created within 11 the last 48 hours at your request? Or compiled at your 12 request? 13 A. It was compiled. It was not created in the 14 last 48 hours. 15 Q. Yes. Sorry. 16 A. Yes. 17 Q. And can you just briefly describe what the 18 document marked as Exhibit 17 is? 19 A. So this would be some samples of -- I think the 20 question was does the Company look at comparisons to 21 commercial flights before we use the corporate 22 aircraft. This is the form that we put together when 23 we are going to use the corporate aircraft. And you 24 can see here's some examples of where we do a 25 comparison. On the far right, you can see a box that

Transcript of Proceedings Volume 3

6/1/2018

Page 57 (850 - 853)

Page 850 1 says alternative transportation cost. 2 Q. And Ms. Kivitso, before -- 3 A. Oh, sorry. 4 Q. And are these -- all the sheets that compile 5 Exhibit MDU-17, are those from the year 2017? 6 A. 2017, yes. 7 Q. Okay. 8 MR. SANDERSON: At this time, Judge, we 9 would offer MDU-17. 10 THE COURT: Mr. Armstrong? 11 MR. ARMSTRONG: I'm just going to explain 12 to you, Judge, I haven't had a chance to look at this. 13 We've had this case going on for a long, long time. I 14 know it's been requested and brought up. I have no way 15 to stipulate to it, but I really have no way to even 16 formulate my objection to it. So I have to object to 17 it on basically every grounds because I have -- I mean, 18 I don't know what to tell you. I get where you're 19 coming from, I get where they're coming from. But I 20 can't stipulate to this exhibit. 21 THE COURT: Okay. 22 MR. ARMSTRONG: I object to it on late 23 disclosure, I object to it on foundation, I object to 24 it on not having the supporting documentation. I 25 haven't had enough chance to look at it to determine	Page 852 1 MR. SANDERSON: Okay. So I think with 2 respect to foundation, Judge, these are all documents 3 signed expressly by Ms. Kivitso. 4 THE COURT: Mr. Armstrong, I'll let you 5 voir dire the witness about it based on what you can do 6 with it in front of you now, if you want to kind of 7 develop, you know, what's gone into producing it or who 8 produced it. 9 MR. ARMSTRONG: I certainly don't doubt 10 that these are accurate foundation documents of the 11 ones that are provided. My concern is by doing it at 12 this late stage, we've allowed, I don't know, five or 13 six pages. I have no way to know if there's other 14 ones. You know, if these are selectively chosen to 15 show that these flights or something all turned out the 16 good way, but the ones that did not turn out the good 17 way aren't being provided. I have no way to know that, 18 now way to discover it, Your Honor. 19 I'll withdraw my objection to foundation, 20 because I think Ms. Kivitso is telling the truth, these 21 are documents that she signed and reviewed and 22 provided. But the remaining objections I leave. 23 THE COURT: Okay. I'm going to admit the 24 document and I'm -- you know, you can -- you'll have 25 time to, you know, deal with it in your brief, et
Page 851 1 even relevance, but I guess I've stated my objections. 2 THE COURT: Okay. On the basis of the 3 foundation objection, I'm going to ask you, Mr. 4 Sanderson, to see if you can provide more foundation so 5 that we know what it is. Now, what I'm saying is if 6 it's a -- I heard her say it's a representative example 7 based on some comparisons. But if you want to flush 8 that out so we can know, you know, what was done. 9 MR. SANDERSON: Certainly. I can lay some 10 more foundation to address that. 11 THE COURT: Okay. 12 BY MR. SANDERSON: 13 Q. Ms. Kivitso, on the bottom of every sheet 14 there's a signature, very nice signature. Whose is 15 that? 16 A. That would be mine. 17 Q. Okay. Did you personally sign each and every 18 one of these documents in 2017? 19 A. Each time our corporate plane is requested, I 20 have to sign off on the use of it, yes. 21 Q. Okay. And to be fair, Ms. Kivitso, you're not 22 representing that these are every single request for 23 corporate aircraft travel in 2017, but the ones that 24 your staff could find in the last 24 hours? 25 A. That is correct.	Page 853 1 cetera. And if you want to request additional 2 information as part of a late-filed exhibit, or 3 whatever you think you might need, I would permit that 4 as well. 5 But I'm going to admit the document. Any other 6 objections? Major? 7 MAJOR UNSICKER: No, sir. 8 THE COURT: Ms. Jeffcoat-Sacco? 9 MS. JEFFCOAT-SACCO: Well, I have an 10 objection about -- I recognize that you probably wanted 11 to have your witness substantiate, you know, the 12 foundation. But I just think it's appropriate that the 13 Staff witnesses left. They were -- one of them was 14 asking about this kind of supporting documentation on 15 one of the challenges, and this information was here 16 all day but was not shared before this so that there 17 could have been some review and perhaps even some 18 discussion between Staff and MDU. I think that's -- 19 I'm not objecting to the exhibit, because that's not an 20 objection. But I want the record to reflect that I 21 think it's inappropriate. 22 THE COURT: Okay. 23 MR. SANDERSON: And I'd certainly respond 24 to that. This is rebuttal, Judge. The criticism -- we 25 responded to every single data request that Advocacy

Page 854 1 Staff or any Intervenor provided to us. If they didn't 2 request it -- you know, we do what we can. But this is 3 rebuttal, this is how this operates. Advocacy Staff 4 certainly introduced rebuttal exhibits here today 5 without providing to them before us. So this is a 6 double-edged sword. 7 THE COURT: Well, as my recollection is 8 that the request for this started out as a request for 9 a late-filed exhibit. I think the Company did what it 10 could under the circumstances to provide the document 11 in time for today so that maybe we wouldn't need a 12 late-filed exhibit. 13 I'm going to admit this document. You can 14 attack the weight and credibility of the document any 15 way that you choose. And I know it's a short amount of 16 notice. But you can also, and we will leave open at 17 the end the possibility of requesting an additional 18 late-filed exhibit with regard to underlying data or 19 other data with respect to other flights and that we 20 can put a time line on that as part of when we close 21 the case. 22 So this exhibit is admitted. 23 BY MR. SANDERSON: 24 Q. Ms. Kivitso, you, in your testimony, your 25 direct testimony, had explained that you go through and	Page 856 1 that related to North Dakota Gas. 2 Q. And the question will likely be asked or may be 3 asked, these all show instances where the cost of using 4 the Company plane was less than the alternative 5 transportation cost, time cost, lodging and meals. Why 6 typically would you not have available to you ones 7 where the alternate -- alternative would exceed the -- 8 the alternate transportation costs would exceed the 9 cost of the plane? 10 A. Because generally we aren't going to allow the 11 corporate plane to be used unless it is cheaper than 12 commercial. There will be some exceptions in the 13 instance of time savings, efficiency of folks. But on 14 a general basis, we do not allow the corporate plane 15 unless it's cheaper. 16 Q. Do you get a significant number of requests 17 when the alternative -- alternate travel costs are less 18 than what it would cost to use the jet? 19 A. I think generally folks within the utility know 20 that if it's not going to be cheaper and there's not 21 some other interest in play, they're not even going to 22 request it, they would just go commercial. 23 MR. SANDERSON: Thank you, Ms. Kivitso. I 24 have no further questions. Thank you. 25 THE COURT: Okay. Mr. Armstrong.
Page 855 1 fill out -- or every request comes to you personally. 2 Do you recall your testimony? 3 A. Yes. 4 Q. You said you sign off on every single request? 5 A. That is where utility personnel are using the 6 plane, is that correct. 7 Q. Okay. And these would be at least documents 8 you could find from 2017 showing when the -- the plane 9 was requested. And what is all contained in the 10 information provided to you with these requests? 11 A. Yeah, so as previously was mentioned, we have 12 this form, we fill this out. And there are 13 circumstances, and I think it was brought up in 14 testimony previously where there is a discussion that's 15 had. And I am still signing off on the form, but it is 16 not filled out in this level of detail. But when we 17 fill it in out in this level of detail, you can see on 18 the right-hand side of the page, we are forming an 19 alternative comparison to what commercial aircraft 20 would cost us to prove that it is the right decision to 21 take the corporate aircraft. 22 So these flights are just representative 23 samples of what we do. And then in the case of North 24 Dakota Gas, they would only be allocated the 25 appropriate cost for their share of any particular trip	Page 857 1 MR. ARMSTRONG: Thank you. 2 3 CROSS-EXAMINATION 4 BY MR. ARMSTRONG: 5 Q. Ms. Kivitso, I'm going to come back to MDU-17. 6 A. Sure. Yep. 7 Q. Starting off, Mr. Sanderson asked you about 8 your direct testimony and the operations and 9 maintenance expenses and the increase three percent per 10 year. 11 A. Yes. 12 Q. Now, included in that are various different 13 things such as medical insurance and dental insurance; 14 is that correct? 15 A. It would be all of our O&M on the aggregate is 16 going up on an average of three percent. 17 Q. So it's not just the stuff we've objected to, 18 the 2.2 percent, correct? 19 A. It's in total. 20 Q. And some of the big expenses that went up in 21 cost were medical and dental, correct? 22 A. It would include ups and downs in various 23 categories, it's in the aggregate. 24 Q. But as far as prices that went up from '17 to 25 '18, and Staff has accepted the increases in medical

Transcript of Proceedings Volume 3

6/1/2018

Page 59 (858 - 861)

Page 858 1 and dental insurances; you're aware of that, correct? 2 A. Yes. 3 Q. And that was one of the larger expenses? 4 A. I don't know for sure as a proportion of the 5 total. If that's what you're asking me, I can't answer 6 that for sure. 7 Q. That's fine. We've got the documents, 8 everybody can go and review them, which were the big 9 ones, which weren't. 10 Going to MDU-19. 11 A. Okay. 12 Q. There's two accounts listed there, one is 5130, 13 and one is 5131. And I'm going to tell you how I'm 14 reading this sheet, and I understand you had it 15 prepared for you. But is 5130, is that the executive 16 incentive compensation? 17 A. 5130 consists of MDU Resources, our share of 18 the MDU Resources plan, the Bakken incentives that were 19 paid that have now been phased out, as well as some 20 long-term awards. So that is not just executives, no. 21 Q. Does it include the executives? Now we've got 22 additional accounting here. Which one -- 23 A. Both columns include executives -- or both 24 rows, excuse me. Both rows include executives. 25 Q. I see. One of -- I'm sorry, I just got this,	Page 860 1 A. I understand, yep. 2 Q. And ask you at least somewhat intelligent 3 questions. 4 A. Okay. 5 Q. So what is 5131? 6 A. 5131 would be utility only incentives. 7 Q. And are those for 2017, are those the actual 8 incentives? 9 A. That is what was actually paid out, which is 10 above what we have in this case. 11 Q. Okay. So -- 12 A. So we exceeded our targets in 2017. 13 Q. Okay. So 5131 shows the actual incentives paid 14 for '14, '15, '16 and '17? 15 A. That is correct. 16 Q. Okay. 17 A. For utility personnel. 18 Q. Now, MDU-17, if I'm counting correctly, five 19 pages. Do you -- I personally -- I need some more time 20 to review this to know anything about it. Do you know 21 if this includes pilot costs? 22 A. So the way the corporate plane works is we are 23 charged an hourly rate to use the corporate plane. And 24 that would include the cost of the pilots. 25 Q. What the hourly rate?
Page 859 1 so I'm just kind of looking at it. 2 A. No, that's fine. 3 Q. I was trying to listen to your other testimony 4 as well. 5 One of them is bonuses and commissions, and one 6 of them is incentive comp accrual, I would assume, or 7 something like that? 8 A. Correct. 9 Q. But 5130 deals with MDU Resources? 10 A. It has some MDU Resources, yep. So it's our 11 share allocated to North Dakota for MDU Resources, all 12 employees, okay, not just executives. And that line 13 item also includes the Bakken incentives that the 14 utility was paying in the height of the boom. Those 15 have been phased out. 16 Q. And those I think the work papers said were 17 phased out in -- 18 A. I believe the last of it was paid in 2016, but 19 it was phased out over that year, so it wouldn't be 20 representative in '16. We wouldn't have been paying a 21 full year, I believe. 22 Q. And that's what Mr. Kaiser and were discussing, 23 correct? Well, you might not remember. It doesn't 24 matter. I'm trying to go through all of this 25 information. This is new information.	Page 861 1 A. I believe it's \$1,200. 2 Q. I assume you've flown commercial out of -- 3 forget it. 4 Here's my question for you. Both 17 and 19 5 relate to issues that Mr. Mugrace testified about, 6 revenue requirement issues. Okay. And Mr. Mugrace's 7 direct testimony was filed in December of 2017. I'll 8 just represent to you that that's the case. Okay? 9 A. Okay. 10 Q. And he challenged both of these areas. You're 11 aware he challenged the aircraft costs and you're aware 12 he challenged the incentive compensation, correct? 13 A. Yes. 14 Q. It sounds to me, and correct me if I'm wrong, 15 but it sounds to me the position that's being taken is 16 Staff never requested this so we didn't provide it; is 17 that fair characterization? 18 A. My understanding is we responded to all data 19 requests we received. 20 Q. Okay. That doesn't mean that's the only 21 information you could provide us, correct? 22 A. I suppose that would be correct. 23 Q. Neither of these or examples of these were 24 attached to anyone's rebuttal testimony? 25 A. That is correct.

Page 862 1 Q. Okay. So it's not like they couldn't have been 2 provided until the hearing today? 3 A. These were -- would have been available prior 4 to this hearing, yes. 5 Q. And this might be a legal question. If you 6 don't know the answer, you don't know. You would agree 7 with me that it's MDU's burden to show that its costs 8 are reasonable and prudent, correct? 9 A. We have the burden of proof in a rate case, 10 yes. 11 Q. And when that -- when those costs are 12 challenged, wouldn't trying to combat that be to 13 provide the documentation that would show that -- 14 A. My understanding is we did try to do that by 15 responding to the data requests, so . . . 16 Q. So your testimony is you just limited any 17 response to a data request? 18 A. We tried to provide what was needed in response 19 to the questions we got. 20 Q. But not in response to the points made in 21 testimony? I mean, you would -- I don't know if -- 22 have you read Mr. Mudge's testimony? 23 A. Sections of it. 24 Q. Okay. And you heard him testify and he said, I 25 didn't get this documentation. And you also heard him	Page 864 1 2016 and 2017. And they -- what I wrote down was that 2 they were both kind of 700,000 something. Okay. So 3 one of them actually matches up under 2016, that's 4 741,346 matches up to the exhibit. What I wrote down, 5 which could have been wrong, 794,431, could have been 6 wrong, I don't -- I don't know. Okay. Okay. Yes. 7 For 2017. I'm trying to see how that fits into this 8 chart? 9 A. I believe the difference is what we're 10 reflecting on this page here, MDU-19, is actual 11 incentives. At the time that schedule was put 12 together, we maybe did not know what we actually paid. 13 Q. All right. As I see now, Mitch is showing me 14 it's projected. 15 A. Correct. 16 Q. Okay. So you actually paid, like, twice -- 17 like substantially more, not twice as much maybe? 18 A. We exceeded our targets in 2017, and we would 19 be -- we would have paid more than we have built into 20 this case. And therefore, getting back to the 21 shareholder would be paying for those. 22 Q. Okay. And the bonuses and commission line, 23 that's all paid by shareholders then? Or not? 24 A. Essentially, what we have -- 25 Q. Or is that in the rate case, too, the --
Page 863 1 say sometimes I -- 2 A. And that is why we -- 3 Q. -- neglected to ask for it, right? But the 4 information to respond to it does exist somewhere in 5 MDU apparently? 6 A. And that is why we are providing it right now 7 today. 8 MR. ARMSTRONG: That's all the questions I 9 have, Judge. 10 THE COURT: Major? 11 MAJOR UNSICKER: No questions, sir. 12 THE COURT: Ms. Jeffcoat-Sacco? 13 14 CROSS-EXAMINATION 15 BY MS. JEFFCOAT-SACCO: 16 Q. You do recognize that MDU has the burden of 17 proof in a rate case? 18 A. Yes. 19 Q. I'm trying to sort out on this incentive comp 20 Exhibit 19. 21 A. Okay. Yep. 22 Q. I went back to my notes because I think I was 23 asking the question originally, and I think -- and I 24 was referred to work papers, and I'm not sure that I 25 can find them at the moment, for the information on	Page 865 1 A. Well, what we have built into the rate case 2 would be both of these lines at a target level. So 3 when you look at what we have built in the rate case, 4 both of those lines would have been built in at a 5 target payout. And in 2017, what MDU-19 shows is that 6 we had exceeded that target level and paid more than 7 that. So the shareholder, what I'm just saying as an 8 analogy, is the shareholder would have been paying for 9 anything above that target amount that was built in the 10 case. 11 MS. JEFFCOAT-SACCO: Okay. That's all I 12 have. Thanks. 13 THE COURT: Okay. Commissioners. 14 Commissioner Kroshus. 15 16 EXAMINATION 17 BY COMMISSIONER KROSHUS: 18 Q. Just a couple quick questions. Even if it's 19 anecdotal, how many times do you use the plane? These 20 cases were for 2017, correct? 21 A. And again, to be clear, these are just some 22 representative samples. 23 Q. Right. 24 A. In all cases, sometimes we do this verbally. I 25 just want to make sure we're clear on that.

Transcript of Proceedings Volume 3

6/1/2018

Page 61 (866 - 869)

Page 866 1 Q. Okay. 2 A. And how many times a year do I use the 3 corporate plane or the Company in total? 4 Q. Just for gas operations. Is it once a week? 5 Is it every other week? 6 A. Well, I think some of the gas operations, I 7 just want to be upfront here and clear, that they are 8 going to get an allocated share of any time we take the 9 plane to go to our customer call center as an example, 10 because as you may know, that call center serves all 11 eight states, all jurisdictions. Same thing, I think 12 we have an example in here of our accounting group 13 getting some training. Our accounting group serves all 14 eight states, all -- so they would get a share. North 15 Dakota would get a share of that. 16 To just focus on North Dakota Gas only, it is 17 very rare that we would use the plane within just the 18 state of North Dakota. So I don't know if that helps 19 you or not. But we don't -- generally we're not going 20 to be traveling in the state with our corporate plane. 21 It's going to be to get to our call center, to get to a 22 training somewhere out of state or something like that. 23 Q. So these represent allocations were involved on 24 these trips? 25 A. Yeah, these would not be 100 percent to North	Page 868 1 So I'm skipping to the third one just because 2 in the brief time it seems simpler. 3 A. Okay. 4 Q. Five people to Boise, and five people back home 5 two days later. So when you do the comparison, you've 6 got lodging, meals, and the comparison of the corporate 7 plane to the commercial. Do you have -- and lodging I 8 presume is whatever the rates are. 9 A. Right. 10 Q. Because they would vary by town. But do you 11 have a corporate policy on meal reimbursements, how 12 much they are? Or is it whatever they turned out to 13 be? 14 A. Yeah, we do not have a per diem. 15 Q. That's what I was -- yeah. 16 A. What we do is the employee would turn in any 17 expenses on meals to their supervisor, and to the 18 extent the supervisor feels that there is something 19 that is, you know, outside of the norm or if the 20 employee is spending more than they should, which is I 21 think what you're trying to ask, that would be taken 22 care of through the supervisor and that employee. But 23 we don't have a set amount. 24 Q. That wasn't what I was trying to ask. 25 A. Oh, I'm sorry.
Page 867 1 Dakota Gas. 2 Q. I'm just trying to get a handle on is this 5 of 3 24 because it's every other week? Is it, you know, 5 4 of 52 because, you know, you use the plane every week, 5 and as a result of using the plane some of it goes to 6 the gas side of the operation? I'm just trying to 7 get -- 8 A. The utility probably is not using the plane 9 every week. But I would be speculating to guess how 10 often we use that. 11 Q. Okay. And then -- no, actually I think you 12 answered my question. You were under accrued in 2017 13 and the shortfall was paid by shareholders, correct? 14 A. Correct. 15 COMMISSIONER KROSHUS: Okay. Thank you. 16 THE COURT: Chairman. 17 18 EXAMINATION 19 BY CHAIRMAN CHRISTMANN: 20 Q. I don't have much for questions. This is not 21 much time to evaluate this. But the first couple are 22 particularly hard, because it looks like it's kind of 23 some almost taxiing around, taking one person to one 24 place, go over to another place nearby, pick someone up 25 and bring them back to Bismarck.	Page 869 1 Q. Because that would be after the fact. But for 2 doing this comparison, you're comparing the additional 3 cost of meals. So what -- you must have kind of a -- 4 A. Yeah, we're using an average here. Yep. 5 Q. Okay. And then when you're comparing the 6 transportation cost to the commercial, is that a coach 7 ticket or -- 8 A. Correct. 9 Q. -- first class? 10 A. Yeah, we've got a travel individual that works 11 for the Company, and basically we would -- my assistant 12 calls and gets a quote from him in terms of what it 13 would cost for a ticket around the same time to Boise. 14 CHAIRMAN CHRISTMANN: Thank you. 15 THE COURT: Okay. Commissioner Fedorchak. 16 COMMISSIONER FEDORCHAK: Just two. One 17 question, one point. 18 19 EXAMINATION 20 BY COMMISSIONER FEDORCHAK: 21 Q. On the MDU-19 that -- I read that to be the 22 Company's evidence that in fact on the incentive 23 compensation, you are asking for from rate payers the 24 portion that you believe is benefitting rate payers, 25 and the portion you feel is not is being covered by the

Page 870 1 shareholders. So we've been -- there's been a lot of 2 talk about we should -- the rate payers shouldn't have 3 to pay for all it, the shareholders should pay for the 4 part that reflects the performance that they benefit 5 from. And this is your evidence saying, yeah, that's 6 how it is. 7 A. I -- right. I mean, what we've got built into 8 the case is at target. And so what we're saying is if 9 we exceed target because we were able to do better in 10 earnings, as an example, that's been thrown out, then 11 really anything paid over the target is shareholder 12 dollars, is shareholder money. 13 Q. But the target isn't their entire incentive. 14 Their incentive is more than the target. They get more 15 than just their, like -- 16 A. Depends on what -- if the goals were met or 17 not. So if goals are met precisely at the level they 18 were set, they would get their target. If we exceed 19 those goals, they would get more than target. 20 Q. And do they know what -- like, is there a 21 percentage more of target, or do employees know what 22 the -- 23 A. Yes, it varies by employee. 24 Q. All right. Then on this flight document here, 25 now I know that you're not overseeing every data	Page 872 1 these same documents for MDU Resources' use of the 2 corporate airplane. So I don't know what questions 3 were specifically asked. What I can tell you is I sign 4 off on the utility use of the corporate plane. 5 And when we responded originally in those data 6 requests, I'm not sure how the questions were 7 answered -- or asked. But I know the response was more 8 of MDU Resources' use of that plane. And we have a 9 document kind of like this, but I'm not signing off on 10 those. So that could be the distinguishment. 11 COMMISSIONER FEDORCHAK: That's all from 12 me. Thank you. 13 MR. SANDERSON: Nothing further. 14 THE COURT: Okay. Mr. Armstrong, 15 anything? 16 MR. ARMSTRONG: I think we've covered it 17 throughout the hearing, Judge. I'll save it for 18 argument. 19 THE COURT: Major. 20 MAJOR UNSICKER: No, sir. 21 THE COURT: Illona? 22 MS. JEFFCOAT-SACCO: I have one more now. 23 24 RE-CROSS-EXAMINATION 25 BY MS. JEFFCOAT-SACCO:
Page 871 1 request and all the information exchanged that's going 2 on. I mean, you have a lot going on, and you've got 3 staff to take care of that. But if I was in your shoes 4 and this document existed and it wasn't given to them, 5 I would be furious. This has been talked about for 6 several days just here. I can't even imagine how many 7 times the Staff has been circulating around just 8 wanting to know this information. And I just have to 9 say that transparency builds trust. This is an easy 10 transparent document to show, like, this is the 11 analysis we make, this is why we think these costs are 12 justified. 13 So it's hard for me to understand why your 14 staff wouldn't have provided this, even if it wasn't 15 requested. So I know that's not you. It's just a 16 point that it -- it's not helpful to fear that we're 17 just not asking the right questions in the right exact 18 way to get the information that we need to determine 19 what's just and reasonable. 20 A. I guess the only thing I would respond there -- 21 I appreciate the feedback and the comment. You know, 22 in the testimony provided by our individuals, we talked 23 a little bit about the plane use for Resources. So 24 board of directors I think was discussed, analyst 25 meetings were discussed. I do not -- we do not have	Page 873 1 Q. In just responding to Commissioner Fedorchak 2 about the incentive pay that would benefit rate payers 3 versus the incentive pay that would benefit 4 stockholders, you had answered yes to her question, and 5 her question was about this Exhibit 19. And to me, 19 6 is showing what is built into rates or you're asking to 7 be built into rates versus -- because that's your 8 target -- versus the additional that you may have paid 9 out because all these targets were met, higher or 10 exceeded, that was paid by shareholders. 11 So if you take one goal, or one -- you know, 12 one category, I don't care if you want to pick 13 earnings, fine. The Company is saying earnings up to X 14 point goal is benefitting rate payers and earnings 15 better than that benefit shareholders, that's what I'm 16 hearing you saying in response to her question. 17 Customer service up to this targeted goal benefits rate 18 payers, past that where shareholders pay for it, it's 19 benefitting only shareholders. That seems impossible 20 to me. But that's what I heard you say when you said 21 yes to Commissioner Fedorchak. 22 A. Okay. Let me clarify then. I apologize. What 23 I was trying to say is the shareholder is paying, not 24 the benefit. In my opinion, we set our base pay, our 25 benefits, and our incentive, back to Jim Kaiser's

Transcript of Proceedings Volume 3

6/1/2018

Page 63 (874 - 877)

Page 874 1 testimony, our total rewards package, so that we can 2 attract and retain the best available employees in the 3 market. We do that by comparing to industry averages. 4 We have set that exactly comparable to the market so 5 that we can get the right people in the right jobs. I 6 believe that the right people in the right jobs 7 benefits both our customers and our shareholders. 8 What I was trying to say is that anything we 9 pay over what was built into the case is borne by the 10 shareholder. So I apologize if that didn't come across 11 right. 12 MS. JEFFCOAT-SACCO: Thank you. 13 THE COURT: And just so I'm clear, I think 14 what you -- what I understood you to say about 2017 was 15 that the bottom line number was higher than the target 16 for 2017. 17 THE WITNESS: Yes, it's higher than what 18 we have built into the case. 19 THE COURT: So that's not the amount that 20 was in the case, but that's the amount that was 21 actually paid, some of that borne by shareholders and 22 some of it by rate payers. 23 THE WITNESS: Right. Anything we would 24 have paid above what's in base rates the shareholder 25 would have paid is what I was trying to say, yes.	Page 876 1 Q. Right. And if you look at 2015, you paid a lot 2 less? 3 A. Yep, that's fair. 4 Q. So -- well -- 5 MR. ARMSTRONG: No more. 6 THE COURT: Okay. All right. You can 7 step down. Thanks, Ms. Kivitso. 8 THE WITNESS: Thank you. 9 THE COURT: Mr. Sanderson. 10 MR. SANDERSON: Briefly, Your Honor, we'd 11 call Stephanie Bosch back to the stand. 12 THE COURT: Okay. Ms. Bosch, I'll remind 13 you also that you're still under oath. 14 THE WITNESS: Yes. 15 THE COURT: Mr. Sanderson. 16 17 DIRECT EXAMINATION 18 BY MR. SANDERSON: 19 Q. Ms. Bosch, you recall being questioned about 20 the nonsufficient check fund check charge for dual 21 customers of both gas and electric? 22 A. Yes. 23 Q. Do you recall that testimony? 24 A. I do. 25 Q. Would you like to change the testimony you gave
Page 875 1 THE COURT: And what about the previous 2 three years? 3 THE WITNESS: The previous three years, 4 '16 I believe is probably a little bit higher than what 5 we have built into the case. '15 in total would be a 6 little bit less. But again, if you take the four years 7 on average, you're about, you know, where we're at. 8 THE COURT: All right. Any other 9 questions for Ms. Kivitso? 10 11 RECCROSS-EXAMINATION 12 BY MR. ARMSTRONG: 13 Q. I need clarification on the last one. If you 14 take the four years on average we're about where we're 15 at. Is that the number you're requesting in this rate 16 case? 17 A. If you look at the average of the four years, 18 basically it would be about what we have in the rate 19 case, correct. 20 Q. Okay. So really in the rate case, you're 21 trying to recover it all based on the average from the 22 last four years? 23 A. But I'm saying -- what I was trying to say in 24 '17 -- what I have built into my rates today, if you 25 look at 2017, we paid more than that.	Page 877 1 on the stand? 2 A. Yes, I would. 3 Q. Okay. 4 A. I clarified what we do in that instance where 5 there is a combination customer and there is NSF. We 6 charge the greater of the two. So in the example that 7 was provided, it would be the \$40. 8 Q. Okay. And Ms. Bosch, there was also a 9 request -- and again, I forget who made it -- but with 10 respect to do we have numbers on the low-income 11 customer accounts that are receiving the financial 12 benefits or incentive program. Have you -- were you 13 able to try to determine that number? 14 A. Yes. It's approximately three percent of 15 residential customers receive assistance. 16 Q. On the North Dakota Natural Gas customers? 17 A. Correct. 18 MR. SANDERSON: With that, Judge, I have 19 no further questions. Thank you. 20 THE COURT: Mr. Armstrong. 21 MR. ARMSTRONG: No questions. 22 THE COURT: Major. 23 MAJOR UNSICKER: No questions. 24 THE COURT: Ms. Jeffcoat-Sacco. 25 MS. JEFFCOAT-SACCO: Weren't we going to

Transcript of Proceedings Volume 3

6/1/2018

Page 64 (878 - 881)

Page 878 1 get some information about how much has been collected? 2 THE WITNESS: Yes, I am working on that. 3 MS. JEFFCOAT-SACCO: Oh, that's not 4 available? All right. 5 THE WITNESS: Yes. 6 MR. SANDERSON: Yes, I apologize. 7 THE COURT: Okay. Commissioners. 8 Commissioner Kroshus. 9 COMMISSIONER KROSHUS: No questions. 10 THE COURT: Chairman. 11 CHAIRMAN CHRISTMANN: No, sir. 12 BY MR. SANDERSON: 13 Q. Just briefly. I forgot, Ms. Bosch, there was a 14 request for the total amount of the check charges that 15 were requested. Did you attempt to obtain that data 16 since yesterday? 17 A. Yes, I just don't have it available at this 18 time. 19 MR. SANDERSON: Okay. Would that be 20 something the Commission would like as a late-filed 21 exhibit? 22 THE COURT: I see heads nodding, yes. 23 MR. SANDERSON: Judge, what I would 24 propose then, our exhibit number that I have would be 25 MDU-51. And I would request that we be permitted to	Page 880 1 want some time for closings as well. So I think if we 2 get back here at five to three, we can keep this on 3 task and hopefully wrap it up by five. 4 (A break was taken at 2:44 p.m.) 5 THE COURT: Okay. Back on the record now 6 about 2:55. 7 Mr. Sanderson, another rebuttal witness? 8 MR. SANDERSON: Yes, Your Honor. At this 9 time we would recall Travis Jacobson. 10 THE COURT: Mr. Jacobson, I'll remind you 11 you're under oath. 12 13 DIRECT EXAMINATION 14 BY MR. SANDERSON: 15 Q. Mr. Jacobson, you've heard the testimony of 16 witness Mr. Mugrace and Mr. Schock regarding the 17 treatment of the Tax Cut Act of 2017 and its impact on 18 this rate case. Would you just briefly respond to -- 19 or how would the Company respond to those -- that 20 testimony? 21 A. Sure. It seems as though this Tax Cuts and 22 Jobs Act is kind of like the Brer Rabbit and the Tar 23 Baby, because the harder you try the worse you get 24 stuck. So thanks -- thanks for calling me back up. 25 I think maybe the easiest way that I guess I
Page 879 1 file the nonsufficient check charge amounts that were 2 requested as MDU-51 as a late-filed exhibit. 3 THE COURT: Any objection? 4 MR. ARMSTRONG: Subject to reviewing the 5 document, no objection to that procedure, Judge. 6 MAJOR UNSICKER: No objection, sir. 7 THE COURT: Okay. Ms. Jeffcoat-Sacco? 8 MS. JEFFCOAT-SACCO: No, that's good. 9 Thanks. 10 THE COURT: Okay. And we'll discuss 11 late-filed exhibits when we talk about briefing and 12 stuff at the end. 13 Okay. Mr. Sanderson, anybody else? 14 MR. SANDERSON: At this time, 15 Montana-Dakota would call back up Travis Jacobson. 16 THE COURT: We're getting close to needing 17 a break. How long -- 18 MR. SANDERSON: I'll ask -- 19 THE COURT: Let's take a break. 20 MR. SANDERSON: Yeah, that's fine. 21 THE COURT: We'll come back at five to 22 three, because we still have this witness and another 23 one; is that right? 24 MR. SANDERSON: Yeah, one more witness. 25 THE COURT: And possibly the attorneys	Page 881 1 can think of it, so the rates today regardless of the 2 tax rate -- if you remember the last rates were 3 established two to three years ago -- there's been a 4 lot of things that have changed since then. Tax 5 happens to be one component of that entire rate that 6 we're charging. 7 So if I look at, in my rebuttal testimony, 8 Exhibits TRJ-5 and TRJ-6, what you'll see is we have -- 9 we're showing that we're going to collect \$106 million 10 from the customer using rates today in our projected 11 test period. And I think Mr. Mugrace also said the 12 same thing. So in our original case, we also said we 13 were going to collect \$106 million. You'll see that we 14 have a reduction in our tax expense. Victor also 15 talked about that there's the amortization of the 16 excess that also play into that. So there is a 17 reduction in the additional revenue that we need to 18 collect from customers. So the tax benefit in terms of 19 revenue that customers will pay has been reduced by 20 \$2.3 million. 21 If in fact, and I think this was mentioned 22 earlier -- if in fact we were earning our allowed rate 23 of return, we would have reduced our -- we could have 24 reduced our revenue by \$2.3 million. The customer 25 would have considered that a refund of that. However,

Page 882 1 in this particular case, even including the effects of 2 the Tax Cuts and Jobs Act, we still need a revenue 3 increase. Mr. Mugrace also did an analysis prior to 4 the tax change, and I believe his revenue requirement 5 was \$2.2 million, I believe, for -- as an increase to 6 customers, 2 to \$3 million, and then he reduced it to a 7 million three. 8 When -- Mr. Christmann, when you had quoted 9 that earlier, you were kind of comparing our \$5 million 10 to his \$1.3 million. Well, those were -- one was pre 11 Tax Cuts and Jobs Act, the other was post Tax Cuts and 12 Jobs Act. 13 So at the end of the day, what we reflect in 14 our filing that we need to collect from the customers 15 is now just under \$110 million, whereas prior to, all 16 other assumptions being exactly the same, we would have 17 needed to collect 112.3 million. Again, the \$2.3 18 million decrease. 19 I hope that made perfect sense. 20 MR. SANDERSON: So good, Mr. Jacobson, I 21 have no further questions. 22 MR. ARMSTRONG: No questions. 23 THE COURT: Okay. Major. 24 MAJOR UNSICKER: No questions, sir. 25 THE COURT: Ms. Jeffcoat-Sacco.	Page 884 1 Q. Correct. You would not have additional 2 revenue, you'd have 2.3 million additional dollars to 3 work with for operating? 4 A. Sort of. So we would not earn our rate of 5 return, so our taxes would -- and that's where it's an 6 iterative calculation. So our revenue would stay the 7 same, our expense would go down somewhat. But we still 8 wouldn't earn our rate of return. What I show in my 9 Exhibit TRJ-5 is, all things being equal, in our -- in 10 our requested rates, we would earn 5.567 percent, even 11 after all of the tax cuts. 12 Q. What did you say the numbers were that -- you 13 said you were collecting about \$106 million and that 14 now you need just under 110 million? 15 A. Correct. 16 Q. Do you have the -- is it, like, 109.9 or -- 17 A. 109,986,334. 18 Q. Okay. I'm going to call that 110. 19 And if not for the -- 20 THE COURT: Well, if you tack on your late 21 payment charge. 22 BY CHAIRMAN CHRISTMANN: 23 Q. If not for the Tax Cut and Job Act you would 24 need 112 -- 25 A. Yeah, 112,274,143.
Page 883 1 MS. JEFFCOAT-SACCO: No questions. 2 THE COURT: Okay. Commissioners. 3 Commissioner Kroshus. 4 COMMISSIONER KROSHUS: No questions. 5 THE COURT: Mr. Christmann? 6 7 EXAMINATION 8 BY CHAIRMAN CHRISTMANN: 9 Q. So just to be clear, when you talk about your 10 revenues today, you're not talking about the interim 11 rates, you're talking about the 2017 rates? 12 A. The rates that were proved in the last case, 13 yes. 14 Q. Right. And so if we chose to just deny 15 everything and keep your rates exactly where they were, 16 you would have \$2.3 million additional revenue for your 17 operating that you didn't have before? You would be 18 that much closer to that additional revenue that you 19 were seeking? 20 A. We would not get any additional revenue. We 21 would have a reduced tax expense. So on -- we would 22 improve earnings to some extent because you have a 23 reduced tax expense. 24 Q. Okay. 25 A. On the same level of revenue.	Page 885 1 Q. Okay. So this lowers your need to accomplish 2 the same -- you still are trying to accomplish the same 3 amount of operating money and the same amount of return 4 to your investors as you were trying to accomplish ten 5 months ago, but now you need \$2.3 million less revenues 6 to accomplish that? 7 A. I agree with that statement. 8 THE COURT: Let's stop there. 9 Commissioner Fedorchak. 10 COMMISSIONER FEDORCHAK: I agree, let's 11 stop there. 12 THE COURT: Okay. I don't think anybody's 13 got anymore. 14 MR. SANDERSON: No. 15 THE COURT: Okay. Thanks, Mr. Jacobson. 16 MR. SANDERSON: And finally, Judge, we 17 would call Pat Darras back to the stand. 18 THE COURT: Mr. Darras, I'll remind you 19 also that you're still under oath. 20 21 DIRECT EXAMINATION 22 BY MR. SANDERSON: 23 Q. May I approach -- well, first, good afternoon, 24 Mr. Darras. During your -- during your testimony a 25 request was made to you to produce some leak data of

Page 886 1 leaks in the system. Do you recall that? 2 A. Yes. 3 Q. And in the last 48 hours, did you request your 4 team to put together that information? 5 A. Yes, I did. 6 MR. SANDERSON: Okay. May I approach, 7 Judge? 8 THE COURT: You may. 9 BY MR. SANDERSON: 10 Q. Mr. Darras, could you -- does MDU Exhibit 18 11 reflect the material your team was able to put 12 together? 13 A. Yes, it does. 14 Q. And does that -- is that the leaks -- reported 15 leaks in the last three years? 16 A. It is the reported leaks, but if you notice in 17 parenthesis it does not include its total leaks 18 repaired by material type, but it excludes leaks caused 19 by excavation and above-ground leaks. 20 Q. Okay. 21 A. So basically what's that's saying is these are 22 underground leaks on steel or plastic. 23 MR. SANDERSON: Okay. At this time we'd 24 offer MDU Exhibit 18. 25 THE COURT: Mr. Armstrong? And I'll let	Page 888 1 leaks survey that was talked about, they do fill out a 2 form, and that would track that size of pipe. 3 Q. And the voir dire is really for foundation and 4 I kind of strayed away from it a little bit. But so it 5 would be your testimony that this is exactly a true and 6 correct summary of what it purports to be? 7 A. Yes. 8 MR. ARMSTRONG: Judge, this was a 9 requested exhibit. I'm not going to object to it at 10 this time. 11 THE COURT: Okay. Major. 12 MAJOR UNSICKER: No objection. 13 THE COURT: Ms. Jeffcoat-Sacco. 14 MS. JEFFCOAT-SACCO: No objection. 15 THE COURT: Okay. MDU-18 will be 16 received. 17 BY MR. SANDERSON: 18 Q. Mr. Darras, I now want to turn to the issue. 19 You were present during the testimony of Advocacy 20 Staff's expert, Mr. Pavlovic, who indicated that the 21 2018 main replacement projects are not reasonable, 22 necessary and prudent. Do you recall that testimony? 23 A. Yes, I do. 24 Q. Okay. And in addition, you were present today 25 when the Commission called Pat Fahn, and he set forth
Page 887 1 you voir dire the witness, if you like. 2 MR. ARMSTRONG: Yeah, thank you. I would 3 just like that opportunity. 4 THE COURT: Okay. Go ahead. 5 VOIR DIRE 6 BY MR. ARMSTRONG: 7 Q. These are end numbers? 8 A. Yes, these would correspond with basically the 9 7100 report that we supply to both the state and PHMSA. 10 What we've tried to do here is break it out by material 11 because code does not require us to do that. 12 Q. Does MDU have any other type of pipe other than 13 steel or plastic? 14 A. No. It would fall under one of those two. 15 Q. So this would reflect the total number of all 16 underground leaks not caused by excavation since -- in 17 2015, '16 and '17? 18 A. Correct. 19 Q. It doesn't include size of leaks or -- I mean, 20 do you measure size of leaks? 21 A. We do not track size of leaks. Again, if we 22 were to be asked specifically for that information, we 23 track the leak itself. So when a tech or a crew gets 24 called to this leak, whether it's a dig-in or just an 25 underground leak in this case, most likely found in our	Page 889 1 some testimony regarding PHMSA requirements; do you 2 recall that testimony? 3 A. Yes, I do. 4 Q. Okay. I want to start with respect to Mr. -- 5 or Mr. Fahn's testimony where he discussed that PHMSA 6 put in a DIMP model in -- or required a DIMP model in 7 August of 2011. Did the -- has the Company complied 8 with the requirements to prepare a DIMP model? 9 A. Yes, a DIMP program along with a DIMP model. 10 Q. Okay. And Mr. Fahn's -- that was -- number one 11 is to demonstrate the understanding of the system. And 12 that's something the Company has attempted to do? 13 A. Attempted and continue to do, yes. 14 Q. Okay. And one of the goals of the PHMSA DIMP 15 requirement is to identify threats is what Mr. Fahn 16 testified to. Do you recall that? 17 A. Yes, I do. 18 Q. And has the Company through its DIMP and PHMSA 19 plan attempted to identify threats to its system? 20 A. Yes, we have. 21 Q. Okay. Now, there was some -- there was some 22 question and testimony you heard from Mr. Pavlovic 23 seeming to imply that unless there's a leak, you 24 shouldn't repair or replace a pipe. How would you 25 respond to that?

Page 890 1 A. To me, that's the reactive approach. I think, 2 again, you can kick that can down the road. The fear 3 is that by kicking the can down the road are you truly 4 being proactive and are you being a prudent operator. 5 Q. And in Mr. Fahn's testimony, he identified 6 eight threat categories under the PHMSA model. And as 7 I recall on your slides, that would be MDU Exhibit 3, 8 you identified those same eight threat categories, 9 correct? Or generally? 10 A. Generally, yes. 11 Q. And leaks is only one of the categories that's 12 identified? 13 A. Correct. 14 Q. And as a reasonable and prudent operator, do 15 you consider it -- or excuse me, let me rephrase that. 16 As an operator, do you consider it reasonable 17 and prudent to only respond to leaks? 18 A. I do not. 19 Q. Okay. Now, the third thing -- the third step 20 Mr. Fahn testified to was the DIMP model should be run 21 to evaluate and rank risk. Do you recall that 22 testimony? 23 A. Yes, I do. 24 Q. Did Montana-Dakota run DIMP models in 2017 in 25 evaluating the 2018 projects?	Page 892 1 A. Yes, we did. 2 Q. Okay. And Mr. Fahn said the next step under 3 the PHMSA plan would be then to implement measures to 4 correct risk and implement a plan based on the data. 5 Did Montana-Dakota take that next step in 2017, 2018 6 planning for the 2018 projects to identify the data and 7 implement a plan to address risks? 8 A. Yes, we did. 9 Q. Okay. And can you describe how that came 10 about? 11 A. The results of that are basically what you see 12 in that -- the Exhibit PCD-2. That is the plan that 13 came from the latest run of the DIMP -- the DIMP model. 14 Q. And that plan identified the seven projects in 15 2018, including Gladstone, Fairview, New Salem, 16 Eldridge, Barlow, Cleveland and Taylor? 17 A. Yes, it did. 18 Q. Okay. Following the -- running the DIMP model, 19 identifying them, evaluating that data, ranking the 20 risks, and formulating a plan, has the Company then 21 proceeded to implement the plan as identified by Mr. 22 Fahn? 23 A. Yes, we have. 24 Q. And is that process currently under way? 25 A. Yes, it is.
Page 891 1 A. Yes, we did. 2 Q. Okay. And for example, when I look at your -- 3 your file, the DIMP plan filed as PCD-2 to MDU Exhibit 4 3, you have the DIMP model plans and the risk ratio 5 scores for all of the 2018 projects? 6 A. Yes, we do. I would clarify that the way 7 you -- what you asked was had we run the DIMP model for 8 2017 -- in 2017 for 2018 projects identified. Yes, we 9 had. I would also add that the latest DIMP model was 10 run early in 2018. Those risk ratios that are 11 represented in PCD-2 are representative of the latest 12 run, which is the 2018 DIMP model run. 13 Q. Thanks for clarifying that, Mr. Darras. 14 And then the thing -- after you run -- Mr. Fahn 15 said after you run the data, it's -- the Company should 16 rank the data from the DIMP model. In fact, did 17 Montana-Dakota do that in preparation for the 2018 18 projects? 19 A. Yes. You rank the -- you rank the risks, then 20 you evaluate those risks. And upon evaluating those 21 risks, yes, we did rank the projects. 22 Q. And pursuant to Mr. Fahn's testimony, in 23 preparation for the 2018 projects, did the Company 24 evaluate the DIMP data and use that in evaluating the 25 risks?	Page 893 1 Q. Mr. Darras, in your 16 plus years working in 2 Montana-Dakota's Natural Gas operations, including your 3 recent history as the vice president of operations for 4 Montana-Dakota's Natural Gas operation, do you believe 5 the plan you put in place for the 2018 replacement 6 projects was reasonable, necessary and prudent as -- in 7 your role as vice president? 8 A. Yes, I do. 9 Q. Now, Mr. Fahn's testimony, Mr. Darras, was that 10 after the plan's implemented, step five would be to 11 evaluate the program. Does Montana-Dakota have plans 12 to evaluate the 2018 projects? 13 A. Yes, we do. 14 Q. And would that be part of the testing process 15 that you described? 16 A. That would be one portion of it, yes. 17 Q. I need to go back to the implementation, Mr. 18 Darras. I forgot to ask you a question I wanted to 19 address. 20 Just so we're clear, the early vintage plastic 21 replacement and testing of the three cities 22 identified -- the three communities identified only 23 comprises about 15 percent of the 2018 projects the 24 Company is seeking recovery for in this case? 25 A. That sounds about right, yes.

Transcript of Proceedings Volume 3

6/1/2018

Page 68 (894 - 897)

Page 894 1 Q. Okay. The other four -- roughly 4.8 million 2 projected costs for those 2018 projects are for 3 low-pressure early vintage steel systems? 4 A. Correct. 5 Q. And can you just explain to the Company -- or 6 excuse me, explain to the Commission why the Company 7 and you in your role as vice president, based on your 8 history and work experience, determined that it was 9 reasonable, necessary and prudent to address the safety 10 of the low-pressure steel pipe in 2018? 11 A. First off, I would just say as a result of the 12 DIMP model itself. And then subject matter expert 13 verification of that. Like you say -- or like I've 14 tried to say in my past testimony is that what we've -- 15 what we find when we dig up these leaks, for instance, 16 the ones that are on this exhibit that we pointed out, 17 if you look at 2016, for instance, there's 54 leaks, 18 above-ground leaks on steel. What we have 19 documentation for, written documentation that we can 20 prove as fact, 13 of those were identified as dresser 21 couplings or mechanical fittings. 22 And if you look at 2017, the 45, we can also 23 identify that 14 of those were either filled out by the 24 techs again as mechanical couplings or dresser 25 couplings. That is a very high percentage of total	Page 896 1 A. I have. I've responded, I would say, to 2 several leaks. The issue you have, I think, from a 3 field standpoint is the real threat when you're 4 responding to it of how you -- how to mitigate that. 5 And again, the reason is, as past people have 6 testified, is it is a slow leak. Nobody's -- nobody's 7 doubting that or going against that. But that's a fear 8 that's really felt when you're in the field. The 9 people responding will tell you that. They would much 10 rather respond to a higher pressure line. 11 The buildings around it -- again, like I tried 12 to explain in my testimony before, is that the 13 migration is really the issue. We have three foot of 14 frost on average in North Dakota during the winter. 15 Again, that's why systems are different. If you go to 16 Florida, California, Texas, low pressure is probably 17 not as big of a concern. It is a serious concern here 18 because it has no place to escape. The pressure is not 19 there to potentially go through a crack or to hear that 20 at the building. So it's such a slow leak that it 21 finds the course of least resistance, and in the winter 22 when we are basically a sheet of ice, it -- those areas 23 of least resistance oftentimes could be in a building 24 through some type of a crack in a foundation or a 25 penetration from a sewer line or a water line,
Page 895 1 leaks. 2 And again, we do not get into -- we have not 3 gotten into the detail of each one of these at this 4 point. But when you look at a generality of what we -- 5 what we see on paper, what our folks tell us in the 6 field, we feel strongly, again, that the mechanical 7 couplings that are associated with low pressure are an 8 issue. And we feel that's a risk. It's justified or 9 it's confirmed through our DIMP model and, again, 10 through our expertise. Low pressure is -- it's one 11 system -- I will say that I apologize for not probably 12 reviewing the Allentown, Pennsylvania incident more, 13 but I did take a look at that last night, pulled up a 14 quick news article because I suspected it may be low 15 pressure. It was. So, again, was it cast iron low 16 pressure versus steel low pressure? Yes. Was it a 17 bell and spigot fitting -- or connection that 18 potentially failed? I didn't get into that. But 19 again, it was low pressure. 20 So I've heard other witnesses say low pressure 21 doesn't produce or doesn't leak enough gas to cause a 22 hazardous atmosphere. I disagree. 23 Q. Have you had experience in Bismarck with 24 concerns in your role with MDU of low-pressure leaks in 25 the Bismarck area?	Page 897 1 something like that. 2 Again, has it happened? It hasn't with us, 3 fortunately. And I think that's the big fear. 4 Q. And Mr. Darras, to the response that -- have 5 you had to evacuate buildings in Bismarck because of 6 gas leak concerns? 7 A. Yes, we have. 8 Q. And can you just briefly explain -- I mean, 9 just to -- when that was and what happened? 10 A. One, it would -- one of the larger ones I guess 11 I was on was probably about 2003 or '04, downtown 12 Bismarck in the back alley of -- I believe it was 13 KMOT's building, and it ended up being a medium 14 pressure line. 15 The issue was is that when we responded, you 16 don't know where it's at. This wasn't winter. This 17 was summer, I believe. But it's wall-to-wall concrete 18 back there. I was on the response with actually -- not 19 the initial response, but one of our foreman called and 20 said he was having a very difficult time locating the 21 leak. So I went there, along with several others. 22 When we got there, we ended up bringing quite a few 23 more people in and ended up evacuating buildings. 24 Again, it took us a long time -- you try and 25 pinpoint the leak. This was a medium pressure line

Page 898 1 that was leaking. Had it been low pressure, probably 2 would have taken us longer to pinpoint that, would have 3 evacuated potentially more buildings. We were 4 ultimately able to locate it, and it was on the medium 5 pressure line. 6 But, again, just everything that runs through 7 your mind when you truly respond to these. If you were 8 to bring in one of our construction folks or several of 9 them, and they said give me an opportunity for which 10 one you'd rather respond to, I believe -- I'm not 11 speaking for them -- but my experience shows that they 12 feel safer themselves responding to a medium pressure 13 or a higher-pressure leak. 14 Q. And the final step Mr. Fahn testified to was 15 that under PHMSA the Company also needs to conduct 16 periodic evaluations and improvements to its DIMP plan. 17 Is that something Montana-Dakota has done in the past 18 and will continue to do? 19 A. Yes, we continue to do that. Again, that's 20 what I mentioned was done here at the end of 2017, 21 running that. So it's a continuous improvement. You 22 continually improve basically everything about the 23 model itself, adjusting risks, the testing program that 24 we are working or have planned for the early vintage 25 plastic pipe. That is the purpose of that right now is	Page 900 1 that everything was fine. North Dakota we oftentimes 2 do not get a response if everything's okay. That's not 3 saying that everything was okay on that, but at times 4 we will not get that response. 5 Q. And as part of your -- as part of the Company's 6 periodic evaluation attempts to improve its DIMP model 7 and plan, will you continue to work with PSC staff and 8 others to continuously update and improve the Company's 9 plan? 10 A. Yes, we will. 11 MR. SANDERSON: Mr. Darras, I have no 12 further questions. Thank you. 13 THE COURT: Mr. Armstrong. 14 15 CROSS-EXAMINATION 16 BY MR. ARMSTRONG: 17 Q. Mr. Darras, do you have PCD-2 available to you 18 again? As I understand PCD-2, it's the -- oh, sorry. 19 Maybe you know this question off the top of 20 your head. You're kind of the one primarily 21 responsible for it, correct? 22 A. Yes. 23 Q. The plan is 2018 to 2022, correct? 24 A. Yes. 25 Q. Okay. So this plan, PCD-2, doesn't include any
Page 899 1 to get more verifiable data to put in. We will take 2 that data and change our risk model based on what we 3 get back from that. 4 Q. And with respect to -- I believe what you said, 5 the DIMP model changed when you updated it in early 6 2018? 7 A. Yes, it did. 8 Q. Okay. Finally, Mr. Darras, am I correct that 9 Pat Fahn and some staff from the PSC were at MDU with 10 you and your team for two days in February of 2018 11 reviewing the DIMP model? 12 A. I -- I know they've reviewed the DIMP model. I 13 don't believe it was February. I believe it was March. 14 Q. Oh, March of 2018? 15 A. Yes. And it was part of a four-state DIMP 16 model review, annual review. And I know North Dakota 17 was part of it. I don't know who from North Dakota 18 staff was at that. 19 Q. Okay. Following Commission's review of the 20 DIMP plan, Montana-Dakota's DIMP plan, have you 21 received anything from the Commission indicating that 22 the Company's not following PHMSA standards with its 23 DIMP model and integration plan? 24 A. To my knowledge, the only state that we've 25 heard back from officially is South Dakota claiming	Page 901 1 projects prior to 2018? 2 A. The plan does not, no. 3 Q. Okay. So when Staff is looking at the SSIP 4 that you proposed, it's 2018 forward, just by the 5 nature of the plan, isn't it? 6 A. The projects identified -- and if you read into 7 the plan, it gets the specifics of the plans -- of the 8 plan, basically the projects are identified per year. 9 Q. Right. Going from 2018 forward? 10 A. Correct. 11 Q. Okay. For instance, the Richardton 2017 12 project is not part of this plan? 13 A. No, it's not. But I -- can I just make sure 14 that I've got that? I don't think it's in any of these 15 books. Just so I've got it. 16 Q. Yeah, it's attached to your rebuttal testimony. 17 A. I don't think that's here though. 18 THE COURT: It's in that one notebook, 19 MDU-3. 20 THE WITNESS: There we go. Thank you. So 21 which page then were you on? 22 BY MR. ARMSTRONG: 23 Q. The plan. PCD-2. 24 A. Okay. 25 Q. Well, here, maybe we can just walk through a

Transcript of Proceedings Volume 3
6/1/2018

Page 70 (902 - 905)

Page 902	Page 904
1 little bit. You're at the very front page? 2 A. Yes. 3 Q. Page 1 of 18, it says, "Revision one, March 15, 4 2018," correct? 5 A. Correct. 6 Q. So that's first revised. So that's a revised 7 from -- if you go to page 3, that's revised from 8 January 4, 2018? 9 A. Yes, it is. 10 Q. That's the origination of this document? 11 A. Yes. 12 Q. Okay. So before that, anything wasn't under 13 this plan? 14 A. This is not the plan. This is the program, the 15 first couple pages. 16 Q. This is the 2018 -- okay. So this is the 17 program which started in January 4th of 2018? 18 A. Yes. 19 Q. Okay. And then the plan is on page 7 of 18, 20 correct? 21 A. Correct. 22 Q. And that's dated March 19, 2018? 23 A. Correct. 24 Q. So every -- it's all 2018 forward, correct? 25 A. Yes, it is.	1 basically -- by repairing the leak, we remove the 2 immediate hazard. 3 BY MR. ARMSTRONG: 4 Q. And every time there's a leak, you don't go in 5 and replace the whole neighborhood, right? 6 A. Immediately? 7 Q. Yeah. 8 A. No. I would say each time there's a leak, we 9 evaluate whether we will replace the whole 10 neighborhood. 11 Q. Okay. And I'm correct, aren't I, that MDU-18 12 isn't broken down between EVSP and EVPP, correct? 13 A. 2018 isn't? 14 Q. No, MDU-18. The new exhibit. 15 A. Correct. 16 Q. You want to put that in front of you. This is 17 what I'm talking to you about now. 18 A. Okay. 19 Q. So I missed the number. I think it was for 20 2016, you said a certain amount of the steel leaks 21 were -- you identified mechanical or dresser couplings? 22 A. Thirteen. 23 Q. Thirteen. So 13 out of 54? 24 A. That have been confirmed. 25 Q. Okay. So that leaves 41 other ones?
Page 903	Page 905
1 Q. Okay. Thank you. Richardton 2017 obviously 2 then wasn't under this plan? 3 A. That is correct. 4 Q. Okay. MDU-18, these total leaks repaired by 5 material type are all prior to this plan? 6 A. Could you repeat that? 7 Q. These leaks identified are all prior to this 8 plan? 9 A. The leaks? 10 Q. Yeah. 11 A. Which leaks identified? 12 Q. The ones identified in MDU-18. 13 A. Yes. 14 Q. Am I correct that those leaks were all detected 15 and repaired and replaced and taken care of? 16 A. Yes, according to code. So it could be a class 17 one, two or three, which we've heard about that 18 earlier. 19 Q. So -- and by doing that, you're able to 20 continue to operate a safe plan, right? 21 A. A safe plan or a safe system? 22 Q. A safe system. 23 THE COURT: He's getting tired. 24 THE WITNESS: We can continue to operate a 25 system that is in use. Is it safe to the moment? We	1 A. Yes. 2 Q. Okay. 2017, you said 14 mechanical or dresser 3 couplings, correct? 4 A. Correct. 5 Q. That leaves 31 other ones? 6 A. Correct. 7 Q. And for the plastic, what? Any information on 8 those? 9 A. Again, we can get information. I can say 10 that -- 11 Q. Let me ask you this. 12 A. Yes. 13 Q. As we sit here today, for these 2015, '16 and 14 '17 reported leaks, can you identify any of those as 15 being from Aldyl A that has that resin that makes it 16 susceptible to brittle cracking? 17 A. We could definitely identify that they're Aldyl 18 A. And I would be speculating, but it would be a high 19 percentage of those 27, 45 and 28 that would be on 20 Aldyl A. 21 Q. Okay. How about as far as with the -- I don't 22 know if it's polymer resin at this point that's -- 23 A. LDIW resin. 24 Q. There you go. Can you identify any of those 25 that are based on --

Transcript of Proceedings Volume 3

6/1/2018

Page 71 (906 - 909)

Page 906 1 A. That is the purpose of the study. 2 Q. You mentioned a 2003 leak on a medium pressure 3 line. How can we tell how many of these leaks on 4 MDU-18 are medium versus low pressure lines? 5 A. Again, we could do that. We're -- that is part 6 of the entire, I'm going to say, continuous improvement 7 of our system. We did not track this by material at 8 all until 2016. We have a brand new leak management 9 system. We have two systems that track leaks, GIS, 10 which is -- we have proven to ourselves we did not like 11 that system because the data it produces. When I had 12 them run this, it proves that to ourselves again over 13 the last 24 hours that those numbers don't match. 14 We are inspected by the PSC, and we do have 15 this new leak management program now, DOT Web App is 16 what we call it. The PSC thinks that is a -- from what 17 I understand, the PSC feels that that is a very good 18 system for leak management. And again, all of that 19 information that you're asking for is available. We 20 are taking -- we built this plan off of the information 21 that we have readily available today based on the DIMP 22 model, which leaks are one piece of the DIMP model, one 23 aspect of the DIMP model. There are seven others. And 24 then there is a consequence factor and there is the -- 25 can't think of it. Again, there's millions of	Page 908 1 MAJOR UNSICKER: No questions, sir. 2 THE COURT: Ms. Jeffcoat-Sacco? 3 4 CROSS-EXAMINATION 5 BY MS. JEFFCOAT-SACCO: 6 Q. The meeting that you had with gas safety staff, 7 I'm assuming, from several states where you went over 8 the DIMP model, was that a -- was that a required audit 9 of some kind, or was that an informational -- you know, 10 you were showing the state gas safety people how it 11 worked and what you had? 12 A. It was the annual inspection of the DIMP model, 13 the way I understand it. And we have tried to combine 14 the four states. I cannot tell you which four. I know 15 it was South Dakota, North Dakota, but I would be 16 speculating on the other two. 17 Q. Okay. Somewhere in the plan part, the second 18 half of the exhibit, I read that, you know, the sites 19 were selected based on ranking in the DIMP model. Do 20 you -- do we have in a data request response or some 21 other work paper or something, do we have the actual 22 ranking? It didn't say it was the highest four. It 23 said they were selected from. So I don't want the 24 million calculations -- I personally don't -- but is 25 there a resulting DIMP summary that ranks the severity
Page 907 1 calculations that go on behind the scenes. It takes 2 two weeks approximately to run the North Dakota DIMP 3 model alone. 4 Q. And let me just ask this. In 2015, was MDU a 5 safe and prudent operator? 6 A. Yes. 7 Q. In 2016, was MDU a safe and prudent operator? 8 A. Yes. 9 Q. In 2017, was MDU a safe and prudent operator? 10 A. Yes. 11 Q. And all of that is part of your routine 12 maintenance and repairs allowed you to be a safe and 13 prudent operator? 14 A. In my opinion, yes. 15 Q. And going forward, it's not routine maintenance 16 and repairs, it's accelerated maintenance and repairs, 17 correct? That's what you're proposing? 18 A. Oh, no, we do routine maintenance and repairs 19 every day. We're most likely doing them as we speak. 20 Q. Oh, I don't disagree with that. But the SSIP 21 project is accelerated replacement and repairs, 22 correct? 23 A. In 19, yes. 24 MR. ARMSTRONG: No more questions. 25 THE COURT: Major?	Page 909 1 or the risk, the whole objective? 2 A. Yes, there is again. And I think the -- I 3 would be speculating to know that we provided that 4 based on -- I know we've talked about it, but I would 5 be speculating if I said that it's been provided in 6 full. Again, it would be more of those what are we 7 asking for? Is it per town? 8 What we tried to do when we offered to PSC 9 staff, along with their expert witness, to come into 10 our building downtown Bismarck was to do that exact 11 same thing because we were getting such a realm of data 12 request that as I spoke to the folks that run the DIMP 13 model, we didn't -- we honestly did not know how to 14 respond to them, because we felt we knew what they were 15 asking. But we asked them to come to our facility so 16 we could show it on a big screen and try and get into 17 it. And even when we did that -- Mr. Fahn has left -- 18 but he -- when they ask for something and we try to 19 show them, there's a disconnect on what exactly you're 20 looking for. Again, a lot of it revolves -- I've heard 21 this throughout my testimony and others is that 22 everybody's focusing on a leak. And again, what we're 23 trying to do is prevent leaks with this. We don't want 24 leaks. 25 Q. And I understand that. And I need to set the

Transcript of Proceedings Volume 3

6/1/2018

Page 72 (910 - 913)

Page 910 1 record clear here. Pat Fahn is not on Advocacy Staff 2 in this. He testified as manager of gas safety. If he 3 was down visiting, it was in the gas safety role. And 4 if he needs to contribute any further evidence, you'll 5 find out about it. Okay? 6 But I was just curious, I do know that these 7 risk ratios are in there for the five or six sites. 8 But I was just curious, the numbers don't mean anything 9 to me unless I see the entire ranking, like are they 10 the top five, or are they -- those are their risk 11 ratios, but there's 49 other places that are higher 12 risk. I was just curious about a very simplified DIMP 13 result. I don't know if you have that in here? 14 A. I don't believe it's anywhere in there. And 15 what I can say is they are not the highest risks. The 16 ones that are in there, those five or six that are 17 shown, are not the highest. 18 I can explain, or I think we tried to explain 19 in the plan itself where we came up with the three 20 towns and why we came up with them. The plastic was 21 the '71 town, the '81 town, and the mostly unknown 22 town. And when we say "unknown," again, it's unknown 23 vintage to us. Most of this pipe we know vintage. 24 But to get to your question of if it's there, 25 no it's not. And I will say they're not the highest.	Page 912 1 or Eldridge, even back in 1970, that's not that long 2 ago as Mr. Schock pointed out, wasn't there a 3 requirement then to submit an RFP and put 4 specifications in there for the type of pipe you wanted 5 to use? 6 THE WITNESS: Yes and no. I think you can 7 find it. Again, that's why we tried to separate it 8 based on pre '70 versus post '70, pre-code versus post 9 code. Some places did that. Just they kept the 10 invoices. And when I say that, even within MDU, we 11 could probably go to a field office in one location and 12 they may have kept that with the work order file -- we 13 have work order files. And in the next place they may 14 not have, because it wasn't a requirement. 15 So the material type -- and that's where I 16 think there's a little confusion, too, is when we say 17 "unknown," officially to PHMSA, that's the unknown 18 vintage. When I speak "unknown," we may know the 19 vintage, we may know that it's 1939 pipe, like I showed 20 in the picture. What we don't know is that there's 21 five couplings there. So those -- where I think it was 22 Mr. Pavlovic that said that they opened it up and it's 23 a great system, GIS is a great system. It is. But 24 when you open it -- when he says, click on a piece of 25 pipe, you're going to have vintage size, the
Page 911 1 Could we provide that? Yeah, again, you can. But what 2 I tried to explain yesterday, or the day before 3 yesterday, in my testimony was that doesn't necessarily 4 mean that that's what we will focus our plan on just 5 because it's the highest. And again, what we broke it 6 out, what you're seeing is town. There could be a 7 piece of pipe somewhere in Glasgow that's got a -- or 8 Eldridge that's got a higher risk score than the 9 average for the town. 10 Q. Okay. And I understand that. I remember that 11 testimony. And if we need more, we'll ask for it. 12 Thank you. 13 THE COURT: I have a couple -- 14 COMMISSIONER FEDORCHAK: Judge, it sounds 15 like Illona wants some DIMP sum. 16 THE COURT: I have a couple questions that 17 occurred to me the other day when you were testifying 18 and then were revived when Mr. Pavlovic was testifying. 19 And when you're creating this DIMP model, I would 20 assume an effort has to be made to go back to 1970 or 21 1980 and find construction invoices to determine what 22 kind of pipe was purchased. Is that something that's 23 done? I mean, when you -- let me ask you a little bit 24 more. 25 So if you let a job out for pipe in Cleveland	Page 913 1 information that we have, and then you're going to have 2 null, null, null, null, null. That's what we -- and 3 that's what the intent of DIMP is to try to do is to 4 fill those nulls over time. 5 THE COURT: Well, but the question I'm 6 asking is was there an attempt made to go about that in 7 a way other than digging in the ground? In other 8 words, looking at old construction contracts, even if 9 they're out in field offices, because MDU has been a 10 publicly traded company for quite a while, correct? 11 THE WITNESS: Correct. 12 THE COURT: And during that time, you have 13 responsibilities to shareholders and customers and 14 regulators through all that time, whether it's pre-code 15 or post code. There was those things to deal with. 16 Correct? 17 THE WITNESS: Yes, there was. 18 THE COURT: And so I would assume there 19 would be some kind of a record of a construction 20 contract with an RFP that said to this contractor, we 21 want you to put in three miles of a particular type of 22 pipe. Isn't that the way it was done? 23 THE WITNESS: Yes, I would guess that if 24 there was a true RFP there would be a paper trail. It 25 would not be electronic. We are -- we have taken the

Transcript of Proceedings Volume 3

6/1/2018

Page 73 (914 - 917)

Page 914 1 step of taking all of our paper files and putting them 2 on a microfiche basically that we hope to be able to 3 link to the GIS that we show so when we click on that 4 it will pull up all the potential documents, if there 5 was a contractor. A lot of that work we have to 6 remember, especially in North Dakota, was done with 7 internal contractors. So you order pipe at the 8 beginning of the year and it may not get installed for 9 that entire year or a year later. That's the unknown 10 attribute is because you create the work order but you 11 don't know where that pipe came from. Does that make 12 sense? 13 Whereas in today's standard and requirement is 14 you do need to keep that lot number. Again, we can -- 15 we can dig it up today and hopefully be able to see the 16 print line, like we did in Eldridge. We can now take 17 that print line and right on the print line of Aldyl A, 18 it will tell us what year it was manufactured and the 19 lot number. What we don't know is if that lot number 20 contains LDIW. So we have to send it in. And that's 21 the information that was not kept in '70 or '71 when it 22 was put in. 23 THE COURT: Okay. But I guess my question 24 is does PHMSA, as part of that integrity management 25 program that Mr. Fahn talked about earlier today, does	Page 916 1 you take over another company, correct, that includes 2 your department? 3 THE WITNESS: To my knowledge, yes, if we 4 were to take over another, that would be part of the 5 due diligence is to evaluate the records, not -- if 6 they don't have the records. That's part of the due 7 diligence that is part of an acquisition or whatever it 8 is, is to decide does the company purchasing that want 9 to take on that higher risk or that risk that's 10 associated with that system. 11 THE COURT: That's all I have. 12 Commissioners? Commissioner Kroshus? 13 EXAMINATION 14 BY 15 BY COMMISSIONER KROSHUS: 16 Q. Well, you beat me to the punch on Minot, so I 17 don't have to ask that. 18 The weather. From winter to winter, does that 19 have a significant impact on the number of leaks you're 20 going to experience? 21 A. Yes, it does, in my opinion. 22 Q. So in 2016, was that -- any of that weather 23 related, deeper frost line? 24 A. My experience would say there's an anomaly 25
Page 915 1 that require companies to go back through those other 2 lines like those documents and see if they can recreate 3 what their system includes, at least have more of a 4 clue than just having to dig it up and chuck it all 5 out? 6 THE WITNESS: On the distribution side, it 7 does not. It's probably going to get there on the 8 transmission side. They've done that to a higher 9 extent. 10 Again, these are two different rules, two 11 different pressures, two different reasons for why 12 they're out there. We're talking nationwide millions 13 and millions and millions of feet of pipe that would 14 have to be verified. And I think where PHMSA's 15 stepped -- this is my opinion -- where PHMSA stopped 16 short of doing that is, is it in the best interest of 17 the consumer to spend all that money doing that for 18 what you're probably going to find. That's my opinion. 19 THE COURT: Okay. And one other question. 20 When -- and when you took over that Minot company, for 21 example, do you know what year that was? 22 THE WITNESS: I believe it was around the 23 mid-50s. 24 THE COURT: Okay. Isn't that -- I mean, 25 certainly now there's a due diligence requirement when	Page 917 1 there, and that could potentially be one of the issues, 2 yes. 3 Q. Okay. And then we keep talking about early 4 vintage plastic pipe, early vintage steel pipe. But 5 couplings are a significant point of failure. Are 6 those -- is that because they're early vintage 7 couplings, or is that more of a generic term when we're 8 talking early vintage plastic pipe, that's not just the 9 pipe, it's the couplings, it's everything? 10 A. Yes, and I think the coupling themselves -- 11 again, the picture that we showed, they'd been in the 12 ground since '39 and we didn't dig them up because they 13 were leaking. When you tie that to the weather we 14 have, I will say again if you bring that same person in 15 and ask them if they want to respond to a low pressure 16 leak, they're going to tell you they don't like the 17 months of March, April and May in North Dakota with 18 coupling systems. 19 Q. Do you retrieve the failed parts and group them 20 by chance and -- 21 A. We do. We -- if they're cut out -- again, we 22 know what the fitting is. Some are left in the ground. 23 We will do tightening of the bolts that hold those 24 together. We will do potentially an encasement around 25 that where you put another piece of pipe around that

Transcript of Proceedings Volume 3

6/1/2018

Page 74 (918 - 921)

Page 918 1 fitting. We strap the fittings. Again, there's 2 different ways to do that. That is more of a temporary 3 fix in our opinion where we would -- we have eliminated 4 the immediate hazard and then knowing that we will go 5 back at a later date and cut that piece out or replace 6 that piece. 7 Q. Okay. And then the last question is testing 8 them -- testing failed components or sections of pipe 9 hasn't -- hasn't been done a lot, correct? 10 A. No, it has not. 11 Q. Or it hasn't been regular procedure to test? 12 A. No, it has not. 13 Q. Okay. But it would be going forward? 14 A. Existing, it is not a regular procedure. 15 Anything new going in the ground, any replacement, yes. 16 Or any type of a dig-in, for instance, has to be 17 retested. 18 COMMISSIONER KROSHUS: Okay. Thank you. 19 THE COURT: Chairman Christmann. 20 21 EXAMINATION 22 BY CHAIRMAN CHRISTMANN: 23 Q. Clarify for me again these class one, two and 24 three leaks. 25 A. Class one is an immediate hazard that needs to	Page 920 1 pipes. I presume that on each of those, a sample was 2 taken if it wasn't clear what kind of pipe it was, or 3 if it was clear, a record was kept of it so that you're 4 seeing if these are occurring in certain types of 5 plastic and in which communities to help build a 6 database of where your problems are. 7 A. I can say that in '17 -- I can say that I 8 personally implemented a directive that if we were 9 doing anything with Aldyl A -- and I can't quote the 10 date, I can get that information, but it was in the 11 last year to two years maybe where I've -- I issued the 12 directive to the field that if we dig up Aldyl A we do 13 keep a sample of that and we will be sending it in. 14 Prior to that, there was nothing telling our -- 15 internally with MDU telling our field folks that they 16 had to take a sample. Not to say we didn't in some 17 cases, or if there was a leak at the riser where the 18 riser didn't end up in a shop or in a warehouse 19 somewhere. 20 Q. It seems like a lot of data that could have 21 been collected rather than now rebuilding whole 22 communities. But I appreciate that you at least 23 implemented that. 24 A. That's that continuous improvement that we are 25 working on.
Page 919 1 be handled right away. Class two is a leak that needs 2 to be monitored, and it can be upgraded or downgraded. 3 And class three is basically a leak that doesn't need 4 to be fixed right away, or monitored. 5 Q. But you have a record of that, I presume, as 6 part of this DIMP program that is -- where you're 7 supposed to be always updating it and trying to learn 8 more about your system. So you would know if -- and 9 I'm trying to think of a couple of similarly sized 10 towns, I'm not even sure if these both have gas -- but 11 if Glen Ullin and Hebron maybe got put in at different 12 times and one of them has far more class three leaks 13 than the other, that that would be elevating as a 14 priority to you that if one needed to be replaced, then 15 that would be the one where you have all these class 16 three leaks, right? 17 A. Yes, it would. It would be one of the factors. 18 Again, that's where I keep going to the DIMP program is 19 leaks are one risk that we look at. So just because 20 there's more risks in Glen Ullin versus New Salem does 21 not necessarily mean to us on the data we're getting 22 back from our DIMP model that we would do Glen Ullin 23 before New Salem. 24 Q. Okay. And then as I look at these leaks, 25 there's been about 100 in '15, '16, and '17 on plastic	Page 921 1 Q. The \$800,000 in the 2018 projects for plastic 2 versus -- I can't remember the number, like four and a 3 half million or something, on steel, and I look at 4 these numbers, there are more leaks in steel versus 5 plastic, but not even -- not even a one and a half to 6 one ratio. Is the reason that you're focusing so much 7 more on steel because of the low pressure nature and 8 your worries that you had expressed about being able to 9 find those and that they're more dangerous than the 10 high pressure leaks? Or why such a disparity between 11 steel replacement and plastic replacement this summer? 12 A. I think it's more of an SME, subject matter 13 expert, known to us. And I think if you were to look 14 -- again, we could pull the data on the plastic. I 15 think what we're going to find is that a lot of those 16 are at the T. So it's not the pipe itself. Or at the 17 fitting at the riser. Again, this is my experience 18 saying that chances are if we were to pull the 19 documentation on this, which we have, so it's not the 20 pipe ourselves. So that's really where from the 21 expert, or from our -- as we evaluate what we should be 22 doing, we do feel comfortable that the LP is our 23 highest risk. That is what the folks that are coming 24 up with this program, this plan, this future process of 25 doing this, we feel that low pressure at this time is

Page 922 1 our highest risk. And we are trying to do our best to 2 get as much data as we can through these other methods. 3 Q. And the fittings and valves on plastic as well 4 as on steel pipe, we talked about this with the plastic 5 pipe itself, but since 2017, when you're doing repairs, 6 whether it's these or the ones that are hit by outside, 7 a third party, you are keeping records of that so that 8 you can -- because would there be a likelihood that you 9 might find a tendency for certain fittings that were 10 put in at certain times to be causing more problems or 11 certain construction crews at certain times, and so 12 those would -- the data would start to indicate that 13 that community should be a priority as opposed to 14 another community? 15 A. That is correct. One other thing I would offer 16 is that this year in 2018 we do have a, what we're 17 calling a service point study where we hired a 18 contractor to go out and they're going to survey -- I 19 can't remember the number of services -- this is across 20 MDU's territory again, so the four states, five states 21 with Minnesota, both electric and gas. So we will have 22 an individual at each service point. This is a four to 23 five-year program that we've implemented to try and 24 gather, again, the data like you're saying, these -- 25 the field experts can look at a riser and tell you what	Page 924 1 that are. So your data acquisition should go pretty 2 quickly. Convince me that we're not just a little 3 ahead of ourselves here in approving this SSIP plan 4 when we should wait and let you collect some data 5 first. 6 A. I would say that we are not collecting data on 7 the low pressure early vintage steel pipe. We have all 8 the data we need to assign the risk that we've assigned 9 to it. I do think it could be argued the early vintage 10 plastic pipe -- and again, that's -- when I look at 11 what was initially sent out to the group, and my 12 argument, which I didn't say, was that's not the 13 intent. I did in rebuttal, but I didn't say -- to me, 14 that wasn't the intent of why we sent that plan out. 15 The intent was a high level estimate. 16 Saying that, we internally chose -- we didn't 17 get a recommendation from anybody saying that is 168 18 million, like you're saying, Commissioner, is that -- 19 is that reasonable and is that prudent to just go out 20 and -- I heard that today. Our plan was to go and 21 replace \$168 million worth of Aldyl A pipe. No, that 22 was not the plan. I never said that in any testimony. 23 And I'm not saying it today. What I said was that was 24 an estimate -- a high-level estimate if we did replace 25 it all, it would cost in today's dollars 168 million.
Page 923 1 type of riser that is. Can I? I can tell you some of 2 them. I can't tell you the difference between one that 3 was put in, in '70 versus '75 maybe whereas we have 4 people that can. These experts -- or the contractors 5 that have been going out have been taught by these 6 experts on what to look for. 7 So that program is brand new to us. It's, 8 again, one of these continuous improvement things that 9 we are trying our best to gather as much data as we 10 can. And that's why I say today, this low pressure 11 program that we have out there, it is what we feel is 12 our higher risk. But we could get something back from 13 that which would indicate that we need to go a 14 different route and focus on a -- it may not be the 15 Aldyl A pipe, but it might be the riser that's 16 associated with that Aldyl A pipe. 17 Q. Okay. So I'm going to give you one opportunity 18 here to just convince me why you've got systems out 19 there where they're anywhere from a few years to quite 20 a few decades old, and you've testified that you have 21 been running a safe and responsible system, and it's 22 only within the last year that you implemented the 23 policy of actually evaluating the materials when you do 24 leak repairs, and you do 50, 60 a year that were not 25 caused by third parties, I assume a pretty fair number	Page 925 1 I did not say that we were going to replace 168 2 million. And I did, I believe in my testimony, say I 3 think it would be in all of our best interests if the 4 study comes back and we do not have to replace 168 5 million. 6 So I think the two parts to the question is 7 early vintage steel pipe and the risk associated with 8 the low pressure piece of that, we need to do, in my 9 opinion. The early vintage plastic study we need to 10 do, in my opinion. And part of the study, the way we 11 have laid it out, is to replace three towns to try and 12 get that. 13 I heard today 35 samples is a lot. My personal 14 opinion would probably be it's a lot, too. But we're 15 not making that decision. We're working with people 16 that have done this for years, GTI. They're the ones 17 telling us 35 and the 80 percent confidence factor they 18 need. Not us. 19 So again, these are the things we're trying to 20 do. And that's why two parts, low pressure early 21 vintage steel pipe, in my opinion, needs to be a 22 replacement program like we've got shown to do now. 23 The early vintage plastic study is what I also think at 24 this time needs to happen. 25 CHAIRMAN CHRISTMANN: Thanks, Pat.

Transcript of Proceedings Volume 3

6/1/2018

Page 76 (926 - 929)

Page 926	Page 928
1 THE COURT: Okay. Commissioner Fedorchak. 2 COMMISSIONER FEDORCHAK: No questions. 3 Thank you. 4 THE COURT: Counsel, I'll give you follow 5 up. 6 MR. SANDERSON: Very, very briefly. 7 8 REDIRECT EXAMINATION 9 BY MR. SANDERSON: 10 Q. Just quickly to respond, Mr. Darras, you were 11 asked by counsel about Richardton in 2017. You've been 12 using the DIMP model going back to 2011, correct? 13 A. Yes, we have. 14 Q. And in 2016, you were running DIMP model 15 results to determine pipe and risk factor similar to 16 what you did in 2017, correct? 17 A. Correct. 18 Q. And in 2016, your team, using the DIMP model 19 and subject matters, determined that the low pressure 20 steel system in Richardton posed a risk and should be 21 replaced -- a main replacement project for 2017 in 22 Richardton? 23 A. Yes, I do. 24 Q. The only difference between Richardton in 2017 25 and Cleveland in 2018 is four letters, S-S-I-P?	1 reporter a break and then we'll do closings. But 2 there's no more evidence that we need to put in today? 3 MR. ARMSTRONG: I'm done. 4 MR. SANDERSON: And Montana-Dakota rests 5 its rebuttal case. Sorry, Judge. 6 THE COURT: Okay. Anybody else? Anything 7 else? 8 Okay. So we'll take a break just until 4:10 so 9 you guys can get your thoughts together for your 10 closings, court reporter can have a little break for 11 her ears and eyes. 12 (A break was taken at 4:05 p.m.) 13 THE COURT: Okay. Back on the record a 14 little bit after 4:10. 15 Major, a friend of mine told me that when he 16 was in the service he learned about public speaking. 17 They told him that they taught him, tell them what 18 you're going to tell them, tell them, and then tell 19 them what you told them. 20 So this is the part where you get to tell us 21 what you told us. Mr. Sanderson, closing comments. 22 MR. SANDERSON: Please, Judge. Thank you. 23 Members of the Commission, first off, I want to thank 24 you for your time here over the course of the last 25 three days. Throughout 15 witnesses over the three
Page 927	Page 929
1 A. In my opinion, yes. 2 MR. SANDERSON: No further questions. 3 THE COURT: Mr. Armstrong. 4 5 RECROSS-EXAMINATION 6 BY MR. ARMSTRONG: 7 Q. We've sat through a long three days of hearing. 8 I haven't heard any of these SMEs come up and testify, 9 have you? 10 A. I consider myself one. 11 Q. Okay. So when you say SME, it's you? 12 A. I am one of the many. 13 Q. Okay. Thanks. 14 MR. ARMSTRONG: That's all I have. 15 THE COURT: Major. 16 MAJOR UNSICKER: No questions, sir. 17 THE COURT: Ms. Jeffcoat-Sacco. 18 MS. JEFFCOAT-SACCO: No questions. 19 THE COURT: Okay. We're going to pause 20 here for a few minutes until 4:10 to give -- closings, 21 right? 22 MR. SANDERSON: I don't need any time, 23 Judge, I'm ready. 24 MR. ARMSTRONG: I'm ready, too, but I -- 25 THE COURT: I think we'll give the court	1 days, there was a lot of disagreement between the 2 parties, but there was one thing that every single 3 witness and every single person agreed upon, and that's 4 public safety has to be the number one concern. 5 I want to start with the SSIP program. As you 6 heard, approximately 25 percent of the Company's entire 7 natural gas system is over 50 years old. The testimony 8 that some of the system is over 100 years old, at least 9 documented was put in 1916, the current system that the 10 Company has been operating on for decades. 11 We come to you in a rate case and say we want 12 these -- we want to recover on these projects we've 13 done in the past. The Commission had no say in what 14 was being done, likely didn't even know these projects 15 were being done, and had no input into them. Advocacy 16 Staff, as they've indicated, does not even analyze 17 these problems and has never objected to any of these. 18 And that's the current system we've been dealing with. 19 The system that MDU -- Montana-Dakota's 20 proposing in this case under the SSIP is a 21 collaboration between the Company, between the 22 Commission and the other interested parties. And 23 there's been an assertion of lack of transparency. It 24 couldn't be more transparent. We would to file with 25 you before the projects even start, a list every year

Transcript of Proceedings Volume 3

6/1/2018

Page 77 (930 - 933)

Page 930 1 of our proposed projects. We want to work with you 2 over the next future years to ensure that these funds 3 are being utilized in the right way. 4 The very worst the case scenario we have would 5 be either rate payers either paying for projects that 6 were not necessary and them paying for that, or 7 conversely the Company spending millions of dollars on 8 projects that you later determine should have never 9 been done. We need to avoid that scenario and avoid 10 those risks. 11 We recognize this PHMSA model has started in 12 2011. These projects are new and continuing. There's 13 new information being gathered all the time. I mean, 14 just the Commission. We know -- your work through 15 NARUC, your collaboration with the Department of Energy 16 on the Infrastructure Modernization Partnerships. New 17 data is being collected, new technologies are being 18 collected. Let's work together to address this 19 problem, and a problem that's only going to get worse. 20 And one of the very important pieces that can't 21 be overlooked in this SSIP program that the Company is 22 proposing to you, there will be no recovery under any 23 mechanism unless this Commission determines it's 24 reasonable. And if not, we'll put it in the next rate 25 case and come in and determine it. You're going to	Page 932 1 Now, you've heard the Company's witnesses come 2 forward. We're not standing in front of you saying our 3 SSIP program is perfect, you must adopt this. We're 4 standing in front of you saying, let's work together. 5 We recognize Staff and AARP's concerns that rate payers 6 have, those are legitimate concerns. You know, we're 7 not looking to rubber stamp this. We're looking to you 8 to develop a system that will benefit us all, and if 9 through the Commission, through the Staff, if we can 10 find a better system, we certainly want to work in 11 that. 12 One of the things we've even addressed is to 13 address Staff's concerns. We're certainly open to a 14 filing fee so they can get the review of these projects 15 that are necessary. But one thing is very clear, 16 Commissioners, we do not need to reinvent the wheel on 17 this. There's 39 other states doing this. Let's look 18 to those states and find out what's working in Wyoming, 19 you know, what is Illinois doing? As AARP said, there 20 are certain states where it's maybe not working or 21 Commissions -- let's make sure we don't make those 22 mistakes. There's a benefit to not being first 23 sometimes, we can learn from others' mistakes. But we 24 have an opportunity to implement a program together to 25 address a concern that is not going away. And in fact,
Page 931 1 have complete control. But we want to work with you on 2 this. 3 And finally, the last piece of what the Company 4 is proposing is to true up these costs after the 5 projects are completed to make sure the rate payers are 6 not paying one penny more than what you determine would 7 be reasonable. And we believe this SSIP program as it 8 evolves, we work with you. You have experts on Staff, 9 we work with them, and we collaborate together to 10 address this issue. There can be no rational argument 11 that the system we're proposing for public safety is 12 better than what has been done for decades. There can 13 be no rational argument to that point. For the sake of 14 the safety of North Dakota's customers, we must move 15 forward and we must move past this continuing narrative 16 that somehow the Company has simply created this 17 problem to put more money in their rate payer's -- or 18 their shareholders' pockets. That is clearly not the 19 case. 20 Montana-Dakota did not create the problem of 21 aging infrastructure. It certainly did not create the 22 alternative -- come up with itself for the alternative 23 recovery mechanism. In fact, the industry shows we're 24 well behind the curve. Thirty-nine other states are 25 already doing this.	Page 933 1 gets -- looms larger each and every day we fail to 2 address this. 3 And this recovery -- certainly, we're asking 4 for a component of the recovery mechanism. And as Mr. 5 Pavlovic said, every -- of all 39 states that have 6 implemented it have implemented a recovery program. We 7 want that and are asking for that similar to other 8 states. 9 One of the things, and the appetite for a rate 10 case. And as Mr. Pavlovic testified, there's no doubt 11 if we can put an SSIP recovery mechanism in, there will 12 be less rate cases. At the end of the day, when all is 13 said and done for the Company, this case is going to 14 cost nearly half a million dollars that will be paid by 15 rate payers. That doesn't even -- the three days we've 16 spent here and the time Staff has spent and everybody 17 else doesn't even consider the thousands of hours the 18 Company has spent working on this case, putting forth 19 data requests. And people like Mr. Darras who has 20 spent three days here instead of out working on public 21 safety issues. 22 We're not saying an occasional rate case is 23 good, and certainly we can roll these in. But if we 24 don't implement a mechanism, we'll either -- as Ms. 25 Kivitso testified, the reality is nobody wants to say

Transcript of Proceedings Volume 3

6/1/2018

Page 78 (934 - 937)

Page 934 1 we'll put dollars over public safety. But at the same 2 time, money and budget is always a factor that has to 3 be considered in these capital improvement projects, 4 and that's just the reality. So implementing a 5 recovery mechanism that could assist with this project 6 that has been done in 39 states is appropriate. 7 Why now, Commissioners? We can no longer 8 afford to kick this problem -- kick the can down the 9 road. At some point we have to address this. You -- 10 us as operators of the Company and management, they 11 can't leave this to the next -- Mr. Darras can't leave 12 this problem to the next vice president of operations. 13 You as Commissioners should not leave this to the next 14 Commission. 15 The potential magnitude or estimate of this 16 problem of 200 million, we hope -- certainly hope it 17 doesn't get there. But if the testing comes back and 18 the industry what we're learning on, this has to be 19 addressed. Everybody hopes that the test results 20 produce that, hey, these certain of this plastic pipe 21 doesn't need to be done. But again, the plastic pipe 22 is not the chief concern for the Company at this stage. 23 And unlike the Staff's expert, we do not 24 believe we -- that we sit and wait until there's a leak 25 to address a problem, or more importantly there's an	Page 936 1 Barlow and Cleveland. As Mr. Darras explained, we have 2 been doing projects like this in the past. We did 3 projects like this in 2015, 2016, 2017. But because we 4 put four letters in front of the projects in 2018, 5 Staff is seeking a disallowance of 5.6 million of the 6 Company's investment. 7 You heard Mr. Darras, the vice president of gas 8 operations, testify as to the process these projects 9 were selected, they were identified through the 10 Company's DIMP model, used the data available. When 11 the data was produced, he and his team used their 12 professional judgment of the engineering and operations 13 team, and they determined these projects were necessary 14 and prudent infrastructure replacement projects to 15 ensure a safe and reliable system. 16 Now, it's disappointing that Advocacy Staff is 17 taking the position -- the philosophical position that 18 the only reasonable and prudent replacement project is 19 one that occurs after a leak. Or alternatively, that, 20 Mr. Darras, because you can't tell us what year that 21 pipe was then you failed to meet your burden of proving 22 certainty that the project is necessary. 23 The reality is the only reason these projects 24 were called out is because the Company has put forth 25 the SSIP program to move forward in a proactive
Page 935 1 explosion or a catastrophic event to address a problem. 2 This problem needs to be addressed. And this, what 3 we're proposing, we believe is the best way. 4 Montana-Dakota is here in front of you today 5 because the continued reactive approach to this problem 6 cannot work -- we can't continue down that road. We 7 need to all work together to solve this. And you as 8 the Public Service Commission are in the best position 9 to address these concerns and implement these plans. 10 This is not a legislative issue that needs to be done. 11 The expertise that you have to implement this is 12 appropriate, and the time to do that is now. And we 13 urge the adoption of the SSIP and the corresponding 14 recovery mechanism in this case. 15 I now want to move outside of the SSIP. And 16 it's gotten confused, but the 2018 projects that Mr. 17 Darras testified are moving forward. The Company 18 included this year and plans to do \$5.6 million and 19 include that in rate base. What needs to be perfectly 20 clear is 4.8 million of that is for steel -- low 21 pressure steel pipe replacement. There's an \$800,000 22 component for those -- to replace the three -- early 23 vintage plastic pipe towns in those, and a smaller 24 component of that that is the testing. Those projects 25 in Taylor, Fairview, Gladstone, New Salem, Eldridge	Page 937 1 approach. With all due respect to Mr. Pavlovic, his 2 degrees are in philosophy. He's not an engineer. He's 3 never worked for and operated a regulated gas utility. 4 We can not be in a position where he sits and claims 5 he's better to determine the reasonable and necessary 6 and prudence of the replacement projects more so than 7 the management and operation engineering team of 8 Montana-Dakota. 9 Contrary to what Mr. Pavlovic testified to, the 10 legal standard for determining whether a replacement 11 project is reasonable and prudent is not whether there 12 was a leak or not. That's not the legal standard in 13 North Dakota, or really anywhere else that I'm aware of 14 in the country. The days when it was reasonable to 15 wait for a leak to react to a problem need to come to 16 an end. The industry has recognized that that's not a 17 prudent practice. We need to take a proactive 18 approach. And the issue of leaks determining whether a 19 project is prudent or necessary, as PHMSA and Mr. 20 Darras, and more importantly Mr. Fahn pointed out, 21 that's only one of multiple factors that must be 22 considered in every situation. 23 The North Dakota Supreme Court has repeatedly 24 held in North Dakota rate cases that the Commission is 25 not the manager of the Company and should not

Transcript of Proceedings Volume 3

6/1/2018

Page 79 (938 - 941)

Page 938 1 substitute its judgment for the directors of the 2 Company when it comes to those operational decisions. 3 I want to now -- those are the two big issues. 4 I'll briefly go through just a couple of the other 5 issues. The largest amount of dispute with respect to 6 dollars is the employee compensation system. Advocacy 7 Staff is taking an arbitrary 60 percent disallowance of 8 all expenses that go to Montana-Dakota's employees. 9 From the lowest level customer service all the way to 10 the president and CEO. 11 Montana-Dakota, as the testimony represented, 12 has been utilizing a system, the total rewards 13 philosophy system, for over 20 years as a reasonable 14 basis for determining incentive compensation for 15 attracting and retaining a highly qualified work force. 16 Moreover, every single witness that testified on this 17 agreed that this is a recognized practice within the 18 industry. This isn't something unique and new to 19 Montana-Dakota. This, again, is a situation where 20 Montana-Dakota and their human resources department are 21 in the best position to address these concerns. 22 The return on equity, I won't spend much time 23 on it. The results you've heard from all three 24 witnesses are so subjective to that. Montana-Dakota, 25 with this application, has requested that a 10.0 ROE is	Page 940 1 the Company proposes using a 2.2 percent inflation rate 2 that we believe is reasonable. And more importantly, 3 what needs to be considered here, this case is based on 4 a future test year. This was filed in July of 2017. 5 We did not know that. But the law is not that we must 6 come back and prove these. That would do away with the 7 whole point of a future test year. That's not the law. 8 Those are the projections, and they're appropriate and 9 reasonable at 2.2 percent. 10 The issue with the Company airplane. Ms. 11 Kivitso testified it's not used for travel in North 12 Dakota. It's reasonable and prudent. The examination 13 of it takes place by her and only when it makes 14 financial sense for the Company in support of their 15 operations. 16 Finally, with the rate design, AARP -- the 17 Company proposes continuing the fixed rate charge, the 18 straight fixed variable. We believe it's the most 19 equitable system because the cost to serve every 20 customer is the same. Staff did not object to that. 21 The Federal Executive Agency's witness supports that. 22 It avoids bill fluctuations in cold weather months. 23 It's easy for customers to understand. It provides a 24 consistent source of -- of consistent revenue to the 25 Company. There's no justification for the Commission
Page 939 1 within the realm of reason and purported to do that. 2 Certainly we've presented and all the witnesses have 3 seen the comparison that Montana-Dakota's gas 4 operations have to the proxy companies, what the rates 5 of return for the proxy companies, and in order to 6 maintain a -- or a strong, competent business, we need 7 a corresponding rate of return. As you know currently, 8 the system is -- or currently the ROE, authorized ROE, 9 is 9.50 for the Company. 10 Advocacy Staff and the Federal Executive 11 Agencies are proposing something below that. The 12 evidence certainly does not show that Montana-Dakota's 13 risks are less than the average. They've shown that 14 the average ROE across the country for the last year is 15 roughly 9.61 percent, and I think the evidence shows 16 that if not average, Montana-Dakota's risk might be 17 slightly below average which would support a higher ROE 18 than that. 19 Quickly, with respect to inflation, Ms. Kivitso 20 in her testimony had indicated that three percent was 21 the normal operating. The Company proposed a 2.2 22 percent inflation rate based on the average of six 23 market -- published market sources. These are for a 24 small group of operating expenses where it would be 25 very difficult to come up with every single thing. So	Page 941 1 to revert back to earlier standards. 2 I do want to address one evidentiary issue, and 3 I can take partial blame for that. But I do take 4 exception to the -- you know, the assertions that 5 somehow the Company is hiding evidence or wasn't 6 responding to. We must recall how this played out. We 7 filed our evidence in direct testimony. They -- Staff 8 and the Intervenor filed their rebuttal. Because of 9 the Tax Act, things got pushed back. We filed our 10 response to that and addressed those concerns. Now, 11 normally we would have the last word. But in this 12 case, Advocacy Staff and the Intervenor got to file 13 surrebuttal testimony. That was filed on May 3, 2018, 14 less than 30 days ago, where they made new criticisms 15 of this. And should I have recognized -- Ms. Kivitso 16 was clearly going to testify when it became an issue. 17 Should I have identified that earlier and got that? 18 Certainly. But I just only raise that as -- that's my 19 fault. But to -- you saw the binders, the thousands 20 and thousands of pages that were produced. To somehow 21 assert that the Company is hiding, I just don't want 22 that implication left with the Commission. And I don't 23 think we heard any witness indicate that we failed to 24 respond to any data requests. 25 Montana-Dakota respectfully requests that this

Transcript of Proceedings Volume 3

6/1/2018

Page 80 (942 - 945)

Page 942	Page 944
1 Commission grant its application for an increase in 2 natural gas rates. With that, we certainly urge the 3 Commission that the time is now for the SSIP program. 4 And let's all work together to find a solution to this 5 problem. 6 On behalf of the Company, thank you for your 7 time here over the course of three days. Clearly, the 8 pointed questions and the time that you have put into 9 this is appreciated by the Company and certainly makes 10 this a more effective process. We would also like to 11 thank Advocacy Staff and their witnesses and the 12 Intervenors and their witnesses for doing this. As Ms. 13 Kivitsos said, in every case her concern is the rate 14 payers, the employees and the shareholders. And all 15 those considerations must be taken care of. And the 16 balancing act that you must perform. But we thank you, 17 we thank the parties for the opportunity to present 18 this case to you. Thank you. 19 THE COURT: Mr. Armstrong? 20 MR. ARMSTRONG: Thank you, Judge. Mr. 21 Sanderson's closing was obviously about let's work 22 together. I hadn't really thought about a theme for 23 mine until I was listening to his, and I think that 24 theme would be history is the best predictor of the 25 future. The Company has shown over its history that	1 The SSIP program is not about safety. The SSIP program 2 is about recovery. Recovery of the shareholders of the 3 money sooner, making the rate payers investors in the 4 Company, not customers. It's about an inflated 5 recovery every year. And it's not going to delay rate 6 cases a lot. It may delay them a year. That just 7 means it's one more year of information to go through, 8 one more year of additional information. This isn't a 9 cost-saving rate payer issue. 10 This SSIP, the first time we had the plan was 11 January 2018. They'd asked you to approve it even 12 before then. We had filed our direct testimony before 13 then. It's not anything near concrete. And when you 14 say, let's work together, I don't recall anybody saying 15 anybody other than MDU has been involved in the plan. 16 I hear them saying, you can't manage our business, but 17 then they want to bring you in to apparently manage 18 this part of the business. I'm confused. 19 So I don't think any of the evidence has shown 20 that there is a safety concern that needs to be 21 accelerated now by putting an inflated return on to the 22 rate payer in the short term. If they want to go ahead 23 with their routine repair and replacement and that gets 24 evaluated in the normal way, or if there's 25 justification for the projects that they're doing?
Page 943	Page 945
1 it's operated a safe system. The Company has shown 2 over its history that it can be a stable Company 3 without accelerated replacement with a rate of return 4 for its shareholders. 5 This isn't about the Company being safer, this 6 SSIP. This is about the Company and its shareholders 7 recovering the money for those projects every year on 8 an inflated return without the scrutiny that you've 9 seen over a project the last three days. 10 Also, why is history the best indicator of the 11 future? You've heard and seen how Advocacy Staff at 12 least has viewed this SSIP as kind of a moving target 13 going along. Granted, the Company agrees that it's a 14 fluid project. But if we can't get the information to 15 support or not support things such as airplane flights, 16 incentive compensation and other matters, how are we 17 going to get the information between March and October 18 of every year to approve or not approve millions of 19 dollars of projects? History is the best indication of 20 the future. 21 And Staff is not anti-safety. Nobody is 22 anti-safety. You've heard lots of examples of gas 23 incidents, problems with gas. You haven't heard one 24 example of an incident that they say would have been 25 solved by this SSIP program. They're all different.	1 Great. Those projects have been approved in the past, 2 and I don't anticipate if they're prudent they will not 3 be approved in the future. But to institute this 4 mechanism -- and granted they're telling you 39 states 5 have done it because they want to say, oh, these states 6 are all promoting safety and if you don't, you won't 7 be, with no evidence that those states have resulted in 8 safer pipelines in any of those jurisdictions. I 9 haven't heard any evidence or seen any evidence of 10 that. Montana doesn't have it. South Dakota doesn't 11 have it. This region doesn't really have it. I 12 suggest to you there's a reason for that. They've been 13 operating a safe system. They will continue to do so. 14 I kind of view the program as if I buy a house 15 that was built in the lead paint era. I don't buy that 16 house and go in and tear out all the walls because it 17 might have lead paint. I first check if there's lead 18 paint. That's what the Company should be doing. Not 19 doing the study while they're replacing all the 20 pipelines. Figure out if there's a problem first and 21 then figure out how to address it. This is putting the 22 cart and the horse together. It's just not putting the 23 cart before the house, it's all in one. And you know 24 what they're doing, Commissioners, they're plowing 25 forward with it in an attempt to force you to have to

Page 946 1 approve it. They're already going forward with it. 2 And they have not justified it as a prudent 3 expenditure. They're telling you 39 states have done 4 it, they're telling you we're going to do it anyway, 5 and they're saying because of that you have to approve 6 it. 7 I would ask you to review it. I would ask you 8 to -- I mean, I know you'll read our briefs and you'll 9 read our testimony, but our positions aren't as they've 10 been reflected to be. We want it to be prudent. And 11 we don't want the rate payers to pay for things that 12 aren't prudent. And we don't want the rate payers to 13 pay for things that the shareholder should have to pay 14 for. And we don't want the rate payers to be investors 15 in the Company. And we don't want the rate payers to 16 have to pay for the old pipe that's coming out of the 17 ground that might still be okay while also at the same 18 time paying for the new pipe they're just putting in to 19 replace the good type. 20 So this plan is too accelerated, it wasn't a 21 part of working together with anyone, and we ask that 22 it be rejected. And we think it is very important. 23 What brought more attention to it is certainly the 24 recovery mechanism. That is a fundamental change in 25 the way rate making has worked in North Dakota. Every	Page 948 1 at the end of the day that they're asking shareholders 2 to be responsible -- or rate payers to be responsible 3 for every bit of incentive compensation. Now, mind 4 you, that's six percent of total compensation. So 94 5 percent the rate payers are already on top of, plus 6 another 40 percent. We just say they shouldn't have to 7 pay for part of the compensation that is to increase 8 the shareholders' earnings. I think that makes sense. 9 But I guess that's up to the Commission. 10 The second issue, you know, we've got the 11 private aircraft, we've got the vehicles and work, 12 we've got all of those issues, and the inflation, I 13 think the Commission's heard all of that numerous 14 times, so I'm not going to go into it much more. 15 But I would like to talk about the housing. 16 This is a prime example. This housing was purchased in 17 the early 2010s. It wasn't added to rate base or base 18 rates or anything at that time, which is appropriate. 19 Gains typically aren't passed along to the rate payers. 20 But when they sell this housing at a substantial loss, 21 let's put it in the base rates and let's make it a rate 22 payer issue. That's -- it should have -- it should 23 have been put in, in the rate case before as part of 24 that. It should have been put in after. It wasn't 25 until they had a loss, a big loss, that they decided
Page 947 1 year they'll file something. We're supposed to rush to 2 review it, figure out if it's prudent, hopefully 3 they're being transparent, and then make a decision, 4 and this is a rider that carries forward. If it was 5 all about safety, why is there a return on the rider? 6 Why can't the return come in at the next rate case? 7 This isn't all about safety. This is about shifting 8 risk on to customers. 9 I think I've covered most of the SSIP comments 10 I want to make in closing. But that's not the only 11 thing in this case. In addition to that, they're 12 adding numerous expenses, millions and millions of 13 dollars that should not be approved, and they're asking 14 for that, again, at an inflated return. This hearing 15 is like a wish list. If the MDU shareholders showed up 16 and wrote a list of all the great things they'd want, 17 this is what it is. I mean, they want everything to be 18 the rate payers' responsibility, all the risk, all the 19 payment, everything. 20 I'm not going to go through all the issues. I 21 will talk about incentive compensation briefly. The 22 number is a projected number. Part of incentive 23 compensation clearly benefits shareholders. They've 24 made efforts to try and show that shareholders are 25 responsible for some of that. But it came out at least	Page 949 1 maybe this should go to the rate payers. If that 2 doesn't reflect anything, I don't know what else does. 3 I mean, everything is being pushed on the rate payers, 4 even things that clearly should not be. 5 And then they want a ten percent return on it. 6 I think we've talked a lot about the returns, so I 7 think the evidence on the return is clear that a range 8 of reasonableness is 9.2 to 9.5. Staff believes in 9 that range it should be on the lower end. I think 10 you've heard the testimony to evaluate what's fair. 11 Again, MDU's main argument there seems to be other 12 Commissions are awarding higher ones so you have to 13 award ours, you can't consider the fact that we're a 14 stable -- it's just follow the evidence. They're a 15 healthy company, they're getting almost all their costs 16 recovered, and now they want even a greater rate of 17 return, and they want that accelerated now to every 18 year on major projects. 19 Like I said in my beginning of this case, we 20 think it's quite simply too much. Thank you. 21 THE COURT: Major. 22 MAJOR UNSICKER: Thank you, sir. As 23 stated in this case, FEA agrees with MDU's cost of 24 service study. So my focus of this is really on the 25 return on equity, which I think Mr. Armstrong hit on a

Transcript of Proceedings Volume 3

6/1/2018

Page 82 (950 - 953)

Page 950 1 lot of my points, so I'll be brief. 2 MDU's request for a 10 percent ROE is not 3 appropriate in this case. You heard from Dr. Griffing, 4 you also heard from Mr. Gorman that somewhere in the 5 range of 9.3 would be a more appropriate return on 6 equity for MDU. Now, you heard Mr. Gorman say that 7 there is a robust utility outlook, and utilities are 8 still a good investment choice. And MDU in this case 9 is no exception to that. What we did hear was from 10 MDU, the Company's witness, Dr. Gaske, where he 11 assigned some risk to MDU which increased that return 12 on equity. 13 As you heard from Mr. Gorman, an accurate look 14 at risk is to look at the market at an independent 15 factor to come up with that. And when you look at 16 that, you see that MDU has a median bond rating, and 17 that the proxy groups that Mr. Gorman and Dr. Griffing 18 used were consistent with MDU, those other utilities. 19 In reducing the ROE to 9.5 percent, just that 20 alone corrects a revenue deficiency of \$555,000 in this 21 case. So based on those reasons, FEA would just ask 22 this Commission to consider those factors when 23 assigning an ROE to this case and come in somewhere in 24 that range of 9.3. 25 And, again, thank you for letting us appear. I	Page 952 1 decision making when it comes to public safety. And we 2 can not continue to kick the can down the road and let 3 a future generation all of a sudden deal with, instead 4 of pipe that's 50 years old, pipe that's 70 years old. 5 This is an issue that only continues to get worse every 6 day. And all we're asking is a system to work 7 together. 8 And they're objecting to a system, a recovery 9 system, that not one dollar can be recovered unless you 10 approve it. And they don't like that. That's not a 11 basis for this. The SSIP program makes sense. It's 12 why the industry is pushing this. NARUC, the 13 Department of Energy, PHMSA, the utilities. There's 14 information out there. Other states are doing it. 15 Other utilities. Let's work together and come up with 16 a solution together. And that is the goal here, and 17 that's why this makes sense. And that is why this 18 needs to be done now. 19 And we urge you, now is the time. We're open 20 to the suggestions of the Commission. We're open to 21 work with Staff to resolve their concerns. And they 22 have legitimate concerns. But not ones that should 23 prevent these projects from moving forward. The 24 Company is taking a proactive approach, and it's just 25 shocking that -- we've never challenged one of your
Page 951 1 appreciate that hospitality. And thank you. 2 THE COURT: Ms. Jeffcoat-Sacco? 3 MS. JEFFCOAT-SACCO: I have nothing. 4 Thank you. 5 THE COURT: Okay. Mr. Sanderson, any 6 rebuttal? 7 MR. SANDERSON: Yeah, just very briefly. 8 Members of the Commission, we live in a time of 9 divisive politics where attempting to pit class warfare 10 against each other is the norm in politics. That can't 11 be the reason for decisions to be made on public 12 safety. This tired argument that somehow this is a 13 program created by Montana-Dakota so its shareholders 14 could put more money in their pocket, that's absurd. 15 I'll go as far to say that's absurd. 16 Thirty-nine other states. We're behind the 17 curb. We didn't create this. But we live in a time 18 where these are real issues. But to somehow assert 19 that because -- we're only doing this to benefit 20 shareholders couldn't be further from the truth. You 21 heard Pat Darras testify what keeps him up at night 22 isn't, boy, how am I going to recover the Cleveland 23 project. It's we're sitting on low gas pressure 24 systems that need to be taken care of for public 25 safety. The divisive politics cannot play a role in	Page 953 1 problems when you just sat and reacted to these issues 2 in the past decades, but the second you want to come 3 forward and try to look at an industry-wide problem of 4 aging infrastructure, now we don't want you to recover 5 one penny of these 2018 projects. 6 This is an appropriate program. It's one that 7 we're looking to work with the Commission and take a 8 lead on that you will have the final say on each and 9 every dollar that goes through this program. It 10 couldn't be more transparent. And it is -- now is the 11 time. 12 With that, once again, thank you. And we 13 appreciate the time and effort the Commission has put 14 forward. 15 THE COURT: Okay. Closing comments from 16 the Commissioners. Commissioner Kroshus. 17 COMMISSIONER KROSHUS: Well, first of all, 18 thank you everyone for being here and for your time. 19 Major Unsicker, thank you for your service. 20 Everyone agrees that safety is always 21 incredibly important, and this Commission is no 22 different. I do believe we need to have a sense of 23 direction. We need to base it on fact. We need to 24 base it on knowledge. And I think that's very 25 important. And I do appreciate the fact that the

Transcript of Proceedings Volume 3

6/1/2018

Page 83 (954 - 957)

Page 954	Page 956
1 Company has continued throughout the years to make 2 ongoing investments related to safety and replacing 3 components of the system. That is greatly appreciated, 4 and I think it's very important. 5 For us as a Commission, it's really about 6 creating a balance and balancing consumer interests, 7 including safety, including cost, with also ensuring 8 that the Company remains healthy, because the Company 9 is a North Dakota-based company, and that component is 10 important as well. But we have an Advocacy Staff 11 representing consumer, we have, of course, Company 12 representatives, we have Intervenor who have appeared. 13 But the one group that's not immediately present in 14 this room are the consumers, the rate payers. So 15 that's our job to make sure we're looking out for their 16 best interests. 17 There are a number of other considerations. We 18 talked at length about the SSIP program. And again, 19 we're all in agreement, I'm quite certain, on the 20 safety aspect. But really it's more about how do we 21 get there, and how do we get there in a prudent and 22 reasonable fashion. And that's something I'll 23 personally be taking a very hard look at. 24 MDU has and continues to be a very good 25 company, and I think that needs to be recognized. So	1 decision that is possible based on the evidence that's 2 been presented. So thank you. 3 THE COURT: Commissioner Fedorchak. 4 COMMISSIONER FEDORCHAK: Well, I sure 5 appreciate everybody's time, your intellect, your 6 attention to the details, and also your passion and 7 persistence in making it through three days of 8 hearings, and everybody's still pretty engaged. I 9 haven't seen a lot of even cell phone use, so that's 10 cool. 11 I think we have more than enough information on 12 which to base a decision. In fact, I could probably go 13 back to my office and spend a couple hours and make a 14 decision myself based on what's been provided, what 15 I've looked at ahead of time, and what we have in the 16 record from the last three days. 17 Some of the places I would land, Advocacy 18 wouldn't like, and some of the places I'd land, the 19 Company wouldn't like. So I think that it comes down 20 to you all have heard the questions we've asked, you 21 probably have a sense of where we are on a lot of these 22 issues. And so I would urge you all to see if there 23 isn't some of these decisions that you can get together 24 on and come to conclusion on, the parties together. 25 You know, there -- I think you could check a
Page 955	Page 957
1 with that, I said I would be brief. And again, thank 2 you everyone. I hope we can move quickly toward a 3 decision on this, but we also want to make sure we get 4 it right. 5 And you know, the one thing this constantly 6 reminds me is as we've gone back and forth and there 7 have been some contentious moments is still that this 8 is a pretty good place in the world to live. It really 9 is. Because my guess is we're not going to kill each 10 other in the elevators on the way down. So at least I 11 hope not. So I'm taking the stairs. And it will 12 probably be faster anyway. 13 No seriously, thank you everyone. I really 14 appreciate your time. 15 THE COURT: Commissioner Christmann. 16 CHAIRMAN CHRISTMANN: Well, Your Honor, 17 I'm going to take the uncharacteristic approach of not 18 speaking my mind on all the things that are coming to 19 mind right now. I will just say I appreciate 20 everyone's efforts in bringing us a lot of important 21 information. And I can just assure everyone here and 22 everyone listening that knowing this Commission as I 23 do, there's going to be a thorough, careful, thoughtful 24 analysis of all the information that has been presented 25 to us. And we're going to come up with the best	1 few of them off and say even through the course of the 2 last couple of days there's been some coming together 3 on some of these issues. 4 So in terms of the safety, I've spent in my 5 time on the Commission probably a disproportionate 6 amount of my time on pipeline issues in general. And 7 my involvement on NARUC, GTI, a number of 8 these different organizations, I've sat through a lot 9 of briefings on safety issues. And so I am very 10 interested in those issues and sensitive to them, 11 because I also feel that most of the people running 12 around in our communities don't give one bit of heed to 13 the underground infrastructure that they're living in 14 nor the dangers that it represents. So they count on 15 us to deal with that and assume that it's being taken 16 care of and that they don't need to worry about it. So 17 we have to do that. 18 I believe that the Company has done a great job 19 on safety and will continue to do that. But every year 20 goes by, we have more information, better information, 21 and we need to figure out how to use that appropriately 22 moving forward. And so I really appreciate Advocacy 23 Staff's bringing forward of some of the problems and 24 challenges of the proposal put forward by the Company. 25 It does need to be improved. But we do have to find a

Transcript of Proceedings Volume 3

6/1/2018

Page 84 (958 - 961)

Page 958 1 way forward on that issue. And we need to do it now in 2 this rate case. 3 So I look forward to hopefully some additional 4 work being done that and brought forward to us. And if 5 not, then the three of us will do it. So thank you 6 very much. Appreciate everyone's time, and hope 7 everyone has a great weekend. 8 THE COURT: Couple of housekeeping 9 matters. Counsel, will there be any late-filed 10 exhibits now? 11 MR. SANDERSON: Yeah, just the Exhibit 51, 12 I believe, the request for the NSF check information 13 that we identified as MDU-51. 14 THE COURT: Okay. And my understanding -- 15 Mr. Armstrong; is that correct? 16 MR. ARMSTRONG: Oh, yes, that's correct. 17 THE COURT: Okay. And my understanding is 18 that counsel has agreed to a briefing schedule. MDU's 19 briefs will be due June 22nd. 20 MR. SANDERSON: Yes, Your Honor. 21 THE COURT: And that late-filed exhibit 22 will be filed before then? 23 MR. SANDERSON: I certainly don't 24 anticipate we'd have any problem -- long before then we 25 anticipate.	Page 960 1 throughout the presentation and the hearing, it's too 2 bad some young law students couldn't sit and see a 3 proceeding like this to see the experts testify, see 4 the Cross-Examination, see the preparation that goes 5 into something like this, because behind the scenes 6 there's been a lot more done than what we saw in the 7 last three days, and it's been a lot of work the last 8 three days. Everybody kept it on task. We have three 9 great Commissioners. We're very fortunate here in 10 North Dakota to have the environment that we have. And 11 so I want to just thank everybody for a great 12 presentation. We got it done almost right on the 13 button at 5:00 on Friday, which is pretty amazing when 14 you consider how many witnesses have been here to 15 testify and the amount of information that's been 16 provided. I learned a lot. And I want to thank you 17 for that. 18 And so I'm just about ready to close the 19 record. Do you have something else I need? 20 MS. JEFFCOAT-SACCO: Oh, just the proposed 21 findings. Are they coming in with the briefs? 22 THE COURT: Yeah, so the proposed findings 23 -- 24 MR. ARMSTRONG: I only have one, so it's 25 the --
Page 959 1 THE COURT: Okay. And July 12th for the 2 Staff and Intervenor's response briefs. 3 MR. ARMSTRONG: Correct. 4 THE COURT: Okay. And July 20th for MDU's 5 reply. 6 MR. SANDERSON: Yes, Your Honor. 7 THE COURT: All right. And then as far as 8 the exhibits, the record that I've got, we have a gap 9 between Exhibit Numbers 31 and 40, and I believe 10 there's a gap at 48 and 49. So what I'll do when I do 11 the exhibit list is I'll just indicate they were not 12 used so we don't have anybody out there wondering when 13 it's docketed what's missing. 14 Finally, a few closing remarks from me not 15 about so much the substance of the presentations today, 16 but -- or the last three days, but the quality. It's a 17 real -- I want to thank the court reporter, first of 18 all, because she's got the hardest job maybe in the 19 room. I want to thank the attorneys because you guys 20 did a fantastic job. You guys were really well 21 prepared, and you really did a great job. You have the 22 right to relax a little bit this weekend. And the 23 Company witnesses were well prepared, knowledgeable, 24 excellent. The experts were all interesting and good. 25 Frankly, I was thinking to myself several times	Page 961 1 MR. SANDERSON: I'll do mine on my reply 2 then. 3 THE COURT: With the reply. 4 All right. So all that being said, thanks 5 again. Anything else for the good of the record? 6 MR. ARMSTRONG: No, Your Honor. 7 MR. SANDERSON: No, Your Honor. 8 THE COURT: Okay. 9 MAJOR UNSICKER: No, Your Honor. 10 THE COURT: All right. Then I'm going to 11 close the hearing on PU-17-295 and subject to the 12 filing of late-filed exhibits and the briefs. Thank 13 you very much. 14 15 (The hearing was concluded at 5:02 p.m.) 16 17 18 19 20 21 22 23 24 25

Transcript of Proceedings Volume 3
6/1/2018

Page 85 (962 - 962)

Page 962

REPORTER'S CERTIFICATE

I, Christa A. Reeser, a Registered Professional
Reporter, Certified Realtime Reporter, and Certified
Realtime Captioner, do hereby certify that the
foregoing pages of typewritten material constitutes an
accurate verbatim stenographic record taken by me of
the proceedings aforementioned before Patrick J. Ward,
Esq., Administrative Law Judge, on the 1st day of June,
2018, at the times and place specified.

DATED: July 9, 2018

Christa A. Reeser

Christa A. Reeser
Registered Professional Reporter
Certified Realtime Reporter
Certified Realtime Captioner
Notary Public, Cass County

WORD INDEX

< \$ >

\$1,000 820:4, 5, 18
\$1,004 820:11, 13
\$1,200 861:1
\$1.3 882:10
\$10 786:19
\$100,000 831:4
\$106 881:9, 13 884:13
\$106,000 771:6
\$110 882:15
\$112,136,630 783:10
\$12,949 748:7, 7
\$134,000 751:17, 25
\$14,000 754:9
\$143 772:8
\$168 924:21
\$178,000 751:20
\$2.2 882:5
\$2.3 814:24 815:5, 8,
 18 818:12, 20 819:18
 825:15 881:20, 24
 882:17 883:16 885:5
\$2.6 788:9
\$2.7 788:7
\$2.8 788:9 789:1
\$21,000 746:25
\$24,000 747:2
\$250,000 761:21
\$3 750:22 814:1 882:6
\$3.2 816:13
\$3.3 787:19
\$3.6 816:19
\$34,000 774:20
\$38,488 747:9
\$4 820:10, 24
\$4.4 750:20
\$40 799:18 877:7
\$43,000 751:21
\$5 750:19 786:19
 787:19 882:9
\$5.4 789:9
\$5.6 766:24 935:18
\$5.9 814:18 816:22
\$555,000 950:20
\$6,844 775:5
\$785,000 750:24
\$800,000 823:13 921:1
 935:21
\$867,496 783:5 815:25

< 0 >

0.3 744:7
04 897:11
0504.1 773:8

< 1 >

1.329 741:9, 21
1.4 750:21, 21
1.5 641:6
1.9 654:15
1:00 797:6, 10
10 639:2, 5 640:10
 702:17, 18, 20 707:15
 720:14, 16 726:24
 742:9 950:2
10.0 709:1 938:25
100 655:7 657:13
 716:2 763:1 784:5
 785:12 787:11 866:25
 919:25 929:8
109,986,334 884:17
109.9 884:16
10Ks 736:8
11 647:21 648:2 673:7
 694:16 704:21 705:8
 710:14, 15 711:15
 726:18, 22 727:24, 24
 757:25
11.5 704:23, 24 705:1, 5
11.88 710:1
110 884:14, 18
1100 628:7
112 884:24
112,274,143 884:25
112.3 882:17
12 631:5 667:18 677:6
 694:16 699:5 703:25
 705:4 720:10, 12, 14, 16
 722:12 726:18, 22
 733:22 734:13, 15
 757:9 773:2 782:11
 846:20
12.54 708:9, 12
12:19 797:7
12:20 797:5
122 628:18
126 751:16
12th 959:1
13 631:18 708:25
 894:20 904:23
136 751:16
139 630:17
13th 695:18
14 632:5 699:6 700:11
 719:14, 15 726:24
 727:11 860:14 894:23
 905:2
140 820:23, 24, 25
1409 835:14
15 632:14 634:1 699:5,
 6 709:4 719:14, 15
 799:18 844:13 860:14

875:5 893:23 902:3
 919:25 928:25
15th 695:17
16 633:2 859:20
 860:14 875:4 887:17
 893:1 905:13 919:25
160 753:16
16690 636:11
168 924:17, 25 925:1, 4
1695 627:17
17 633:9 637:4 772:7
 849:10, 18 857:24
 860:14 861:4 875:24
 887:17 905:14 919:25
 920:7
170,000 774:4
18 633:19 637:4 797:1
 857:25 886:10, 24
 902:3, 19
18th 666:3, 4 707:3
19 633:22 718:4, 5
 861:4 863:20 873:5, 5
 902:22 907:23
1916 929:9
192 836:23 838:12
1939 912:19
1970 911:20 912:1
1980 828:7 829:16
 911:21
1990 638:4
1st 635:4 695:13
 718:9 962:10

< 2 >

2.1 654:15
2.2 755:20 771:25
 772:4, 9, 11 773:2
 782:7, 19 825:14, 22
 826:8 847:5 857:18
 939:21 940:1, 9
2.22 746:5
2.3 816:15 818:9
 825:22 826:8 884:2
2.5 700:21
2.6 789:2
2.68 696:4
2.7 767:6 788:3
2.8 700:17, 20
2.9 700:18, 20
2:44 880:4
2:55 880:6
20 707:18 756:2 795:2
 843:12 938:13
200 934:16
2003 897:11 906:2
2004 691:19
2006 648:18
2008 668:1
2010 758:2 827:2
2010s 948:17
2011 680:7, 21 682:1
 689:13, 19 732:3, 15
 737:10 750:18 838:9
 889:7 926:12 930:12
2012 827:3
2013 750:19 759:3
 827:3, 9
2014 781:25 807:14
 808:7
2015 647:8 781:25
 801:15 808:7 827:9
 876:1 887:17 905:13
 907:4 936:3
2016 709:7, 9 746:20
 750:23 751:8, 20
 781:25 795:19 808:7
 859:18 864:1, 3 894:17
 904:20 906:8 907:7
 916:23 926:14, 18
 936:3
2017 626:6 637:4
 648:5, 18 650:12
 654:11 689:23 709:11,
 17 732:16, 17, 22 733:1
 746:20, 24 747:2
 767:16, 23 772:23, 24,
 25 773:25 774:1, 11
 782:11, 13 783:11
 788:14 789:13 790:16,
 19, 22 795:19, 19
 796:25 808:7 810:7, 15
 815:7, 16 816:3, 17, 20
 820:1, 2, 3, 7, 7, 14
 832:9 850:5, 6 851:18,
 23 855:8 860:7, 12
 861:7 864:1, 7, 18
 865:5, 20 867:12
 874:14, 16 875:25
 880:17 883:11 890:24
 891:8, 8 892:5 894:22
 898:20 901:11 903:1
 905:2 907:9 922:5
 926:11, 16, 21, 24 936:3
 940:4
2018 626:16 627:2
 635:1 637:4 743:22
 745:19 746:21, 24
 747:3 751:9 755:8
 759:14 760:9 765:24,
 25 766:8, 17 767:11, 17,
 21, 25 772:1, 25, 25
 773:23 774:11 782:9
 787:15, 24 788:2, 15
 789:4, 13 790:13, 20
 791:2, 22, 24 792:18, 24

795:7, 11, 19 796:24
810:10 818:17 820:7,
13, 16 822:13, 24
823:14 825:19 826:8,
19 827:25 888:21
890:25 891:5, 8, 10, 12,
17, 23 892:5, 6, 15
893:5, 12, 23 894:2, 10
899:6, 10, 14 900:23
901:1, 4, 9 902:8, 16, 17,
22, 24 904:13 921:1
922:16 926:25 935:16
936:4 941:13 944:11
953:5 962:11, 14
2018, 902:4
2019 791:22, 23 801:24
2022 791:23 900:23
20th 682:1 959:4
21 692:2 727:11 728:9
773:18 818:17 820:16
210 820:18
218 753:25
219 753:25
22 691:10 695:19
718:4, 5 788:5
22nd 693:7 695:7
707:6 958:19
23 691:11
24 692:5, 5 723:5
851:24 867:3 906:13
2-46 749:23
25 644:10 645:9 692:5
800:6 929:6
252 780:13 791:15
793:7
25th 734:16
26 723:5
27 650:5 699:5 905:19
28 641:22 905:19
29 637:5 641:22, 25
2nd 838:9

< 3 >
3.02 696:4
3.04 708:8 730:6, 6
3.6 728:15 730:8
3.60 697:17
3.7 730:8
3.8 730:8
30 637:6, 23 641:25, 25
664:14 669:5 697:25
763:6, 6, 8 810:3
941:14
30-year 700:13 701:7,
9, 11, 16 703:17
31 905:5 959:9
31st 718:9 767:19

32 666:19
32403 630:18
35 818:16 820:4
825:19 828:20, 25
829:11, 18 925:13, 17
350 820:4, 17
39 917:12 932:17
933:5 934:6 945:4
946:3
3rd 816:10

< 4 >
4.8 894:1 935:20
4:00 768:17
4:05 928:12
4:10 927:20 928:8, 14
40 654:9 742:13 756:6,
15 810:3 948:6 959:9
400 769:20
408 629:6, 16
41 904:25
43,000 774:6
45 742:8, 8 775:10
781:8 894:22 905:19
46 749:16, 18, 19, 22
750:1, 9
47 805:10 806:14
48 849:11, 14 886:3
959:10
49 910:11 959:10
4th 692:24 902:17

< 5 >
5,000 786:19
5.4 789:2
5.567 884:10
5.6 767:5 936:5
5:00 960:13
5:02 961:15
50 668:19 682:12
731:17 742:5, 5 749:16
752:2 756:25, 25
757:11, 15 774:13, 16
784:3, 4, 19, 21 785:13,
14, 15 786:18 788:12
810:4, 16 829:13, 16, 16,
17 848:13 923:24
929:7 952:4
500 703:3 708:4, 12
769:6
50-50 752:2, 12
50th 734:16
51 749:11 750:17
958:11
5130 858:12, 15, 17
859:9
5131 858:13 860:5, 6,

13
52 867:4
54 894:17 904:23
573-424-6779 630:9
58 683:11
58501 628:8
58502 627:18
58503 628:19
58505-0480 629:7, 17

< 6 >
6.25 700:24
60 738:22 742:10
743:23 755:22 756:3, 5,
12, 22 757:20, 25
758:13, 23 786:1
923:24 938:7
600 627:4 629:6, 16
835:17
60-40 742:3
626 626:15
63119-2044 630:8
636 631:6
642 631:7
655 631:8
66 649:8 677:4 678:25
663 631:9
665 631:10
667 631:11
672 631:12
675 631:13
687 631:14
689 631:15
69-04 773:8
691 631:19
6th 695:13

< 7 >
7.29 695:2
7.45 700:23
70 738:23 912:8, 8
914:21 923:3 952:4
700,000 864:2
701-223-2711 627:19
701-258-0630 628:20
701-328-2400 629:18
701-328-2421 629:8
701-751-1243 628:9
705 631:20
71 910:21 914:21
7100 887:9
712 631:21
713 631:22
715 631:23
720 631:24
721 631:25
726 632:1

731 632:2
737 632:3
740 632:6
741,346 864:4
75 644:12 923:3
754 632:7
774 815:25
778 632:8
781 632:9
783 632:10
785,000 814:3
790 632:11
794,431 864:5
796 632:12
798 632:15

< 8 >
8.8 639:11, 24 663:4
694:5
8.9 694:6
8.91 666:13, 18
8:30 626:17 627:3
635:1, 4
80 925:17
800,000 813:19
806 632:16
807 632:17
808 632:18
81 763:7 910:21
811 774:17
812 632:19
818 632:20
825 632:21
827 632:22
833 632:23
835 633:3
843 633:4, 5
844 633:6
846 633:10
850-283-6347 630:19
857 633:11
863 633:12
865 633:13
867 633:14 816:14
867,000 816:10
867,496 741:22
869 633:15
871 630:7
872 633:16
875 633:17
876 633:20
880 633:23
883 633:24
885 634:2
8th 692:25 693:6 707:5

< 9 >

9.1 639:14 640:1 666:17, 21 722:12 736:5 9.2 949:8 9.23 666:15 693:25 694:25 722:13 736:5 745:7 760:25 9.25 707:25 9.3 639:11, 24 663:4 673:24 694:6 704:22 950:5, 24 9.48 710:11 9.5 648:14, 19 649:1 673:13 677:15, 23 695:1 704:22 706:3 708:13 709:9 745:11 760:19, 22, 24 761:2, 4, 6, 13, 20 949:8 950:19 9.50 693:22, 25 707:24 708:5, 7, 16, 17, 18 709:18 939:9 9.59 709:7 9.6 673:23, 24 710:20 9.60 710:18 9.61 648:7 673:9 676:19 678:3 710:9 939:15 9.63 710:22 9.65 675:24 676:4 677:22, 23 9.7 704:21, 23, 25 705:1, 3 710:19, 21 711:12 724:3 725:7, 14 736:2 9.70 711:1 9.75 648:10 9.8 704:22 708:23 711:20 712:8 713:13 9.82 709:15 9.38 690:10 900 634:3 908 634:4 911 634:5 916 634:6 918 634:7 926 634:8 927 634:9 94 948:4 962 626:15 99 784:19 848:13 < A > a.m 626:17 627:3 635:1, 4 690:10 AARP 630:3 644:18 712:24 831:12 834:19 932:19 940:16 AARP's 932:5	ability 644:2, 4 669:12 684:14 able 656:1 681:19 685:6 705:2 714:6, 18 748:12 781:16 808:12 811:16 822:6 849:3 870:9 877:13 886:11 898:4 903:19 914:2, 15 921:8 above-ground 886:19 894:18 absolutely 678:24 810:18 815:21 821:25 absurd 951:14, 15 academics 671:13 accelerated 801:12 802:5 822:1 907:16, 21 943:3 944:21 946:20 949:17 accept 675:25 683:13, 18 686:16 697:16 729:10, 25 acceptable 782:20, 22 accepted 811:20 857:25 access 671:19 672:8 685:14 717:21 accomplish 656:6 885:1, 2, 4, 6 accomplishes 802:6 account 662:14 709:25 723:9 725:19 741:10 748:22 751:4 accountant 713:24 820:21 accounted 674:11 accounting 794:10 858:22 866:12, 13 accounts 726:22 751:20 858:12 877:11 accrual 859:6 accrued 867:12 accuracy 800:12, 12 accurate 643:2, 6 657:10 659:10 677:25 685:13 816:5 852:10 950:13 962:8 accurately 640:20 645:3 722:19 743:14 achieve 687:10, 24 736:15 824:8 849:3 achieved 764:22 786:19 achieves 657:1 achieving 784:21 acknowledge 670:6 acquired 712:25 810:13 acquiring 693:3, 5	acquisition 693:12, 13, 15 707:1 916:7 924:1 acquisitions 693:10 across-the-board 756:3 758:13, 24 act 643:19 695:4, 6 696:9, 16, 21 716:5, 8 718:7 723:6 815:3 826:16 880:17, 22 882:2, 11, 12 884:23 941:9 942:16 Activities 775:9 776:13 actual 661:22 670:13 694:20 703:7 714:22 728:13, 18 729:11 750:21 754:2 763:9, 21 772:24 773:25 782:12 786:20 794:21 795:20 809:14 860:7, 13 864:10 908:21 add 708:7 799:21 812:5 842:3 891:9 added 722:12 772:12 827:5 948:17 adder 796:14, 16 adding 819:20 947:12 addition 709:20 750:25 764:15 820:8 843:3 888:24 947:11 additional 687:19 688:5 754:8 799:22, 24 801:7 814:18 815:9, 18 816:10, 14 847:15, 15, 18, 24 853:1 854:17 858:22 869:2 873:8 881:17 883:16, 18, 20 884:1, 2 944:8 958:3 Additionally 799:23 800:14 additions 766:13, 17 787:24 788:2, 12 809:23 address 636:10, 11 758:6 777:16 808:11 835:11, 14, 14, 15 839:23 846:21 851:10 892:7 893:19 894:9 930:18 931:10 932:13, 25 933:2 934:9, 25 935:1, 9 938:21 941:2 945:21 addressed 771:17 932:12 934:19 935:2 941:10 adds 751:19 adequate 639:6, 8, 11 640:2, 5 645:16, 20 664:5 665:16 688:7, 18	718:23 775:11 777:4 835:16 adjust 662:16 761:5 adjusted 755:18 796:13 818:22 adjusting 898:23 adjustment 653:21 658:22 697:12 699:1 726:6, 16 727:5 728:2 744:3 745:19 751:10 754:3 789:15 800:3 adjustments 660:18 692:22 745:24, 25 747:12, 13, 22 754:4, 6 766:19 768:13 773:17 790:17 administration 637:20 Administrative 627:15 800:7 802:20 962:10 admit 682:4 852:23 853:5 854:13 admitted 680:23 682:5 805:1 854:22 adopt 799:5 805:20 830:15 932:3 adopted 647:8 793:15 803:24 804:5 adoption 935:13 ads 774:17 advance 798:9 adversely 663:6 advertising 751:12, 14, 15, 18, 22 752:3, 4, 7, 8 774:3, 7, 13, 18 advise 659:17 ADVISORY 629:12 633:1 ADVOCACY 628:13 631:17 654:6 758:9, 12 764:17 777:11 799:3 803:17, 21 804:4 827:20 829:24 832:11 834:8 837:24 853:25 854:3 888:19 910:1 929:15 936:16 938:6 939:10 941:12 942:11 943:11 954:10 956:17 957:22 advocate 656:21 693:1 advocates 646:24 afford 656:14 657:4 934:8 affordability 738:4 AFLOA 630:16 aforementioned 962:9 afternoon 768:16 806:12 807:9 808:13 809:1, 2 885:23
--	---	--	--

AGENCIES 630:13
679:21 685:24 690:3
715:11 723:6 769:24
770:2 939:11
Agency 636:17
Agency's 940:21
agent 837:15
aggregate 857:15, 23
aging 802:3 931:21
953:4
ago 637:23 642:12
706:14 712:8 744:1
753:2 782:10 812:2
829:16, 16 881:3 885:5
912:2 941:14
agree 640:13 646:9
649:2, 19 650:1, 21
657:5 659:5 666:12
671:2 675:1 699:20
707:13 713:12, 23
719:2 730:2 752:5
753:15 758:17 760:3
768:10 777:19 784:13
812:3, 4 813:8 826:15
828:12, 22 831:22
848:14 862:6 885:7, 10
agreed 635:8 698:14
929:3 938:17 958:18
agreement 642:16
644:7, 14 646:7 647:19
650:13 693:1, 6, 8
707:9 758:21 762:4
801:18 804:15 814:25
954:19
agrees 943:13 949:23
953:20
ahead 679:13 788:22
802:9 817:4 835:12
846:9 887:4 924:3
944:22 956:15
ahold 736:9
Air 630:18 747:20, 20
831:12
aircraft 741:11, 19
747:17, 24 767:9
768:23 849:22, 23
851:23 855:19, 21
861:11 948:11
airfare 767:21 768:10
769:24
airplane 766:15 768:6
770:12 872:2 940:10
943:15
airplanes 769:15
Alaska 648:7, 10 673:8
709:19, 24 710:6, 9, 11
Aldyl 823:1, 2, 6, 12, 13
905:15, 17, 20 914:17

920:9, 12 923:15, 16
924:21
align 651:17
aligned 665:3 667:1
Allentown 895:12
alley 897:12
allocate 640:15
allocated 646:14
674:22 721:13 754:2, 2,
4, 5, 7 855:24 859:11
866:8
allocates 640:20
allocating 645:12
allocation 642:21
643:5, 11 644:8 645:2,
9
allocations 754:10
866:23
allow 658:5 681:11
734:21 813:11 815:18
820:3 821:11 856:10,
14
allowed 659:21 661:21
742:22 746:11 803:14
852:12 881:22 907:12
allowing 756:6, 15
802:24 813:2 821:10
allows 643:15, 16
658:8, 22 660:18
661:25 671:22 812:20
alluded 718:16
alternate 856:7, 8, 17
alternative 703:15
850:1 855:19 856:4, 7,
17 931:22, 22
alternatively 936:19
amazing 960:13
amortization 881:15
amortize 697:25 748:25
amount 670:3 728:17,
20 735:25 745:7, 10
748:8 759:17 760:3, 5
761:25 762:10 763:24
772:24 779:2, 4 780:3
787:18, 19, 19 789:14
799:22 800:10 803:6
805:20 814:25 815:3
817:9, 12 818:7 819:16
826:11, 17, 18 854:15
865:9 868:23 874:19,
20 878:14 885:3, 3
904:20 938:5 957:6
960:15
amounts 744:18 879:1
analogous 697:21
analogy 865:8
analyses 639:21

analysis 638:1 639:18,
20 649:5 650:2, 8
652:7 653:1, 4, 9, 14, 20
654:9 664:17 686:2
699:16 700:12, 14
703:11 705:24 707:2,
17, 20, 22, 23 708:2
709:11 722:23 724:23
726:20 728:9 732:1
735:1 760:20, 22 761:8,
10 765:13 767:12
768:5 800:9 871:11
882:3 955:24
analyst 637:22 729:4
730:17 733:16 798:7
871:24
analysts 676:8 680:14
729:17
analyze 798:9 929:16
analyzed 886:4
Andrew 630:15
Andrew.unsicker@us.af.
mil 630:20
anecdotal 865:19
animal 671:25
animation 778:13
announced 692:25
693:6 707:1
announcement 693:13
723:16
annual 668:20 669:10
773:24 782:3 899:16
908:12
annually 802:22
844:12, 13 847:2
848:22
anomaly 916:25
answer 661:19 718:15
740:18 762:16 767:2, 3,
6 768:13 772:10
814:12, 12, 14 858:5
862:6
answered 762:10
867:12 872:7 873:4
answers 637:14 692:10
740:15 799:7
anticipate 945:2
958:24, 25
anticipating 703:15
anti-safety 943:21, 22
anxious 809:3
anybody 700:10
831:12 879:13 924:17
928:6 944:14, 15
959:12
anybody's 885:12
anymore 748:20 749:4

751:3 815:20 885:13
anyone's 861:24
anyway 665:2 759:23
946:4 955:12
Aon 742:25 759:3
apologize 756:9
766:21 873:22 874:10
878:6 895:11
App 906:15
apparently 863:5
944:17
appealing 667:22
appear 752:8 950:25
APPEARANCES 627:12,
24 628:1, 24 629:1, 24
630:1
appeared 954:12
appears 784:8
appetite 667:25 668:5
702:25 933:9
apples 702:16, 16
732:16, 16
application 727:3
728:6 782:17 938:25
942:1
applied 726:19 727:5,
6 728:3 746:2
applies 698:19
apply 694:12 698:22
701:20 726:25 728:5
813:15 826:7
applying 719:19 796:12
appointments 762:8
appreciate 722:23
871:21 920:22 951:1
953:13, 25 955:14, 19
956:5 957:22 958:6
appreciated 942:9
954:3
approach 655:13 679:6,
9 729:9 749:7 785:24
811:1, 4 822:2 837:25
840:18, 23 841:3 842:2
847:9 849:5 885:23
886:6 890:1 935:5
937:1, 18 952:24
955:17
appropriate 645:10
650:21 651:5 652:23
655:14, 15 662:8 665:4
670:9, 12 671:9 674:10
699:15 707:9 715:13
748:1 761:25 795:11
800:16 828:12, 17
829:20, 23, 24 831:23
853:12 855:25 934:6
935:12 940:8 948:18
950:3, 5 953:6

appropriately 793:23
957:21
approval 716:22 832:3
833:2
approve 717:1 761:2
831:25 943:18, 18
944:11 946:1, 5 952:10
approved 658:22 693:7
733:15 758:23 771:8
831:19 832:6, 12 945:1,
3 947:13
approving 924:3
approximated 654:3
approximately 690:12
774:4 877:14 907:2
929:6
approximating 674:14
April 695:18 917:17
ARAM 826:12
arbitrary 938:7
area 638:11 644:6
653:19 668:11, 14, 16
671:5 673:24 674:1
676:11 697:10 699:7
738:17 792:20 802:12
829:10, 12 895:25
areas 642:15 669:21
773:6 845:8 861:10
896:22
argue 784:9 800:8
argued 924:9
argument 800:6 809:15
810:18 824:12 872:18
924:12 931:10, 13
949:11 951:12
argumentative 777:18,
19 792:17
arguments 821:20
arms 663:12
Armstrong 628:15, 16
631:19 632:1, 6, 15, 21
633:11, 17 634:3, 9
635:9, 10 654:20, 21
680:19, 25 686:24, 25
690:13, 15 691:4, 7
705:11 725:25 726:3
731:4, 18 739:16 740:2,
3, 6 749:7, 10, 13, 18, 20
750:1, 11 754:17
756:13 761:14 777:17
790:4, 5 792:16 794:3,
12, 17 797:13, 14, 25
798:3 804:17 805:2
806:5 813:21 825:6, 8,
13 827:12 834:7, 8
842:12, 14, 21 848:3, 4
850:10, 11, 22 852:4, 9
856:25 857:1, 4 863:8

872:14, 16 875:12
876:5 877:20, 21 879:4
882:22 886:25 887:2, 6
888:8 900:13, 16
901:22 904:3 907:24
927:3, 6, 14, 24 928:3
942:19, 20 949:25
958:15, 16 959:3
960:24 961:6
arrived 735:17
article 895:14
aside 701:16 792:23
821:1 822:3
asked 637:13 655:6
675:13 678:2 687:6
703:6 704:3 728:23
731:13 738:8 740:14
744:11 754:1 759:10
760:18 761:16 763:23
765:5, 8 776:16 794:14
799:6 814:8 815:12, 22,
25 838:3 856:2, 3
857:7 872:3, 7 887:22
891:7 909:15 926:11
944:11 956:20
asking 642:15 672:24
687:25 688:3 717:24
726:12, 14 743:15
755:25 763:15 805:6,
11 808:16 814:2
816:19 853:14 858:5
863:23 869:23 871:17
873:6 906:19 909:7, 15
913:6 933:3, 7 947:13
948:1 952:6
aspect 669:3 682:22
683:18 906:23 954:20
aspects 638:16 640:17
664:21 687:21 715:14
assert 941:21 951:18
assertion 812:20
929:23
assertions 689:1 941:4
assessed 799:19
assessing 676:10
assessment 660:23
676:17 690:3 704:17
736:9 738:16
asset 639:20 663:17
707:21 708:1
assets 672:3 701:25
806:20
assign 924:8
assigned 644:11 924:8
950:11
assigning 676:8
785:10 813:17 950:23

assignment 643:1
assist 934:5
assistance 877:15
Assistant 629:4 869:11
associated 742:24
747:17 895:7 916:10
923:16 925:7
Associates 636:15
638:2
assume 806:16 821:4
859:6 861:2 911:20
913:18 923:25 957:15
assumed 781:20
assuming 652:20
789:11 821:4, 6 908:7
assumption 743:16
assumptions 882:16
assure 955:21
Atmos 704:23, 24
705:4 710:24 711:2, 3,
9 725:7 736:2
atmosphere 895:22
Atmos's 711:7
attach 804:14
attached 704:22
754:14 861:24 901:16
attack 680:22 854:14
attaining 688:12
attempt 752:17 828:9
878:15 913:6 945:25
attempted 889:12, 13, 19
attempting 656:7 951:9
attempts 900:6
attention 707:4, 7
946:23 956:6
Attorney 629:4
attorneys 635:7 879:25
959:19
attract 671:18 672:1
685:6 724:4 725:8
734:22 735:24 874:2
attracting 676:4 938:15
attraction 672:6
attractive 702:22
attribute 914:10
audit 658:15 661:6
840:25 841:5, 8, 13
908:8
auditing 836:21
audits 843:20, 21
August 838:9 889:7
authorized 648:1, 14, 22,
25 665:7, 8 671:8
673:14, 21, 22 676:5, 19
677:15, 21, 24 685:1
705:5, 10 710:18, 25
711:12, 20 712:8

725:14 735:14, 20
736:2, 22 773:7 939:8
available 652:18
721:25 838:21 856:6
862:3 874:2 878:4, 17
900:17 906:19, 21
936:10
Avenue 627:4 628:18
629:6, 16
average 641:4, 6 648:1,
5, 19, 20, 23, 25 651:23,
23 671:3 673:8, 15, 21,
24 676:21, 22, 23 678:3,
14, 24 685:20, 22
686:14 689:3 695:11
696:4, 5 701:6, 13, 14
709:6 710:10, 22 713:9
724:13 727:19 735:17
746:19, 22, 23, 23
766:12 767:6 782:2, 19
788:7, 8, 8, 10, 10, 15, 16
789:10 848:21 857:16
869:4 875:7, 14, 17, 21
896:14 911:9 939:13,
14, 16, 17, 22
averaged 766:15 767:7,
7, 8 847:1, 3 848:22
averages 685:3 874:3
avoid 930:9, 9
avoids 940:22
award 673:16 709:22
949:13
awarded 673:21 704:25
awarding 684:24
949:12
awards 684:23 685:17
704:21 858:20
aware 644:9, 12, 20
646:15 647:7, 7 648:13
649:11 654:1, 5 675:18,
18, 22 682:25 683:15
706:6 712:5, 25 717:12
731:22 733:3, 18
756:24 757:11, 15
758:5, 11, 16, 22, 25
759:1, 2, 6 760:12
763:5 770:11 771:9, 16,
20 772:11 773:7, 10
793:15 827:24 828:1,
10 830:9 840:17, 20
858:1 861:11, 11
937:13
axis 700:18

< B >
Baby 880:23
back 656:4, 9, 19 668:1
690:9, 11 693:20 697:6

698:17 707:6 714:1, 25
 718:5 744:10, 18
 746:10, 21 747:1, 23
 759:12 768:10 769:15
 770:15 781:9, 24
 791:18 797:5, 8, 10, 12
 807:13 808:11, 19
 815:16 816:21 820:25
 832:20 834:21 846:3
 857:5 863:22 864:20
 867:25 868:4 873:25
 876:11 879:15, 21
 880:2, 5, 24 885:17
 893:17 897:12, 18
 899:3, 25 911:20 912:1
 915:1 918:5 919:22
 923:12 925:4 926:12
 928:13 934:17 940:6
 941:1, 9 955:6 956:13
background 637:16
 638:15
backup 753:12
backwards 701:6
bad 799:21 811:19
 960:2
Bakken 716:20 717:4
 770:23 858:18 859:13
balance 656:25 661:1
 687:16 688:6, 17, 20
 742:10, 10, 13 752:11,
 14 753:17, 23 754:9
 766:12 779:16 788:11,
 11, 16 789:10 823:24
 824:9 954:6
balances 744:7 752:6
 788:16 800:17
balancing 687:25
 942:16 954:6
Baldwin 766:1
bank 799:19
banking 668:3, 4
bankruptcy 668:3
Barlow 790:21 828:1, 6,
 7 892:16 936:1
Barnes 630:17
barring 752:1
Base 630:18 662:3, 3,
 6 669:6 744:17, 20
 750:25 766:12 770:25
 771:1 780:9, 11 786:18
 790:24 791:8, 9, 11, 20,
 25 792:25 793:20, 24
 794:11 802:6 805:21
 806:15, 21 827:5, 10
 873:24 874:24 935:19
 948:17, 17, 21 953:23,
 24 956:12

based 640:23 643:1
 645:18 654:3 661:25
 664:11 669:13 673:4
 681:10 684:15 704:4
 710:4 735:8 736:9
 741:20 745:2, 20 747:2
 748:18 749:2, 6 761:9
 762:5 767:1 776:5
 784:4, 6, 20 787:4
 793:3 795:1 796:10, 13,
 20 802:17 804:2 812:9
 817:10 818:15 820:14
 825:19, 25 851:7 852:5
 875:21 892:4 894:7
 899:2 905:25 906:21
 908:19 909:4 912:8
 939:22 940:3 950:21
 956:1, 14
bases 669:2
basic 646:14 716:4
 718:3 783:1
basically 724:1 743:16
 784:5 850:17 869:11
 875:18 886:21 887:8
 892:11 896:22 898:22
 901:8 904:1 914:2
 919:3
basis 640:3, 18 666:19
 680:23 681:21 694:14,
 16 699:6 700:25
 708:25 719:15 722:12
 726:18, 22 727:2, 11, 24
 728:9 851:2 856:14
 938:14 952:11
bears 787:10, 11
beat 916:17
becoming 683:7
beginning 695:16
 722:24 914:8 949:19
BEHALF 628:3, 13
 629:12 630:3, 13 631:4,
 17 633:1, 8 646:24
 654:1, 5 714:15 739:1
 754:25 777:11 836:7
 847:21 942:6
belabor 722:6
believe 639:10 640:14
 642:24 643:5 648:16
 649:7 650:17 653:20
 654:7 655:13, 18 663:5,
 8 673:2, 23 675:21
 676:13, 22 687:13
 703:12 706:12 707:25
 724:1, 6 733:11 742:12,
 13 744:9 745:25
 748:17, 19 749:10
 755:9 771:25 774:3
 775:7 782:10 797:12

799:18 803:16 809:6
 819:10 822:16 827:6
 829:5 832:8 837:8
 844:11 848:19, 23
 859:18, 21 861:1 864:9
 869:24 874:6 875:4
 882:4, 5 893:4 897:12,
 17 898:10 899:4, 13, 13
 910:14 915:22 925:2
 931:7 934:24 935:3
 940:2, 18 953:22
 957:18 958:12 959:9
believes 949:8
bell 895:17
belong 776:1, 10, 24
benefit 647:2 688:13,
 15 714:18 716:6, 9
 775:7, 14, 17, 21 776:1,
 24 777:14 779:7
 848:14, 25 870:4 873:2,
 3, 15, 24 881:18 932:8,
 22 951:19
benefits 655:19, 21
 687:20 688:2, 5 771:6
 777:4 784:7 785:7, 11,
 16 787:5, 6 801:8
 848:17, 20 849:4
 873:17, 25 874:7
 877:12 947:23
benefitting 869:24
 873:14, 19
best 645:4 676:15
 729:18 736:10 780:16
 792:6 811:14 825:8
 874:2 915:16 922:1
 923:9 925:3 935:3, 8
 938:21 942:24 943:10,
 19 954:16 955:25
better 671:20 673:18,
 19 685:5, 6, 12, 14, 15
 686:18 700:3 727:12
 730:25 741:2, 3 761:24
 775:24 776:8, 21 777:5,
 15 792:12 795:13
 809:18 822:19 824:22
 832:14 833:8, 20, 20, 20
 870:9 873:15 931:12
 932:10 937:5 957:20
beyond 739:3 794:4
big 672:4, 6 697:2
 706:23 857:20 858:8
 896:17 897:3 909:16
 938:3 948:25
bigger 671:20
biggest 778:19
bill 657:4 658:7 813:6
 940:22

billing 762:11
bills 643:16
binders 764:16 941:19
Bismarck 627:4, 18
 628:8, 19 629:7, 17
 757:10 835:18 867:25
 895:23, 25 897:5, 12
 909:10
bit 638:15 664:15
 695:3 697:6 700:22
 730:1, 6 738:16 762:17
 764:10 783:24 811:12
 826:22 871:23 875:4, 6
 888:4 902:1 911:23
 928:14 948:3 957:12
 959:22
blame 941:3
blanket 746:1 782:7,
 21 794:24
blood 778:13
blowing 774:24
Blue 652:12, 15 730:8
 731:1, 2
Bluefield 687:14, 16
board 746:5 754:10
 770:16 774:14 781:20
 786:1 803:5 871:24
bodies 661:9
Boise 868:4 869:13
bolts 917:23
bond 639:13 649:18
 651:6, 23, 24 652:2
 663:9 667:2 668:7, 10
 670:21, 21, 23 672:7, 9
 676:8, 12, 15, 24 678:13,
 21 679:3 682:22, 24
 685:12 686:5 687:6, 11,
 19, 21, 24 688:10, 12, 18
 697:22 698:1 699:19
 700:13 701:7, 10, 11
 708:8 711:3, 7, 22
 712:11 713:22 715:7
 723:22 724:19, 22, 25
 950:16
bonds 697:23, 24
 698:2, 19 720:6, 17
bonus 808:6 847:19
bonuses 758:1 859:5
 864:22
book 698:7 704:4, 5, 6,
 11, 12, 14, 15, 17 705:1,
 8 750:20
books 751:20 772:24
 901:15
boom 859:14
born 829:17
borne 762:24 874:9, 21

Bosch 633:19 808:11
876:11, 12, 19 877:8
878:13
Boston 769:5
bottom 649:14 676:25
677:9 700:24 734:1, 15
757:7 785:6 789:17
851:13 874:15
bought 773:22
Boulevard 627:4 629:6,
16 630:7 835:17
bounce 697:6
Box 627:17 849:25
boy 951:22
brand 906:8 923:7
break 690:8, 10 715:25
716:3 762:16 774:19
780:2 797:5, 7 879:17,
19 880:4 887:10 928:1,
8, 10, 12
breakdown 747:18
754:1 755:13
Brer 880:22
brief 637:16 638:21
705:21 778:11 852:25
868:2 950:1 955:1
briefing 879:11 958:18
briefings 957:9
briefly 642:11 645:8
794:19 849:17 876:10
878:13 880:18 897:8
926:6 938:4 947:21
951:7
briefs 946:8 958:19
959:2 960:21 961:12
bring 641:12 707:7
778:19 814:11 867:25
898:8 917:14 944:17
bringing 897:22 955:20
957:23
brittle 905:16
Broadway 628:18
broke 733:8 911:5
broken 904:12
brought 693:19 850:14
855:13 946:23 958:4
Brubaker 636:15
budget 754:1 934:2
budgeted 754:6, 11
budgets 754:3, 5
796:19, 19
build 920:5
Building 627:3 716:23
896:20, 23 897:13
909:10
buildings 771:3, 5
896:11 897:5, 23 898:3
builds 871:9

built 739:4 864:19
865:1, 3, 4, 9 870:7
873:6, 7 874:9, 18
875:5, 24 906:20
945:15
bulk 837:6
bump 716:11
burden 800:7 802:20
862:7, 9 863:16 936:21
burdens 656:13
buses 747:24 768:24
business 637:19, 23
650:13 653:15, 17
658:20 659:5, 6, 11, 20
682:14, 15 717:19
738:1, 14 747:25 780:4
812:25 939:6 944:16,
18
button 960:13
buy 945:14, 15
buzz 802:2, 3

< C >
calculate 772:15 789:10
calculated 722:20
745:6 783:4 815:24
calculating 793:20
calculation 745:2
747:1, 11 748:11
753:20 765:18, 23
770:24 771:2 884:6
calculations 766:6
907:1 908:24
California 896:16
call 635:3, 8, 19 658:13
690:13 695:23 733:17
739:16 758:6 780:6
797:8, 13, 14 808:10
830:7 834:16 866:9, 10,
21 876:11 879:15
884:18 885:17 906:16
called 684:22 801:16,
16 808:19 816:9
887:24 888:25 897:19
936:24
calling 666:13 790:16
880:24 922:17
calls 690:15 762:9
869:12
capacity 636:14 645:16
718:23 798:6
capital 638:13, 20
639:3, 20 640:1 651:7
662:1, 7 667:4 668:25
669:13, 15 671:20
672:2, 6, 8 676:4 685:6,
14 691:18 707:21

708:1 724:4 725:9
735:24, 25 934:3
Capitol 627:3
CAPM 703:16 707:22,
25 708:18 729:3 730:4,
12 735:11
Captioner 627:7 962:6,
21
capture 697:8 701:18
703:20
captured 700:1 703:13,
16
captures 703:3
Cardwell 798:25 799:2
care 770:10 868:22
871:3 873:12 903:15
942:15 951:24 957:16
careful 773:12 955:23
carries 947:4
Carrington 752:24
carry 645:16 743:19
Cars 747:24 768:24
cart 945:22, 23
Cascade 731:25
732:12 733:2, 14, 16
Case 626:5 635:5, 5
637:1, 3 638:19 639:1,
24 642:13 647:9
649:11 651:2, 20 653:4
658:15, 23 660:8, 9, 19
661:6, 7, 10 662:1, 9
663:19 664:17 665:15
666:23, 25 672:24
673:4 675:20 677:17
683:4 691:10, 17, 18
692:20 699:3 700:4
705:10 706:3 707:10
709:19 711:1, 13, 17
713:4 716:16, 22 726:7
740:8 743:14 744:17
753:15 758:5, 11, 12
764:17 765:10, 16, 23
766:7 767:14, 16
771:10 772:23 774:5
777:12 783:7 787:3
790:13 795:5, 18
796:25 798:15, 22
799:2, 13 800:22
801:15 803:9, 15, 18, 21,
23 804:6, 13 805:8, 12
806:13, 21 807:15
811:8, 16, 19, 20, 22, 23
812:18, 24 813:19
816:3 823:20 825:18
827:8 831:17 832:13,
23 833:3, 24 834:10
843:19 846:4, 22 847:2
848:22 850:13 854:21

855:23 860:10 861:8
862:9 863:17 864:20,
25 865:1, 3, 10 870:8
874:9, 18, 20 875:5, 16,
19, 20 880:18 881:12
882:1 883:12 887:25
893:24 928:5 929:11,
20 930:4, 25 931:19
933:10, 13, 18, 22
935:14 940:3 941:12
942:13, 18 947:6, 11
948:23 949:19, 23
950:3, 8, 21, 23 958:2
cases 638:8 660:21
664:19 665:14 666:24
675:15 678:2 683:2
696:7 698:12 705:25
707:6 709:6, 7, 14, 18
710:16 713:6 722:1
779:19, 21 786:22
798:9, 10, 11 812:19
827:7 831:1, 13 865:20,
24 920:17 933:12
937:24 944:6
cash 639:17 696:10
704:12 738:1
Cass 962:22
cast 895:15
catastrophic 935:1
categories 844:16
857:23 890:6, 8, 11
category 756:19 873:12
cathodic 841:6
cathodically 841:5
caught 707:4
causation 645:5
cause 666:20 693:21
701:12 733:6 800:17
809:10 895:21
caused 698:24 707:6
722:15 886:18 887:16
923:25
causing 922:10
Cavalier 752:24 753:10
781:8
cell 956:9
center 866:9, 10, 21
cents 718:4, 6 800:4, 5,
6, 20
CEO 938:10
certain 638:9 640:17
641:2 642:25 656:14
659:10 675:20 703:23
725:22 735:6 748:25
763:17 772:12, 13, 14
774:12 784:11 793:22
811:2 823:2 847:4
904:20 920:4 922:9, 10,

11, 11 932:20 934:20
954:19
Certainly 648:24 652:1
655:21 659:9 678:6
682:8, 24 697:2, 7
723:11 729:7 735:19
736:13 738:20 747:12
748:11 759:25 763:23
769:17, 23 771:16
772:18 773:5 791:6, 18
793:4 795:8, 18 810:20
811:3 814:16 830:17
841:4 849:4 851:9
852:9 853:23 854:4
915:25 931:21 932:10,
13 933:3, 23 934:16
939:2, 12 941:18 942:2,
9 946:23 958:23
certainty 810:19 936:22
CERTIFICATE 962:1
certification 637:21
Certified 627:6, 6
962:5, 5, 20, 21
certify 962:6
cetera 853:1
Chairman 631:10, 24
632:9, 19 633:6, 14, 24
634:7 665:22, 25 667:9
720:2, 5 721:1 780:25
781:3 783:16 812:13,
16 814:4 816:24 817:2,
5, 7, 23 818:9 844:5, 8
845:20 867:16, 19
869:14 878:10, 11
883:8 884:22 918:19,
22 925:25 955:16
challenge 718:1
802:25 830:24 831:9
challenged 832:24
861:10, 11, 12 862:12
952:25
challenges 853:15
957:24
Chamber 753:10, 11, 13,
14 781:8
Chambers 752:24
chance 682:6 691:20
825:7 850:12, 25
917:20
chances 921:18
change 644:3 657:25
658:6 662:2 695:21
696:19 715:8 725:15
753:22 796:15 797:1
800:16 876:25 882:4
899:2 946:24
changed 643:22
657:17, 20 658:7

740:22, 24 748:6
783:12 800:19 837:25
881:4 899:5
changes 691:24
692:13, 16 766:11
changing 800:4
characteristics 644:3
645:13, 14 667:3
characterization 861:17
characterize 666:10
756:22 811:25 814:19
charge 646:14 655:9
656:12 657:8 755:14,
19 799:17, 24 800:1
807:22 808:9 811:20
813:7 876:20 877:6
879:1 884:21 940:17
charged 860:23
charges 660:22 662:5
878:14
charging 881:6
charitable 774:7
chart 647:23 710:8
864:8
charted 654:10
charter 637:21 768:9
chartered 747:20
cheap 769:8
cheaper 856:11, 15, 20
check 666:16 675:25
683:18 686:21 730:19
745:15 755:12 764:8
799:17, 21 800:1 807:9
808:9 811:19 813:5
876:20, 20 878:14
879:1 945:17 956:25
958:12
checked 807:22
checks 807:10
Chesterfield 636:12
chief 934:22
Chip 652:12, 15 730:8
731:1, 3
choice 950:8
choose 854:15
chose 883:14 924:16
chosen 852:14
CHRISTA 626:21 627:5
962:4, 18
Christmann 631:10, 24
632:9, 19 633:6, 14, 24
634:7 665:22, 25 667:9
720:2, 5 721:1 780:25
781:3 783:16 812:13,
16 814:4 816:24 817:2,
5, 7, 23 818:9 844:5, 8
845:20 867:19 869:14
878:11 882:8 883:5, 8

884:22 918:19, 22
925:25 955:15, 16
Christmann's 733:21
chuck 915:4
circuit 683:10
circulating 871:7
circumstances 701:8,
15 854:10 855:13
cite 667:20
cited 663:15 686:13
810:7
cities 893:21
Civic 776:13
claimed 638:25
claiming 899:25
claims 937:4
clarification 875:13
clarified 738:10 877:4
clarify 673:12 719:15
755:1 787:18 789:25
873:22 891:6 918:23
clarifying 891:13
class 636:25 638:15
640:13, 14, 20 642:17
643:1 646:12 655:12
869:9 903:16 918:23,
25 919:1, 3, 12, 15
951:9
classes 636:22 640:16,
21 641:2, 3 642:22
643:12, 13 646:8
classification 644:21
645:25
classifies 649:20
clauses 782:3
claw 744:18
clean 696:14
clear 642:17 647:2
648:17 676:18 756:10
758:10 763:22 765:9
766:21 771:12 777:10
784:24 792:24 817:19
865:21, 25 866:7
874:13 883:9 893:20
910:1 920:2, 3 932:15
935:20 949:7
cleared 752:20
clearer 774:19
clearly 931:18 941:16
942:7 947:23 949:4
Cleveland 765:25
790:20 828:1, 1, 6
892:16 911:25 926:25
936:1 951:22
click 912:24 914:3
clients 777:16

close 693:15 719:4
722:13 809:4 854:20
879:16 960:18 961:11
closer 641:9 814:1
883:18
closing 812:6 928:21
942:21 947:10 953:15
959:14
closings 880:1 927:20
928:1, 10
Club 776:13, 18
clue 915:4
cluster 700:21
coach 869:6
Code 836:24, 25 837:1
838:13 887:11 903:16
912:9 913:15
Coffman 630:5, 6
631:8, 14, 21 635:13, 14
654:22, 23 655:1
661:20 662:18 675:13
681:4, 7 687:1, 2, 5
689:7 712:16, 17, 21, 24
713:16 737:1, 3 750:3,
4 777:15, 24
Coffman's 712:2 795:23
coincide 751:15
cold 940:22
collaborate 931:9
collaboration 929:21
930:15
collect 818:19 820:4
881:9, 13, 18 882:14, 17
924:4
collected 660:25 697:3
878:1 920:21 930:17,
18
collecting 818:12, 14,
18, 20, 23 819:3, 5, 10,
19 820:9, 10, 12 884:13
924:6
collection 647:3
collections 646:22
647:16 659:2
College 628:7
column 727:19, 21, 22,
24 728:1, 1, 3, 4, 4, 5
columns 727:18 728:1
858:23
combat 862:12
combination 689:5
877:5
combinations 678:8
combine 677:12, 21
908:13
combined 677:14 678:8
come 650:2 674:2
687:21 690:8 722:13

724:23, 25 725:12
730:4 735:1 744:8
797:5 814:6 832:2
833:1 837:13 838:3
849:3 857:5 874:10
879:21 909:9, 15 927:8
929:11 930:25 931:22
932:1 937:15 939:25
940:6 947:6 950:15, 23
952:15 953:2 955:25
956:24
comes 720:12 754:7
782:6 833:6 855:1
925:4 934:17 938:2
952:1 956:19
comfortable 921:22
coming 666:11 674:3
716:8 773:21 787:20
833:3 835:25 850:19,
19 921:23 946:16
955:18 957:2 960:21
Commencing 626:17
627:2
comment 670:8 752:23
810:12 871:21
commented 647:5
comments 670:7
701:23 702:18 704:2
928:21 947:9 953:15
Commerce 637:24
716:22 752:25 753:11,
11, 13, 14 781:9
commercial 747:19
768:9 776:18 849:21
855:19 856:12, 22
861:2 868:7 869:6
COMMISSION 626:2, 4
627:1 629:5, 15 637:24,
25 645:8 647:8 651:1
659:15, 25 660:19
661:9 662:8, 11 665:8
671:9 673:20 679:10
681:3 684:22 685:11
687:9 703:8 704:2
709:24 713:5 725:13
734:21 736:4 744:18
755:25 758:2, 23 761:1
771:8, 13 775:23 776:4
777:7 790:18 798:5, 13
799:13 802:21 803:24
805:6, 11 808:6 813:8
816:9, 18 819:11
823:25 829:25 830:10,
13, 19 831:20, 24 832:3,
6 833:2, 7 835:7 836:6,
7, 9 847:14 864:22
878:20 888:25 894:6
899:21 928:23 929:13,

22 930:14, 23 932:9
934:14 935:8 937:24
940:25 941:22 942:1, 3
948:9 950:22 951:8
952:20 953:7, 13, 21
954:5 955:22 957:5
Commissioner 631:9,
11, 15, 23, 25 632:8, 10,
18, 20 633:3, 5, 13, 15
634:6 642:1 662:24
663:2, 11 665:20
667:11, 14 672:16, 23
676:13, 14 684:3 689:8,
12 703:6 715:21, 24
719:25 721:3, 7 725:23
726:11 733:20 778:7,
10, 15 780:23 783:18,
21 788:21, 24 789:24
808:22, 25 812:12
817:1, 20, 22 818:1, 11
825:4 834:17 835:7, 20,
24 842:9, 20 843:7, 11
844:3 865:14, 17
867:15 869:15, 16, 20
872:11 873:1, 21 878:8,
9 883:3, 4 885:9, 10
911:14 916:12, 16
918:18 924:18 926:1, 2
953:16, 17 955:15
956:3, 4
Commissioners 662:23
797:9 808:21 865:13
878:7 883:2 916:12
932:16 934:7, 13
945:24 953:16 960:9
Commissions 655:15
664:12, 13 665:3
684:24 685:7, 24
688:19 705:5 725:11
836:5 859:5 932:21
949:12
Commission's 804:1, 11
899:19 948:13
commodity 663:24
755:13, 19
common 655:14
674:20 695:11, 15
714:11 721:12 729:23
communities 829:7
893:22 920:5, 22
957:12
community 828:20
829:3 845:11, 11
922:13, 14
comp 755:22 756:17
778:18, 18 779:1 859:6
863:19

companies 638:10, 14
650:3, 6, 7 651:12
654:4 663:23 667:2
671:12, 16, 17, 25 672:3,
15 673:12 676:25
678:12 679:23 680:2
683:6, 8 689:6 693:11,
19 695:12 696:13
698:11 701:19 702:7
703:1, 2 704:18 705:9
706:9, 11 710:1, 3, 5, 25
711:20 715:7, 10, 11, 12
716:23 717:7, 9, 10
720:11 722:4 723:1, 2,
4 729:14 736:8, 19
738:24, 24 802:4
837:19 841:2, 4 844:10
915:1 939:4, 5
Company 639:1 641:4
642:16 644:10 646:8
649:22 650:19, 21
651:15, 18, 19 652:21
653:1, 4, 6, 8, 10, 13, 22,
24 654:2 655:5, 7
658:13 669:16, 19
670:2, 4, 15 671:4, 5, 13,
18 672:1, 9, 10, 11
674:6, 19 683:11, 21
689:1, 15 693:3, 4, 23
694:1 696:7 697:20
698:17, 23 699:16, 17,
19, 25 701:21 706:14
707:2 709:22, 23, 24
710:1, 6 711:17 714:18
715:14 718:13, 23
719:8 721:11, 12, 21, 24
722:16, 21 723:15
724:22, 23 726:20
729:8 733:18 734:22,
22 738:12 742:14, 22
744:25 746:4 747:18,
20, 22 748:10, 19, 22
749:1, 4, 23 750:17, 23
751:3, 17 752:2 754:1
756:16 758:17 759:2
762:7, 9, 22 763:11, 11,
24 764:4, 6, 16, 21
766:2, 7, 23 767:8
768:5, 8 769:14 772:4,
22 773:1, 18 774:4, 17
775:8 776:1, 10, 23
777:2, 2, 5 780:10
781:4 782:9, 10 786:11
787:2 791:25 792:3, 4
796:25 799:20, 23
801:6, 8 802:25 803:2
804:5 806:16 810:14
813:7, 8, 10, 13, 14

816:21 817:11 818:6,
16 820:12 821:2
822:18, 22 823:5 824:8
825:18 826:1, 8 827:21
829:10, 24 830:13, 14,
18 832:10 833:1, 6, 21,
22 836:23 837:23
840:25 842:7 844:20
846:16 847:4, 18
849:20 854:9 856:4
866:3 869:11 873:13
880:19 889:7, 12, 18
891:15, 23 892:20
893:24 894:5, 6 898:15
913:10 915:20 916:1, 8
929:10, 21 930:7, 21
931:3, 16 933:13, 18
934:10, 22 935:17
936:24 937:25 938:2
939:9, 21 940:1, 10, 14,
17, 25 941:5, 21 942:6,
9, 25 943:1, 2, 5, 6, 13
944:4 945:18 946:15
949:15 952:24 954:1, 8,
8, 9, 11, 25 956:19
957:18, 24 959:23
Company's 636:20
639:3 640:1, 10, 12, 19
641:1, 13 642:17
682:19 684:3, 17
714:19 718:11 737:21
738:1 741:16, 20 742:3
743:1 746:21 747:25
751:8, 13, 24 753:16
757:7 766:11 770:12
780:7 785:8 788:4
791:10 812:25 822:1
830:1 832:4, 20 836:22
842:6 848:13 869:22
899:22 900:5, 8 929:6
932:1 936:6, 10 950:10
Company-wide 762:5
comparable 651:6
735:14, 20 874:4
comparative 702:6
compare 725:14
compared 669:8
676:23 719:11 725:6
730:17
compares 840:23
comparing 686:7 722:2
869:2, 5 874:3 882:9
comparison 693:9
695:12 705:25 723:22
733:17 768:7, 8 770:21
849:25 855:19 868:5, 6
869:2 939:3

comparisons 702:15
747:19, 21 849:20
851:7
compensate 639:12
compensation 639:7
640:7 653:7 688:23
742:1, 4, 4, 11 743:3, 8,
11 744:4, 6, 12, 13, 15
756:1, 7 758:1, 25
759:4, 7, 17 760:14
761:24 762:1, 19, 22, 23,
25 779:8, 14 785:19
787:7, 8, 12 847:19
848:11 858:16 861:12
869:23 938:6, 14
943:16 947:21, 23
948:3, 4, 7
competent 672:1 939:6
competitive 638:5
703:2 717:10 743:2
compile 845:7 850:4
compiled 849:11, 13
complaints 762:12
complete 660:23 681:5
772:15 778:21 931:1
completed 637:21
793:18, 23 931:5
completely 792:10, 25
completeness 681:10
778:23, 25
compliance 838:11
complicated 664:3
complied 889:7
comply 838:8
complying 836:23
component 653:17
655:16, 16 657:7
668:24, 25 695:25
698:20, 22 717:19
727:20 763:3 786:24
881:5 933:4 935:22, 24
954:9
components 918:8
954:3
composed 774:20
compounded 819:4
comprises 893:23
compromise 657:6
concentration 637:20
concern 647:2 666:20
822:17, 23 823:12, 18
824:1, 2 832:12 852:11
896:17, 17 929:4
932:25 934:22 942:13
944:20
concerned 646:25
810:22 832:17
concerning 685:25

concerns 644:25
646:19 800:25 802:17
803:7 829:23 831:13
839:7 895:24 897:6
932:5, 6, 13 935:9
938:21 941:10 952:21,
22
conclude 640:6 659:24
concluded 961:15
concludes 790:2
conclusion 639:23
724:5 956:24
conclusions 722:8
804:12
concrete 897:17 944:13
conditions 725:15
conduct 898:15
conducted 827:21
confidence 925:17
confident 667:3
confirm 648:15 663:3
confirmed 657:11
895:9 904:24
confuse 825:7
confused 755:21
935:16 944:18
confusing 751:23
752:16 825:10
confusion 752:1 912:16
connect 645:21, 24
connection 895:17
consequence 656:15
906:24
consequences 641:11
Consequently 643:17
687:23
conservation 643:19
657:14, 16 658:4
consider 641:11 651:2,
2 653:13, 18 659:17, 18
671:15 682:13, 19
684:8, 25 686:19
689:19 693:19 699:15
721:10 723:12 737:21
779:3 814:20 838:25
890:15, 16 927:10
933:17 949:13 950:22
960:14
considerable 780:2
considerably 689:14
704:7
consideration 652:23
656:23 657:12 659:20
687:8 693:11 746:3
considerations 657:7
736:20 942:15 954:17
considered 639:17, 19
652:25 653:9 661:4

676:7, 9 779:19 793:19
881:25 934:3 937:22
940:3
considering 636:24
653:3 659:15 662:17
684:5
consistency 717:16
consistent 649:17
651:8 664:18, 19
670:23, 24 678:24
686:14, 20 687:24
689:6 719:20, 23
736:17, 18 754:9, 12
758:2 771:21 779:24
940:24, 24 950:18
consistently 667:6
673:16, 20
consists 678:7 858:17
Consortium 775:15, 19
constantly 955:5
constitutes 962:7
constructed 662:2
construction 665:12
683:15 689:17 717:2
898:8 911:21 913:8, 19
922:11
constructively 643:19
consultant 775:24
consumer 661:4
688:11 693:1 915:17
954:6, 11
consumers 638:7
659:8 660:16 687:12
688:13 817:13 954:14
consumption 643:4, 8,
15, 22 657:17, 20, 25
658:6, 8
contain 838:15
contained 855:9
contains 914:20
contentious 955:7
contents 838:17
continually 692:15
898:22
continue 646:12
702:13 739:14 780:9,
16 889:13 898:18, 19
900:7 903:20, 24 935:6
945:13 952:2 957:19
continued 627:24
628:1, 24 629:1, 24
630:1 669:5 935:5
954:1
continues 663:14
952:5 954:24
continuing 839:14
930:12 931:15 940:17

continuous 898:21
906:6 920:24 923:8
continuously 832:21
900:8
contract 913:20
contractor 913:20
914:5 922:18
contractors 914:7
923:4
contracts 913:8
Contrary 937:9
contribute 661:12
910:4
contributions 774:8
control 839:13 931:1
conversation 716:1
843:2
conversely 930:7
convince 923:18 924:2
cool 956:10
copies 641:18, 21
copy 681:4 731:19
737:11
corporate 746:14
849:21, 23 851:19, 23
855:21 856:11, 14
860:22, 23 866:3, 20
868:6, 11 872:2, 4
correct 635:9 642:19,
22, 23 647:24 648:3, 8,
16 649:5, 10, 22 650:3,
4, 7, 9 651:24 652:7, 11
653:1, 21 654:11, 13
666:6, 16 669:25 670:1
673:13 677:10 678:1,
15, 16 679:24 684:18
694:3, 6, 7, 11 699:9
706:5 707:16 709:1, 11,
19 711:17 716:6 727:1,
9 734:1 735:1, 6, 16
738:7 740:18, 18
743:12 745:2, 8, 20
746:12 747:14 748:3
749:11 752:5 753:21
754:15 755:5, 8 757:4,
13, 14, 18, 19 759:14
760:6 765:7, 20 766:23
767:12, 15 773:9 775:6
777:8, 9 783:15 791:25
793:21 798:16, 19
799:3, 4 800:23 803:10,
11 805:13, 14 806:15
811:10, 11 813:3
814:25 815:1, 10, 21
816:5, 23 817:18
822:15 825:20, 21, 23,
24 826:3 829:2 832:21,
24 833:3, 4 843:4, 5

844:25 847:7 851:25
855:6 857:14, 18, 21
858:1 859:8, 23 860:15
861:12, 14, 21, 22, 25
862:8 864:15 865:20
867:13, 14 869:8
875:19 877:17 884:1,
15 887:18 888:6 890:9,
13 892:4 894:4 899:8
900:21, 23 901:10
902:4, 5, 20, 21, 23, 24
903:3, 14 904:11, 12, 15
905:3, 4, 6 907:17, 22
913:10, 11, 16 916:1
918:9 922:15 926:12,
16, 17 958:15, 16 959:3
correction 692:1
corrections 637:11
740:25 741:4 747:4, 14
753:18 754:13
correctly 692:5 786:6
796:17 813:16 844:15,
20 860:18
corrects 950:20
correspond 724:19
887:8
correspondence 725:2
corresponding 771:2
935:13 939:7
Corrosion 839:4, 13
cost 636:23, 25 638:13,
15, 20, 20 639:9 640:2,
9, 13, 14, 15, 17, 20, 21,
23, 24, 25 641:5, 7, 10,
12 642:17 643:11, 12,
17, 22 644:1, 3, 4, 8, 10,
21 645:5, 12, 22 647:11
653:21, 24 654:2, 3, 6
656:3, 4, 8, 9, 18 657:18,
22, 24 658:9 659:3
660:24 663:24 664:1,
22 669:13 671:7, 23
674:2, 6, 9, 11, 13, 14, 17,
21, 24 675:4 677:18
684:15 687:12, 17, 18
688:6, 10, 11, 11, 14, 25
691:18 694:10, 12, 15,
20 697:12, 15, 17, 21
699:1 715:3, 4 721:12,
14, 17 722:3 726:6, 16
727:5, 23 728:2, 10, 18
746:10 747:19 755:4, 7,
11, 14, 17, 19 762:21, 24
765:15 768:9, 10
770:20, 20 772:8
773:25 778:17 780:4
788:10 791:2 795:12,
20 800:3, 4, 7, 18 832:5

850:1 855:20, 25 856:3,
5, 5, 9, 18 857:21
860:24 869:3, 6, 13
924:25 933:14 940:19
949:23 954:7
costed 698:17
costs 643:1 646:4
653:23 654:4 655:8
656:16 658:2 659:17
667:4 674:5, 21, 23
675:20 688:1 697:19
713:22, 23 714:14, 23
715:2 721:9 722:1, 18
728:13 746:2, 3, 4, 5
765:12 767:21 770:21
773:3, 16, 17, 19 781:18,
25 782:5, 11, 12, 12, 19,
24 785:10 795:3, 4, 7,
14 796:20 801:13
822:11 832:11 856:8,
17 860:21 861:11
862:7, 11 871:11 894:2
931:4 949:15
cost-saving 944:9
counsel 655:5 680:17
682:5 689:1 811:5
832:23 926:4, 11 958:9,
18
count 957:14
counted 713:10
counting 713:13, 13
860:18
country 655:10 676:19
713:7 716:18 937:14
939:14
County 962:22
couple 655:4 687:2
698:12 721:8 724:12
728:14 731:12 745:14
783:22 795:9 799:16
812:10 865:18 867:21
902:15 911:13, 16
919:9 938:4 956:13
957:2 958:8
coupling 917:10, 18
couplings 894:21, 24,
25 895:7 904:21 905:3
912:21 917:5, 7, 9
course 742:21 809:21
896:21 928:24 942:7
954:11 957:1
Court 634:5 635:3, 11,
13, 15, 17, 20 636:4
641:20, 24 642:5
654:20, 22 661:19
662:20, 23 665:22
667:11 672:18 675:7
679:8, 11, 13 680:17, 22

681:2, 11, 17 682:4
686:24 687:1 689:8
690:7, 11, 17, 22 691:4
705:14 712:16 713:17
715:18, 21 720:2 721:3
725:25 731:6 737:1, 5
739:10, 12, 14, 17, 21
740:2 749:9, 12, 19
750:3, 5, 7, 9 754:19
761:18 773:13 777:19,
24 778:4, 7, 14 780:25
783:18 788:22 790:4, 6
792:21 794:7, 15
795:23 796:1 797:4, 8,
16, 19, 25 804:19, 22, 25
806:7 807:2, 18, 23
808:4, 18, 21 812:13
817:1, 4, 20 825:6
827:14 833:13, 15
834:5, 9, 12, 15, 19, 24
835:5, 9, 12, 15, 19
842:11, 15, 17, 20, 23
843:7 844:5 845:22
846:2, 7 847:11 848:3,
5, 7, 9 849:7 850:10, 21
851:2, 11 852:4, 23
853:8, 22 854:7 856:25
863:10, 12 865:13
867:16 869:15 872:14,
19, 21 874:13, 19 875:1,
8 876:6, 9, 12, 15
877:20, 22, 24 878:7, 10,
22 879:3, 7, 10, 16, 19,
21, 25 880:5, 10 882:23,
25 883:2, 5 884:20
885:8, 12, 15, 18 886:8,
25 887:4 888:11, 13, 15
900:13 901:18 903:23
907:25 908:2 911:13,
16 913:5, 12, 18 914:23
915:19, 24 916:11
918:19 926:1, 4 927:3,
15, 17, 19, 25, 25 928:6,
10, 13 937:23 942:19
949:21 951:2, 5 953:15
955:15 956:3 958:8, 14,
17, 21 959:1, 4, 7, 17
960:22 961:3, 8, 10
cover 799:16 811:5
covered 777:1 784:10
801:22 814:7 869:25
872:16 947:9
crack 896:19, 24
cracking 823:3 905:16
crazy 752:9
CRC 626:21
create 914:10 931:20,
21 951:17

created 849:10, 13
931:16 951:13
creating 663:20 911:19
954:6
creation 821:24
credibility 854:14
credit 640:2, 4, 5, 8
646:22 647:15 649:4, 8,
11, 14, 16, 20 651:14
663:6, 9 664:25 665:10,
17 673:19 676:7 677:5,
10 679:20, 23 680:10,
13, 14 683:24 685:24
687:17 688:24 690:3
696:9 699:20, 24 700:1
712:13 714:19 716:2
717:17, 17 719:3 725:1
732:21 733:8 738:2
739:6 766:7, 9
crew 887:23
crews 922:11
cringing 815:8
crisis 665:6
criteria 682:15 784:5,
18
critical 643:24
criticism 767:20
794:20 853:24
criticisms 941:14
criticize 706:19
cross 728:23
Cross-Examination
631:7, 8, 20, 21, 22
632:7, 16, 17 633:11, 12
634:3, 4 641:17 642:9
654:25 705:13, 17
712:20 713:20 754:18,
22 806:6, 10 807:4
857:3 863:14 900:15
908:4 960:4
crossing 843:22, 25
CRR 626:21
curb 951:17
curiosity 738:15
curious 669:21 738:17
785:9 910:6, 8, 12
current 638:3 648:14
667:4 676:19 677:18
683:4 690:2, 4 701:8,
15 703:5 706:7 708:8
711:7 717:17 771:18
783:5, 6, 7, 9, 10 800:3
815:25 816:1, 2 832:9
833:22 929:9, 18
currently 677:20
892:24 939:7, 8
curve 931:24

customer 636:25
642:21 645:13 655:8
657:18 658:2, 3 659:1
687:20 742:6, 9, 12, 14,
15, 19 756:16, 18
757:10, 13 759:20, 23
762:11 763:16, 18
771:7 775:14 784:12,
21 785:16 787:4
799:20 848:14 866:9
873:17 877:5, 11
881:10, 24 938:9
940:20
customers 639:10
640:9, 18, 19 641:5, 7,
11 643:3, 7, 7, 10, 14, 18,
25 644:9, 11, 22 645:3,
10, 17, 19, 21, 24 646:1,
2, 3, 5, 14, 25 647:1
653:25 655:25, 25
656:5, 10, 13, 14, 17, 19
657:3, 3, 19, 23 658:5, 6
659:14 660:3, 3 661:2
662:17 687:18, 18, 25
688:3, 5, 6, 25 775:12,
18 776:24 777:5 779:7
785:17 799:22 814:2
823:10 848:20, 25, 25
849:4 874:7 876:21
877:15, 16 881:18, 19
882:6, 14 913:13
931:14 940:23 944:4
947:8
customer's 659:12
Cut 695:6 696:8, 20
716:5 718:6 756:12, 23
775:5, 16 880:17
884:23 917:21 918:5
Cuts 695:4 815:2
826:16 880:21 882:2,
11, 11 884:11

< D >

D.C 815:20
DAKOTA 626:1 627:3,
4, 8, 18 628:8, 13, 19
629:5, 7, 17 640:3
675:18, 23 684:9 686:3
699:13 702:10 716:13
769:12, 18, 22 773:7, 12
775:18 776:24 793:15
814:2 831:3 833:9
835:18 836:21 837:18
848:18 855:24 856:1
859:11 866:15, 16, 18
867:1 877:16 896:14
899:16, 17, 25 900:1
907:2 908:15, 15 914:6

917:17 937:13, 23, 24
940:12 945:10 946:25
960:10
Dakota-based 954:9
Dakota's 686:8, 14
771:18 931:14
damage 798:10 839:4,
5, 15 841:14, 14
dangerous 921:9
dangers 957:14
Dante 632:5 739:16, 19,
23 740:7
D-a-n-t-e 739:19
Darras 634:1 828:18
885:17, 18, 24 886:10
888:18 891:13 893:1, 9,
18 897:4 899:8 900:11,
17 926:10 933:19
934:11 935:17 936:1, 7,
20 937:20 951:21
Darras's 792:9 793:8
data 652:10, 12 749:23
753:12, 25 763:24
764:16 775:3 786:16
793:6 796:13 813:23
839:12 847:6, 23, 24
853:25 854:18, 19
861:18 862:15, 17
870:25 872:5 878:15
885:25 891:15, 16, 24
892:4, 6, 19 899:1, 2
906:11 908:20 909:11
919:21 920:20 921:14
922:2, 12, 24 923:9
924:1, 4, 6, 8 930:17
933:19 936:10, 11
941:24
database 920:6
date 681:25 692:7
695:16, 17 918:5
920:10
dated 689:22 902:22
962:14
day 635:4 645:17
853:16 882:13 907:19
911:2, 17 933:1, 12
948:1 952:6 962:10
days 744:1 753:2
812:10 868:5 871:6
899:10 927:7 928:25
929:1 933:15, 20
937:14 941:14 942:7
943:9 956:7, 16 957:2
959:16 960:7, 8
DCF 693:21, 24 695:24
696:18 697:18 703:13
704:19 719:24 724:17,
18, 23 727:20 729:6, 6,

20 730:18, 20 735:10,
17
deal 799:16 852:25
913:15 952:3 957:15
dealing 929:18
deals 859:9
dealt 655:18
debt 681:24 688:9
715:3, 4
decade 716:19
decades 832:21 923:20
929:10 931:12 953:2
December 637:3 666:3,
4, 24 682:1 695:7, 13,
23 696:15 707:3
767:19 861:7
deceptive 689:20
decide 916:8
decided 709:25 816:9,
18 817:9 948:25
decision 687:10 729:4
738:4 758:2 780:14
801:9 833:23 855:20
925:15 947:3 952:1
955:3 956:1, 12, 14
decisions 638:10
685:23 804:2 938:2
951:11 956:23
decline 695:19
decrease 641:2, 8
825:15 882:18
decreased 696:13
decreases 695:23
696:18
deduction 748:18
796:17
deeper 916:24
defer 835:6
deferred 826:12
deficiency 636:22
638:25 950:20
defined 682:14 801:20
809:6 823:17, 19
definitely 905:17
degree 637:18, 19
degrees 937:2
delay 944:5, 6
delivery 655:8 657:8
664:4, 9
demand 644:12 669:17
demands 640:19
645:17 652:20 669:17
demonstrate 889:11
demonstration 838:19
denominator 696:1, 1
704:11, 13, 14
dental 746:13 857:13,

21 858:1
deny 883:14
depart 701:3
Department 716:21
916:2 930:15 938:20
952:13
departure 701:1
departures 701:12
Depending 661:24
700:20 826:6
depends 694:16 842:5
870:16
depreciation 747:8
802:5
Dept 629:6, 16
describe 690:2 837:22
849:17 892:9
described 893:15
describing 676:7
deserves 710:1
design 638:16 643:9
645:19 646:8, 13, 19, 21,
23 647:6, 8, 11 655:6,
11, 19 656:7, 21, 23, 25
738:11, 17 793:12
805:22 940:16
designation 637:22
designed 818:19
839:24
designing 643:13
designs 645:4, 14
despite 689:1
detail 708:20 726:6
778:20, 21 780:18, 20
855:16, 17 895:3
details 956:6
detected 844:16 903:14
determination 653:7
795:11 798:9 805:12
842:7
determinations 795:13
determine 742:23
761:25 775:25 776:9,
23, 25 777:8 780:16
792:14 800:9 801:25
823:8 839:19 850:25
871:18 877:13 911:21
926:15 930:8, 25 931:6
937:5
determined 648:7
757:12 792:5 894:8
926:19 936:13
determines 777:3
930:23
determining 646:3
684:17 841:20 937:10,
18 938:14

detriment 646:24 657:13 detrimental 663:15 665:9 detrimentally 683:25 detriments 655:22 develop 838:14, 18, 21 852:7 932:8 developed 698:19 830:12, 14 developing 699:24 838:15 development 716:20 developments 722:15 develops 844:21 deviate 700:22 dictate 823:25 824:25 diem 868:14 difference 694:8 699:2 706:12, 24, 25 722:7, 9, 11 725:20 726:18, 20 727:2, 10, 25 728:9 730:9 744:25 820:20 821:6 864:9 923:2 926:24 differences 694:18 different 639:18 642:4 674:12 689:15, 16 698:5 699:7 701:24 702:14 716:17 725:11, 11 728:7, 8 729:22 730:2, 14 731:22 733:10 735:5 766:5 770:3 789:3 811:8 821:23 822:7 824:18 826:7 828:9, 20 840:22 857:12 896:15 915:10, 11, 11 918:2 919:11 923:14 943:25 953:22 957:8 differently 727:6 difficult 772:14 897:20 939:25 dig 809:18 829:10 894:15 914:15 915:4 917:12 920:12 digging 809:13 845:14 913:7 dig-in 887:24 918:16 digits 694:17 diligence 915:25 916:5, 7 DIMP 838:11 840:13, 23, 24 841:2 843:2 889:6, 6, 8, 9, 9, 14, 18 890:20, 24 891:3, 4, 7, 9, 12, 16, 24 892:13, 13, 18 894:12 895:9 898:16	899:5, 11, 12, 15, 20, 20, 23 900:6 906:21, 22, 23 907:2 908:8, 12, 19, 25 909:12 910:12 911:15, 19 913:3 919:6, 18, 22 926:12, 14, 18 936:10 dipped 648:19 649:1 dire 852:5 887:1, 5 888:3 Direct 631:6, 19 632:6, 15 633:4, 10, 20, 23 634:2 636:7 642:25 643:4 645:2 647:21, 24 649:7 650:5 654:9 666:1, 4, 13 667:16 673:6 677:4, 5 691:6, 9 692:9 696:4 706:18, 18 709:3 727:14 740:5, 8 757:24 772:7 775:9 781:12, 13 798:2 842:12 846:12, 20 854:25 857:8 861:7 876:17 880:13 885:21 941:7 944:12 direction 637:9 953:23 directive 920:8, 12 directly 846:14 director 637:25 836:4 directors 770:16 871:24 938:1 disagree 728:15 730:6 848:16 895:22 907:20 disagreed 730:5 disagreement 653:19 697:10 721:19 929:1 disagreements 748:3 disallow 756:1 disallowance 758:24 774:14 936:5 938:7 disallowances 665:11, 13 disallowed 772:3 disallowing 742:10 756:5, 7 792:2 disappointing 936:16 disclosure 850:23 disconnect 821:8 909:19 disconnected 656:17 discounted 639:17 discover 852:18 discovery 764:17 discuss 726:5 879:10 discussed 744:24 745:17 826:14 871:24, 25 889:5 discussing 859:22	discussion 702:1 804:3 807:24 822:25 844:11 853:18 855:14 discussions 758:9 disinterested 700:4 dismiss 821:19 dismissed 822:13, 14 disparity 921:10 disproportionate 957:5 dispute 711:21 741:24 828:23 938:5 disputed 803:20 disputing 734:12 disseminated 652:22 distinct 701:1 distinction 672:4, 5, 10 distinguish 723:9 790:19 distinguishment 872:10 distributed 641:21 distribution 644:8, 11, 21 645:3, 10, 15, 20, 22 646:3 709:24 755:5, 18 766:17 788:2 836:10 837:3, 7, 9, 17 838:5, 9, 19, 20 839:25 844:10 915:6 distributions 717:11 diversity 671:21 682:15 684:4, 7, 9, 14 divide 788:19 789:11 dividend 668:13, 21, 21 695:25 696:2, 3 698:20, 22 702:20, 23 706:16 727:22 742:18 785:5 dividends 669:3 706:15 729:11 division 638:1 663:13, 16, 20 702:10 divisive 951:9, 25 DMSUR-1 783:10 DMSUR-17 787:23 docket 733:14 docketed 959:13 Doctor 710:7 739:12 Doctrine 793:11, 16, 24 document 723:8 751:19 763:10 849:10, 18 852:24 853:5 854:10, 13, 14 870:24 871:4, 10 872:9 879:5 902:10 documentation 785:18, 19 850:24 853:14 862:13, 25 894:19, 19 921:19 documented 929:9	documents 637:8 719:7 752:10, 10 765:1 772:19 774:19 780:12 795:15 851:18 852:2, 10, 21 855:7 858:7 872:1 914:4 915:2 dog 729:17 doing 643:20 651:11 692:15 693:21, 22 696:7 718:11 719:11 728:10 729:9, 10 734:20 735:23 759:16 780:4 829:18 833:8 836:22 843:22 852:11 869:2 903:19 907:19 915:16, 17 920:9 921:22, 25 922:5 931:25 932:17, 19 936:2 942:12 944:25 945:18, 19, 24 951:19 952:14 dollar 744:18 765:24 819:16 952:9 953:9 dollars 745:16 756:8 761:6 779:8, 13 789:1 848:24, 25 870:12 884:2 924:25 930:7 933:14 934:1 938:6 943:19 947:13 DOT 906:15 double 692:4 713:13 745:15 813:11 double-edged 854:6 doubt 821:12 852:9 933:10 doubting 896:7 downgraded 723:5 919:2 downs 746:3 857:22 downtown 897:11 909:10 downturn 668:2 downward 703:8 dozen 666:23 Dr 631:18 650:8, 15 651:4 654:1, 5 670:25 675:1 686:12 690:19, 25 691:8, 8 697:11, 16 698:10, 16 699:1 700:6, 12 704:3 705:12, 19 706:11, 20 707:8 708:7, 19, 25 710:15, 15 712:14 721:8 722:1, 9 726:4, 12 727:4 728:3, 10 729:24 730:1 731:11 733:20 734:19 735:4, 6, 24 736:24 745:4 761:3, 9, 9, 12, 15,
--	--	---	---

19 765:21 767:1
792:19, 20 793:3 950:3,
10, 17
drafted 637:8
dramatically 668:6
Drazen-Brubaker 638:2
dresser 894:20, 24
904:21 905:2
Drive 628:7 630:17
driven 717:18, 19
drives 686:1
driving 687:9 769:19
drop 722:24 723:10
dual 876:20
due 775:16 915:25
916:5, 6 937:1 958:19
dues 751:12 753:7, 8,
13, 14, 16 764:25 775:4,
5 776:11 777:3 781:5
Duff 671:14
duly 636:1 691:1
739:24 797:22 835:2

< E >

eager 667:19
earlier 703:7 733:7
734:9 881:22 882:9
903:18 914:25 941:1,
17
early 666:8 718:8
827:2 891:10 893:20
894:3 898:24 899:5
917:3, 4, 6, 8 924:7, 9
925:7, 9, 20, 23 935:22
948:17
earn 662:10 671:8
704:24 748:19 749:1
884:4, 8, 10
earning 704:18 751:5
881:22
earnings 661:13 669:3
717:15 718:3, 4 742:18
757:6 784:4 785:3, 5,
15 870:10 873:13, 13,
14 883:22 948:8
ears 928:11
easiest 708:19 880:25
East 628:18 835:17
easy 871:9 940:23
ECAPM 708:21 728:24
729:1, 1, 3 730:4, 13
economic 643:10, 14
687:14 716:6
economy 716:9, 13
717:5 746:3
education 637:17
effect 643:21 646:21
650:20 656:13 657:17

658:23 662:4, 5 699:2
730:15 744:13 760:19
761:8 816:21 817:14
820:8, 14, 15
effected 780:17
effective 643:10, 24
840:1 942:10
effectively 664:9
665:13
effectiveness 840:5
effects 703:18 882:1
efficiency 657:15, 16
775:15, 20 777:12, 14
856:13
efficient 671:19 848:19
effort 911:20 953:13
efforts 725:8 947:24
955:20
eight 693:18 700:20
702:3 714:25 866:11,
14 890:6, 8
either 670:7 671:4
695:22 700:25 714:14
724:12 728:2 736:11
807:16 844:17 894:23
930:5, 5 933:24
Eldridge 892:16 911:8
912:1 914:16 935:25
electric 638:10 664:15
675:18, 23 677:12, 14,
22, 23 678:8 689:5
695:8 758:3 771:18
800:1 803:15, 18 804:6,
12 811:20 812:18, 20,
22 813:1, 6, 14, 18
831:4 876:21 922:21
electrical 637:18
electronic 913:25
element 841:19
elevated 672:25 816:7
elevating 919:13
elevators 955:10
eliminated 918:3
eliminating 658:24
811:18
Elizabethtown 693:5
Elkton 692:25 693:3
embedded 772:10
employed 636:13
798:4, 5
employee 748:16, 17,
18, 23 749:25 756:4
762:18 764:22 770:22
786:12, 18 803:9 804:2,
3, 5 827:9 868:16, 20,
22 870:23 938:6
employees 742:8, 23
743:7 744:14 756:18,

19 762:2 763:11
768:24 784:11 785:20
786:7, 17 787:12
848:14, 23 849:1
859:12 870:21 874:2
938:8 942:14
employee's 756:11
encasement 917:24
ended 897:13, 22, 23
ends 817:9
energy 657:15, 16
702:2 705:4 711:2
712:4, 7, 10 713:1, 10
775:15, 19 777:12, 14
930:15 952:13
Energy's 711:3
enforcement 798:10
engaged 956:8
engineer 937:2
engineering 637:19
936:12 937:7
engineers 792:13
ENSTAR 709:23
ensure 636:25 664:6
812:8 836:20 930:2
936:15
ensuring 954:7
entered 650:12
enterprise 663:20, 22
664:10 684:11
enterprises 683:9
entire 681:8 756:7
762:21 811:4, 18 812:4
824:15 829:1 870:13
881:5 906:6 910:9
914:9 929:6
entity 769:10
entry 772:16
environment 684:19, 20
685:6, 10, 20 960:10
equal 696:3 715:12
789:9 815:8 884:9
equation 695:25 698:5,
19 728:3, 6
equipment 746:18
789:19 839:6
equitable 940:19
equity 639:2, 4, 6, 10,
14, 16, 23 640:6, 10
647:20 648:2, 5, 14, 19,
22, 25 649:1 651:17
660:6 663:8 664:25
665:7, 8, 16 670:13, 25
673:4, 15, 16, 22, 23
674:19 675:23 676:5
677:19 685:2, 11, 23, 25
695:11, 15 697:24
698:3, 18, 21, 24 704:15

714:13, 17, 20 715:1, 2
719:13 721:21, 23, 24
722:3 723:19 745:1, 7,
11 938:22 949:25
950:6, 12
era 945:15
error 744:2, 5 747:8
748:8, 12
escalation 782:3
escape 896:18
especially 693:18
739:7 746:13 914:6
Esq 628:5, 15 629:3,
14 630:5, 15 962:10
essence 706:10
Essentially 674:10
864:24
establish 676:15
805:19
established 881:3
estimate 652:19 667:8
752:11 839:20 924:15,
24, 24 934:15
estimated 651:16
782:12, 15 826:19
estimates 729:19, 23
782:16
et 852:25
evacuate 897:5
evacuated 898:3
evacuating 897:23
evaluate 692:15 699:21
717:1 762:13 768:21
777:6, 7 780:21 831:2
839:19 840:4 867:21
890:21 891:20, 24
893:11, 12 904:9 916:5
921:21 949:10
evaluated 791:16
792:5 800:23 842:6
944:24
evaluating 759:4
802:11 890:25 891:20,
24 892:19 923:23
evaluation 699:22
777:8 840:8 900:6
evaluations 667:17
780:16 898:16
evenly 789:13
EVENSON 628:8
event 935:1
events 707:5
eventually 656:18
791:12
everybody 858:8
933:16 934:19 960:8,
11

everybody's 909:22
956:5, 8
everyone's 955:20
958:6
everything's 900:2
evidence 639:22
670:19 768:20, 21
776:5 778:20 825:2
846:17 869:22 870:5
910:4 928:2 939:12, 15
941:5, 7 944:19 945:7,
9, 9 949:7, 14 956:1
evidentiary 941:2
evolves 931:8
EVPP 904:12
EVSP 904:12
exact 771:17 871:17
909:10
exactly 714:13 718:20
803:13 811:24 816:9,
18 874:4 882:16
883:15 888:5 909:19
Examination 631:6, 9,
10, 11, 12, 15, 19, 23, 24,
25 632:1, 6, 8, 9, 10, 15,
18, 19, 20, 21 633:3, 4, 5,
6, 10, 13, 14, 15, 20, 23,
24 634:2, 5, 6, 7, 8
636:7 663:1 665:24
667:13 672:21 689:11
691:6 715:23 720:4
721:5 726:2 740:5
778:9 781:2 783:20
798:2 808:24 812:15
817:25 825:12 835:23
842:25 843:10 844:7
846:12 865:16 867:18
869:19 876:17 880:13
883:7 885:21 916:14
918:21 926:8 940:12
examined 636:1 691:1
739:24 797:22 835:2
example 718:21 724:18
773:21 781:19 819:23
820:1, 11 821:13
828:19, 19 851:6 866:9,
12 870:10 877:6 891:2
915:21 943:24 948:16
examples 849:24
861:23 943:22
excavation 839:4, 15
886:19 887:16
exceed 705:3 760:1
844:13 856:7, 8 870:9,
18
exceeded 860:12
864:18 865:6 873:10
excellent 959:24

exception 650:9 941:4
950:9
exceptions 856:12
excess 826:12 881:16
excessive 637:1
829:19, 21
exchanged 871:1
exclude 771:22, 23
excluded 650:11
excludes 886:18
excluding 693:8 757:8
exclusion 650:19
excuse 693:24 724:24
727:21 732:11 764:11
858:24 890:15 894:6
executed 743:5, 6
762:14
EXECUTIVE 630:13
636:17 742:18 757:9, 9
770:16 784:3, 15, 17
785:12 858:15 939:10
940:21
executives 742:7
756:19 792:13 858:20,
21, 23, 24 859:12
Exhibit 637:5, 6 641:22,
25 678:21 679:10
682:5, 11 692:2 700:11
709:4 731:2, 17 749:11,
22 750:1, 9, 12, 15
798:22, 25 804:10
805:10 806:14 808:5,
13 813:20 847:14
849:10, 18 850:5, 20
853:2, 19 854:9, 12, 18,
22 863:20 864:4 873:5
878:21, 24 879:2 884:9
886:10, 24 888:9 890:7
891:3 892:12 894:16
904:14 908:18 958:11,
21 959:9, 11
exhibits 637:5, 11
691:10 692:6 697:18
740:25 741:5, 6 753:20
854:4 879:11 881:8
958:10 959:8 961:12
exist 823:21 863:4
existed 807:7 871:4
Existing 918:14
expect 711:8 803:4
811:15 824:8
expectations 671:24
expected 668:23 765:1
793:23 796:24
expecting 767:24
expenditure 946:3
expenditures 812:8

expense 697:20, 21, 25
698:1, 15 714:2 721:20
744:8, 22, 23, 23 747:8
751:14, 18 752:3 760:3,
4 805:21 846:21
881:14 883:21, 23
884:7
expenses 698:21
721:23, 24 747:17
751:15 757:4, 16
759:14 772:12, 13, 14
774:5 781:22, 24
782:19 785:3 794:22
795:9 847:5 857:9, 20
858:3 868:17 938:8
939:24 947:12
experience 637:17
638:8 651:10 655:9
660:11, 14 661:17
664:14, 16 695:21
796:11 802:10, 18
839:16 894:8 895:23
898:11 916:21, 25
921:17
experienced 658:16
experiment 696:14
expert 644:17 679:18
680:11 785:23 803:5
831:8 888:20 894:12
909:9 921:13, 21
934:23
expertise 739:4 761:9
824:10, 11 895:10
935:11
experts 726:8 802:24
810:21 837:13 922:25
923:4, 6 931:8 959:24
960:3
explain 645:8 650:25
674:2 697:14 701:23
704:1, 24 750:12, 15
753:6 790:18 801:3
818:4, 5 836:6 848:17
850:11 894:5, 6 896:12
897:8 910:18, 18 911:2
explained 691:13
727:8 730:22 748:2
770:22 854:25 936:1
explains 814:5
explanations 752:7
explosion 935:1
expressed 921:8
expressing 729:14
expressly 852:3
extensive 638:8
extent 656:12 668:20
868:18 883:22 915:9
external 665:11

extra 719:18 731:19
745:16 820:24 841:19
extraordinary 659:16
eyes 928:11

< F >
facilities 801:21
facility 809:20 810:2
909:15
fact 655:7 663:12
673:12 680:5 689:14
704:20 709:20 713:11
732:3 764:1 804:11
817:8, 8, 12 827:6
869:1, 22 881:21, 22
891:16 894:20 931:23
932:25 949:13 953:23,
25 956:12
factor 649:5 653:5, 8,
13 670:10 672:11, 13,
14 676:9 684:17, 18
694:10, 15 697:2, 17
719:19 723:19 725:19
738:5 746:6 755:5
772:5 779:20 796:22
906:24 925:17 926:15
934:2 950:15
factors 653:3 662:13,
17 664:8 665:11
699:23 701:16 779:23
919:17 937:21 950:22
facts 703:4
FAE 631:4
Fahn 633:2 834:22
835:1, 13 845:23, 23
888:25 889:15 890:20
891:14 892:2, 22
898:14 899:9 909:17
910:1 914:25 937:20
Fahn's 889:5, 10 890:5
891:22 893:9
fail 786:7 933:1
failed 895:18 917:19
918:8 936:21 941:23
failure 839:6, 25 917:5
fair 639:7, 16, 23 640:7
653:7 662:11 670:3, 25
673:3 688:23 694:22
735:9 736:16 778:20
779:4 785:24 806:1, 2
810:18 811:24 814:18
829:22 851:21 861:17
876:3 923:25 949:10
fairly 639:11
Fairview 892:15 935:25
fall 719:8, 9 724:12
780:15 844:16 887:14

fallback 722:2
false 685:8
familiar 791:4 793:11
fantastic 959:20
far 769:21 849:25
857:24 905:21 919:12
951:15 959:7
fashion 954:22
fast 669:2
faster 955:12
fault 941:19
favor 811:22, 23
821:25 827:20
FEA 635:18 637:5, 5
949:23 950:21
FEA-29 641:25
fear 871:16 890:2
896:7 897:3
February 689:23
711:19 773:22 899:10,
13
FEDERAL 630:13
636:17 773:19 818:21,
24 836:24 838:13
939:10 940:21
Fedorchak 631:11, 25
632:10, 20 633:3, 15
642:1 667:11, 14
672:16 684:3 703:6
721:3, 7 725:23 783:18,
21 788:21, 24 789:24
817:1, 21, 22 818:1, 11
825:4 834:18 835:7, 20,
24 842:9 869:15, 16, 20
872:11 873:1, 21 885:9,
10 911:14 926:1, 2
956:3, 4
Fedorchak's 676:14
fee 657:13 765:10
802:23 830:23, 25
932:14
feedback 871:21
feel 640:19 761:24
792:12 833:10 869:25
895:6, 8 898:12 921:22,
25 923:11 957:11
feels 868:18 906:17
fees 799:19, 19
feet 915:13
fell 667:6
felt 896:8 909:14
field 836:22 895:6
896:3, 8 912:11 913:9
920:12, 15 922:25
fields 716:21, 24 717:4
fight 729:18
figuratively 809:14

Figure 647:23 753:3
822:9 823:8 824:14, 20
845:4 847:5 945:20, 21
947:2 957:21
file 660:21 661:16
803:4 830:18 879:1
891:3 912:12 929:24
941:12 947:1
filed 650:16 666:3, 4, 8,
24 691:25 692:11, 20,
24 706:18, 18 765:10
767:14, 16 772:23
773:18, 25 782:9
783:15, 15 796:25
798:15 802:22 816:2
825:18 861:7 891:3
940:4 941:7, 8, 9, 13
944:12 958:22
files 774:24 912:13
914:1
filing 692:7 765:10
782:10 783:9, 11
796:15 800:5, 11, 19
802:23 803:6 807:22
825:19 830:23, 25
832:1 882:14 932:14
961:12
filings 661:10 807:8
831:3
fill 855:1, 12, 17 888:1
913:4
filled 855:16 894:23
final 637:24 898:14
953:8
finally 706:14 800:18
840:7, 7 885:16 899:8
931:3 940:16 959:14
finance 637:20 698:9
financial 637:22 638:1,
12, 17 639:8, 12 640:8
650:20 652:13, 16
653:15 665:6 667:23
687:17 688:6, 23 714:3
718:24 737:21 877:11
940:14
find 652:15 660:25
671:16 685:24 688:17,
20 689:24 697:16
701:6 714:7, 24 719:7
724:20 748:12 770:19
774:25 781:14 843:19
844:25 845:3 851:24
855:8 863:25 894:15
910:5 911:21 912:7
915:18 921:9, 15 922:9
932:10, 18 942:4
957:25
finding 840:18

Findings 804:11
960:21, 22
finds 659:25 671:9
896:21
fine 755:14, 15 770:4
790:16 819:13 833:11
858:7 859:2 873:13
879:20 900:1
firm 638:3, 3 643:14
first 635:21, 21 668:19
690:18, 19 691:18
692:2, 3 700:9 717:20
737:20, 23 739:18
787:25 799:17 804:9
812:22 825:14, 18
836:6 838:18 846:5
867:21 869:9 885:23
894:11 902:6, 15 924:5
928:23 932:22 944:10
945:17, 20 953:17
959:17
fit 841:22
fits 864:7
fitting 895:17 917:22
918:1 921:17
fittings 894:21 918:1
922:3, 9
five 666:19 668:7, 10,
15 678:12, 17, 18
700:25 710:17 727:16
782:5 852:12 860:18
868:4, 4 879:21 880:2,
3 893:10 910:7, 10, 16
912:21 922:20
five-year 922:23
fix 918:3
fixed 640:15, 17, 21
646:13, 20 647:12
655:16, 19 656:1, 12, 22
657:24 663:22 919:4
940:17, 18
flat 655:8 657:13
flight 768:9 870:24
flights 747:20, 20
849:21 852:15 854:19
855:22 943:15
Florida 630:18 673:17
684:23 685:5, 19
686:19, 21 896:16
flotation 653:21, 23
654:2, 3, 6 674:2, 5, 9
694:10, 12, 15, 20
697:12, 15, 17, 19 699:1
713:22, 22 714:11, 23
719:18, 19 721:9, 17, 19
722:1 726:6, 16 727:5,
23 728:2, 10, 11, 18

flow 639:18 696:10
flown 861:2
flows 738:1
fluctuations 940:22
fluid 943:14
flush 851:7
fly 768:9
flying 768:17
focus 791:22 823:13
841:1 866:16 911:4
923:14 949:24
focused 638:20
focusing 678:1 766:22
767:11 909:22 921:6
folks 856:13, 19 895:5
898:8 909:12 920:15
921:23
follow 672:23 703:7, 9,
11 705:22 731:11
754:25 815:13 926:4
949:14
followed 698:5 716:13
815:11
following 837:19
892:18 899:19, 22
follows 636:1 645:25
691:1 739:24 797:22
835:2
follow-up 726:4 728:22
foot 896:13
Force 630:18 831:12
839:5 938:15 945:25
forces 839:4
forcing 678:4
Forecast 652:13 731:1
forecasted 703:9
forecasts 716:10 730:7
731:3
foregoing 962:7
foreman 897:19
forget 686:13 695:16
702:4 847:17 861:3
877:9
forgot 817:5 878:13
893:18
form 849:22 855:12, 15
888:2
forming 650:1 680:12
855:18
forms 638:10 747:22
formula 722:20 757:21
785:22, 22
formulate 830:1, 3
850:16
formulating 892:20
forth 704:22 705:8
718:25 719:5 728:8
747:23 769:15 770:15

888:25 933:18 936:24
955:6
fortunate 960:9
fortunately 843:14
897:3
forward 693:14 743:19
782:23 796:22 833:1
901:4, 9 902:24 907:15
918:13 931:15 932:2
935:17 936:25 945:25
946:1 947:4 952:23
953:3, 14 957:22, 23, 24
958:1, 3, 4
forward-looking 701:18
found 640:4, 24 641:1,
13 650:23 651:4, 19
654:14 655:14 662:8,
11 665:4 667:8 727:20
728:13 732:22 782:20
787:16 825:9 840:3
887:25
foundation 679:14
680:24 681:1 739:2
850:23 851:3, 4, 10
852:2, 10, 19 853:12
888:3 896:24
foundations 738:22
four 661:10 668:14
678:21, 23 696:16
781:25 798:14 875:6,
14, 17, 22 894:1 908:14,
14, 22 921:2 922:20, 22
926:25 936:4
four-month 695:22
697:7
four-state 899:15
fourth 720:22 737:19
four-week 695:14
frame 716:5 803:3
framing 718:19
franchise 653:11
Frankly 959:25
free 730:5
frequency 661:5
Friday 626:16 627:2
960:13
friend 928:15
friendly 685:21
front 700:7 731:17
804:8 826:23 828:8
852:6 902:1 904:16
932:2, 4 935:4 936:4
frost 896:14 916:24
full 658:15 661:6
718:18 787:11 788:17
811:13, 15 859:21
909:6

fully 664:1 752:18
functions 743:8 764:23
fund 831:7 876:20
fundamental 946:24
funds 738:22 930:2
furious 871:5
further 654:18 675:6
686:23 712:14 728:22
736:25 739:9 743:23
748:2 777:22 795:22
807:1 810:24 833:11
846:1 856:24 872:13
877:19 882:21 900:12
910:4 927:2 951:20
future 744:12 767:14
791:23 793:12 795:4
796:11, 12, 18 805:21
812:19 921:24 930:2
940:4, 7 942:25 943:11,
20 945:3 952:3

< G >
gain 771:5
gains 771:10, 23 948:19
game 659:6
gap 959:8, 10
Gas 626:6 635:5
638:11 647:9 649:8, 15,
21 650:13 655:8
658:12 663:13, 16, 20,
22 664:1, 1, 4, 7, 9, 15
676:19 677:4, 10, 11, 12,
15, 22, 22, 23 678:2, 3, 7,
8, 24 684:9 689:5, 16
692:25 693:5, 19 695:9
699:13 702:10 706:7,
12, 24 709:14, 23 712:3,
7, 10 713:1, 10 731:24,
25 732:12 733:3
741:20 753:23 754:8
755:4, 7, 11, 18 766:12,
12 769:14 775:12, 17
777:13 787:21 792:14
800:3, 4, 18 801:15
804:6 813:6, 8, 10, 13,
18 814:2 831:3 836:10
837:3, 3, 8, 16 838:9
839:25 844:10 855:24
856:1 866:4, 6, 16
867:1, 6 876:21 877:16
893:2, 4 895:21 897:6
908:6, 10 910:2, 3
919:10 922:21 929:7
936:7 937:3 939:3
942:2 943:22, 23
951:23
Gaske 650:15 654:1
670:25 671:3 672:25

675:1 697:11, 16
698:16 704:3 706:11
713:9 727:4 728:11
729:24 735:4, 6 950:10
Gaske's 650:8 651:4
686:12 699:2 700:7, 12
706:20 708:7 709:1
710:15, 15 719:16
722:1, 9 726:12 728:3
Gas's 827:5
gather 696:24 752:17
922:24 923:9
gathered 930:13
GDP 654:12, 12
General 629:4 663:12
680:1 716:8 719:10
736:14 746:6 752:6
838:17 856:14 957:6
generality 895:4
generally 646:9 651:17
656:20 658:1 661:8
671:16 673:14 698:14
716:9 801:20 802:23
856:10, 19 866:19
890:9, 10
generation 952:3
generic 917:7
geographic 645:18
671:21
getting 705:5 764:23
773:5 775:14, 22
777:18 785:3 800:18
809:4 819:9 822:5
864:20 866:13 879:16
903:23 909:11 919:21
949:15
GIS 906:9 912:23
914:3
give 637:16 638:21
661:17 670:9, 12 681:6
682:6 698:17 754:1
785:4 787:17 809:10
810:19 819:25 820:10,
25 830:24 831:1
838:16 898:9 923:17
926:4 927:20, 25
957:12
given 689:14 699:24
701:6 704:12 871:4
gives 643:9 685:11
701:14 755:18 789:2
811:12 835:10
giving 643:21 685:7
766:7, 9, 23 767:2, 4
801:7
Gladstone 892:15
935:25

Glasgow 911:7
Glen 919:11, 20, 22
go 638:23 668:7
670:17 679:13 690:11
694:17 695:2, 10, 14
699:21 700:19, 20
703:13, 22 707:25
711:6 714:19 715:9
718:21 719:6 727:13
729:11, 17 736:11
737:18 738:11 741:2, 4,
6 746:4, 4 747:23
749:16 754:11 756:17
765:1, 3, 4, 19 769:2, 5,
15 772:18 781:24
782:5 783:1 788:22
797:10, 12 800:15
802:9 807:13 816:9
817:4 820:24 829:10
832:20 835:12 839:11
846:9 854:25 856:22
858:8 859:24 866:9
867:24 884:7 887:4
893:17 896:15, 19
901:20 902:7 904:4
905:24 907:1 911:20
912:11 913:6 915:1
918:4 922:18 923:13
924:1, 19, 20 938:4, 8
944:7, 22 945:16
947:20 948:14 949:1
951:15 956:12
goal 687:10 786:19, 19
836:19 848:13 873:11,
14, 17 952:16
goals 742:5, 6, 8, 9, 16
743:5, 9, 17 756:17
757:5, 12, 13 762:7
870:16, 17, 19 889:14
goes 681:23 699:24
714:25 760:6 785:13,
14 867:5 953:9 957:20
960:4
going 651:16 655:4, 24
656:4, 19 657:13 681:2,
11 682:4 693:15, 16
696:9, 14 698:17
699:21 701:9 702:5, 23
703:13, 18, 21 704:10,
18, 24 705:4 708:6
711:6 715:10, 25 716:3
718:1 724:8 725:6
726:24 737:17, 18
741:2 744:10 749:13
752:9 754:17 766:2
768:15 771:22 778:13
782:5, 23 786:23, 25
787:1 789:12 792:16

794:3, 9, 10, 15 796:23,
24 804:8, 20 807:8, 13
808:2, 10 810:6 813:15
814:1, 11 817:12
821:11 824:7 832:13
834:13 840:22 842:11
845:4, 14 849:23
850:11, 13 851:3
852:23 853:5 854:13
856:10, 20, 21 857:5, 16
858:10, 13 866:8, 19, 21
871:1, 2 877:25 881:9,
13 884:18 888:9 896:7
901:9 906:6 907:15
912:25 913:1 915:7, 18
916:21 917:16 918:13,
15 919:18 921:15
922:18 923:5, 17 925:1
926:12 927:19 928:18
930:19, 25 932:25
933:13 941:16 943:13,
17 944:5 946:1, 4
947:20 948:14 951:22
955:9, 17, 23, 25 961:10
Good 642:11 655:2, 3
669:20 672:2, 3 686:16
693:17 705:3, 19
712:22, 23 717:20
722:2 725:10, 23
730:16, 23 742:13
754:24 776:25 782:1,
23 802:3 806:12 809:1,
2, 5, 21 832:9 833:23
836:1 841:25 843:17
845:9 852:16, 16 879:8
882:20 885:23 906:17
933:23 946:19 950:8
954:24 955:8 959:24
961:5
Gorman 631:5 635:19,
20, 25 636:9, 11 637:2
641:17 642:11, 14
644:6 646:6 647:18
649:24 652:4 654:9, 17
655:2 675:13 678:2
679:17 681:18, 22
682:11 686:22 687:6
690:7 694:2, 5 697:11
699:20 701:17 702:21
710:7, 9 719:2 721:10
724:13, 16 725:10
726:13, 15 729:24
735:5, 5, 19 950:4, 6, 13,
17
Gorman's 661:16
694:9, 21 706:21
722:11 736:5

gotten 895:3 935:16
government 818:21, 25
governor 770:9
grade 718:18 720:6, 17
gradual 636:24 640:25
gradualistic 641:10
grant 819:11 942:1
granted 732:15 736:4
943:13 945:4
graph 647:23 673:7
great 639:13 717:7
799:16 830:5, 7 912:23,
23 945:1 947:16
957:18 958:7 959:21
960:9, 11
greater 671:17 877:6
949:16
greatly 954:3
Griffing 631:18 654:5
690:16, 17, 20, 20, 25
691:8, 9 705:12, 19
707:8 708:20 712:14
721:8 726:4 730:1
731:11 733:20 734:19
735:24 736:24 745:4
761:3, 12, 20 950:3, 17
G-r-i-f-f-i-n-g 690:21
Griffing's 666:1, 7
761:9, 15
ground 809:22 811:6
824:5 913:7 917:12, 22
918:15 946:17
grounds 850:17
group 650:2, 18, 21, 24
651:1, 4, 5, 6, 13, 15, 17,
22 670:24 673:3, 5
678:14 680:3 683:1, 5,
11 693:9, 20 695:12
706:17, 20, 21, 21 707:9,
13 710:2 719:3, 12
722:2, 4 723:4 724:13
729:8, 20 733:17
736:19, 21 775:9
866:12, 13 917:19
924:11 939:24 954:13
groups 701:20 726:21
733:17 950:17
growing 669:2
growth 668:25 669:3, 5,
6 698:22, 23 716:6, 8,
11 727:20 729:15, 19,
22
GTI 925:16 957:7
guess 635:21 685:19
725:3 741:1 744:10
804:17 810:19, 23
812:6 813:4 814:8
828:16 842:3 851:1

867:9 871:20 880:25
897:10 913:23 914:23
948:9 955:9
guessing 714:6 722:10
guide 698:8 705:9
guidelines 725:21
guiding 837:1
guys 682:6 928:9
959:19, 20

< H >

half 668:14 683:14, 14
705:8 788:11 789:21,
23 796:25 836:15, 16
908:18 921:3, 5 933:14
hall 835:19
hammer 773:22 781:19
hand 635:23 690:23
739:21 749:13 797:19
834:24
handbook 698:8
handed 749:21
handle 809:21 811:1
867:2
handled 786:23 919:1
handy 808:9
happen 703:15, 18, 21
796:24 844:1 925:24
happened 897:2, 9
happening 703:18
happens 726:7 796:15
820:13 881:5
happy 845:3
hard 867:22 871:13
954:23
harder 880:23
hardest 959:18
hazard 904:2 918:4, 25
hazardous 895:22
head 735:7 820:22
831:5 900:20
headed 730:25
heading 676:11
heads 878:22
healthy 949:15 954:8
hear 718:12 741:11
792:9 808:17 822:9
829:4 844:11 896:19
944:16 950:9
heard 699:7, 11 717:7
743:10 794:2 801:6, 8
803:8 809:8 810:14
828:4, 18, 21 829:15
831:18 846:16 848:12
851:6 862:24, 25
873:20 880:15 889:22
895:20 899:25 903:17
909:20 924:20 925:13

927:8 929:6 932:1
936:7 938:23 941:23
943:11, 22, 23 945:9
948:13 949:10 950:3, 4,
6, 13 951:21 956:20
HEARING 626:13
627:2, 14 636:16 637:5
691:22 740:11, 20
796:15 799:10 800:21
811:9, 15 832:1 862:2,
4 872:17 873:16 927:7
947:14 960:1 961:11,
15
hearings 956:8
Hebron 919:11
heed 957:12
height 859:14
held 937:24
help 750:12 764:9
781:15 837:14 920:5
helpful 785:25 786:2
871:16
helps 866:18
Hewitt 742:25 759:3
hey 934:20
hide 656:1
hiding 941:5, 21
high 648:6 665:5
673:16 685:22 688:7
701:2 894:25 905:18
921:10 924:15
higher 641:3 651:23
652:1 662:7 670:5, 9
678:12, 19, 25 684:25
685:2, 7, 11, 17 687:21
688:10, 12, 14 699:5
702:24 704:16 709:21
711:9, 24 712:11, 13
715:7 724:2, 8, 22, 24,
25 725:12 742:7 754:3,
12 756:19 819:11
873:9 874:15, 17 875:4
896:10 910:11 911:8
915:8 916:9 923:12
939:17 949:12
higher-end 742:7, 7
higher-lower 724:19
higher-pressure 898:13
highest 736:15 908:22
910:15, 17, 25 911:5
921:23 922:1
high-level 924:24
highly 938:15
hire 802:24 810:20
hired 831:8 922:17
Historic 782:23
historical 669:9 796:13
historically 849:3

history 807:24 839:13,
15 893:3 894:8 942:24,
25 943:2, 10, 19
hit 669:20 922:6
949:25
hold 917:23
home 813:6 835:14
868:4
honest 810:11
honestly 832:17 909:13
Honor 635:12 641:18
661:14 679:7 680:15,
18, 19 681:1 715:17
739:9 794:13 817:2
846:5, 10 847:10 849:6
852:18 876:10 880:8
955:16 958:20 959:6
961:6, 7, 9
Hope 687:14, 15
768:19, 22 814:16
832:22 882:19 914:2
934:16, 16 955:2, 11
958:6
hopefully 783:22 880:3
914:15 947:2 958:3
hopes 934:19
horizontal 700:18
horse 945:22
hospitality 951:1
hourly 860:23, 25
hours 849:11, 14
851:24 886:3 906:13
933:17 956:13
house 945:14, 16, 23
housekeeping 958:8
houses 826:25 827:4
housing 748:16, 18, 23
749:25 750:13, 16, 17,
20 770:23 771:18
803:9, 20 804:2, 3, 6
805:16 806:13, 14
811:7, 7, 18 812:17, 21
813:10, 25, 25 826:22
827:9 948:15, 16, 20
HR 785:23
human 938:20
hundred 698:12
hurt 664:25 725:8
hypothetically 735:24

<I>

ice 896:22
Idaho 769:3
idea 645:12 824:22
identified 651:22 674:7
752:4 792:3 890:5, 8,
12 891:8 892:14, 21
893:22, 22 894:20

901:6, 8 903:7, 11, 12
904:21 936:9 941:17
958:13
identifies 674:8
identify 645:13 674:19
692:6 721:11 749:21
828:9, 13, 14 838:23
839:9, 23 889:15, 19
892:6 894:23 905:14,
17, 24
identifying 674:15
841:17 892:19
ijs@nd.gov 629:19
Illinois 637:24, 25
932:19
Illona 629:14 872:21
911:15
imagine 718:7 871:6
immediate 904:2 918:4,
25
immediately 844:17, 19
904:6 954:13
Imminent 793:12, 16, 22,
24
impact 636:24 646:25
655:22 656:24 659:23
661:23 663:6 665:10
675:17 676:3, 4 692:16
695:4 717:4 718:7
800:2 880:17 916:20
impacted 645:23 646:1
684:1
impacts 644:25 653:8
657:2
implement 839:23
892:3, 4, 7, 21 932:24
933:24 935:9, 11
implementation 786:4
792:6 893:17
implemented 660:20
893:10 920:8, 23
922:23 923:22 933:6, 6
implementing 802:18
838:16 934:4
implication 941:22
imply 889:23
importance 839:20
important 670:15
684:4 687:8 722:18
777:12 779:3 799:17
812:7 817:6 822:9
930:20 946:22 953:21,
25 954:4, 10 955:20
importantly 934:25
937:20 940:2
imposing 656:13
impossible 873:19

improper 770:19 772:2
improperly 770:13
improve 883:22 898:22
900:6, 8
improved 659:1 957:25
improvement 765:25
821:24, 25 840:8
898:21 906:6 920:24
923:8 934:3
improvements 801:10
832:21 898:16
improving 663:17
785:15
imprudence 665:11
imprudent 830:3
inappropriate 853:21
Inc. 702:11
incentive 643:3 657:14
742:1, 3, 11, 17, 24
743:1, 3, 7, 11 744:3, 6,
11, 13, 15 755:21 756:1,
7, 11, 17 757:12 758:1,
6, 24 759:4, 7, 17 760:9
761:24 762:1, 22, 23, 25
764:2 778:18 779:8, 14
783:25 784:3, 6, 20
785:12, 19 786:5, 7, 24
787:6, 7, 11 799:20
807:12 808:6, 6 847:15,
19 848:11 858:16
859:6 861:12 863:19
869:22 870:13, 14
873:2, 3, 25 877:12
938:14 943:16 947:21,
22 948:3
incentives 643:7, 14
743:21 760:1, 2 858:18
859:13 860:6, 8, 13
864:11
incident 839:13 895:12
943:24
incidents 943:23
include 647:23 653:24
674:10, 18, 24 706:16
729:5, 8 741:18 749:2
751:17, 24 753:16
760:22, 24 761:4
766:16, 18 774:7, 16
780:7, 9 781:8 796:22
804:2 839:12 840:1
841:6 857:22 858:21,
23, 24 860:24 886:17
887:19 900:25 935:19
included 648:9 701:16
708:3 709:5 727:23
735:20 743:15 744:14
749:5 752:5 753:20
755:17 760:25 766:16

770:23 776:12 777:1
781:9 791:1, 5 793:24
810:9 857:12 935:18
includes 859:13
860:21 915:3 916:1
including 648:9 707:2
709:19 721:17 726:17,
17, 23 731:24 766:10
774:18 882:1 892:15
893:2 954:7, 7
inclusion 772:1
income 647:1 701:25
748:24, 24 751:4
771:10, 24 785:4
807:10 826:9, 19
incorrect 839:6
incorrectly 719:19
Increase 626:6 637:1
641:3, 4, 5, 6 642:21
643:18 656:2 660:22
695:7 703:24 716:11
725:15 741:15, 22
742:18, 18 746:5, 6
747:2 748:7 754:8
761:21 772:8, 9 773:3
785:4, 5 794:24 795:7
796:23 815:7 816:20
817:16 818:8, 12
819:12, 20 825:23
846:25 857:9 882:3, 5
942:1 948:7
increased 641:12
666:14, 18, 21 668:12
696:12 706:2 782:1, 19
950:11
increases 661:25
695:10 746:2, 11 782:3
846:22 857:25
increasing 656:15
668:8 757:7 782:24
785:2, 8 802:6
incredibly 953:21
incur 646:4 674:16
incurred 640:17 653:23,
25 656:18 663:25
674:20 688:1 698:21
714:14, 15 715:1
721:12
independent 670:20
671:2 676:9, 16 699:21
713:1 729:17 732:12
733:19 759:3 763:17
950:14
independently 733:1
indicate 667:15 805:18
846:24 922:12 923:13
941:23 959:11

indicated 645:1 673:7
684:16 744:2 775:9
779:2 847:1 888:20
929:16 939:20
indicates 683:22
694:25
indicating 667:18
683:20 899:21
indication 943:19
indicator 730:25 943:10
indirect 717:3
individual 648:21
682:19, 25 683:20
869:10 922:22
individuals 871:22
industrial 638:6
Industries 650:11
693:3, 9, 20 706:23, 25
726:24
industry 649:17 651:9,
13 670:23 671:16
672:12 673:8, 21
676:23 677:2 680:1
685:3 689:6 692:16
753:7, 8, 16 759:7
762:6 775:4, 5 776:11
777:3 874:3 931:23
934:18 937:16 938:18
952:12
industry-wide 953:3
inflated 943:8 944:4,
21 947:14
inflation 654:11, 12, 14
745:25 746:6 755:8, 11,
13, 16 772:1, 5, 9 773:3
778:17 779:23 781:23
782:7, 21 794:19, 20
796:10, 22, 24 797:1
846:15, 18 847:4
939:19, 22 940:1
948:12
inflationary 745:23
779:18, 20 781:21
794:23
information 652:5, 6, 9,
16, 18, 21 722:17 728:7,
11 729:12 735:15
736:6, 8, 10 747:10
748:10 749:24 752:17
758:8 764:5, 18 765:6
768:4, 12 773:18
774:21, 25 778:22
782:4 786:13 795:6
838:21 842:1 845:7
847:15 853:2, 15
855:10 859:25, 25
861:21 863:4, 25 871:1,
8, 18 878:1 886:4

887:22 905:7, 9 906:19,
20 913:1 914:21
920:10 930:13 943:14,
17 944:7, 8 952:14
955:21, 24 956:11
957:20, 20 958:12
960:15
informational 908:9
infrastructure 659:17
663:23 664:5 792:15
802:3 809:12 810:16
822:24 829:11 930:16
931:21 936:14 953:4
957:13
initial 803:6 897:19
initially 924:11
input 701:7 729:4
730:17 929:15
inputs 700:15 730:11,
22, 23 735:4, 6, 9
inspected 906:14
inspecting 840:14
inspection 908:12
inspections 836:22
843:19
inspectors 836:14, 15,
17 837:5, 12, 18, 24
840:12, 18
installed 914:8
installing 809:23
instance 664:24
714:17 742:2 856:13
877:4 894:15, 17
901:11 918:16
instances 856:3
institute 945:3
institutional 638:6
institutions 738:21, 24
instruct 847:20
insurance 746:14
857:13, 13
insurances 858:1
integrated 638:9, 13
integration 899:23
integrity 638:13, 18
639:9, 13 640:8 687:17
688:7 788:6 838:1, 5,
14 839:7 841:20 842:2
914:24
intellect 956:5
Intelligence 732:19
intelligent 860:2
intend 793:18 822:24
830:19
intent 913:3 924:13, 14,
15

interest 687:25 703:7,
12, 12, 19, 21, 24 730:25
856:21 915:16
interested 696:6 703:9
725:3 929:22 957:10
interesting 812:9
959:24
interests 689:16 925:3
954:6, 16
interim 783:8, 13 816:1
818:23 819:9, 10 820:2,
9, 9, 15 883:10
intermediate 737:22
internal 914:7
internally 920:15
924:16
interpretation 721:16
interpreted 741:8
interpreting 726:13
intervene 831:13
intervener 831:17
Interveners 829:25
INTERVENOR 630:3, 13
854:1
Intervenors 831:12
832:2 941:8, 12 942:12
954:12
Intervenor's 959:2
Intrastate 836:10
837:15
introduced 854:4
invest 667:19 736:1, 21
investigated 686:3
investigation 742:21
investing 683:8 739:1
investment 639:13
652:20 653:6 658:24
659:4 662:1, 7 663:23
664:3, 10 668:4, 24
669:11, 12, 15 670:18
676:17 678:5 690:2, 5
698:3 720:6, 17 736:10
738:4, 6 780:10 815:19
936:6 950:8
investments 643:20
667:25 668:6, 9 669:1,
14 703:16 801:11
810:21, 23 814:21
815:10 954:2
investor 725:13 732:11
735:25 736:6
investors 658:25 660:5
667:18 671:23 685:21
696:19 701:19 703:1,
12 723:18 725:4
729:13 734:22 736:14,
14 738:19 885:4 944:3

946:14
invite 695:10
invoices 911:21 912:10
involved 638:4 729:21
812:25 838:10 866:23
944:15
involvement 957:7
iron 895:15
issuance 674:21
714:13 721:12 722:3
issuances 721:25
issue 639:3, 4 642:17,
20 649:25 681:24
698:18 706:9 714:17
717:7, 8 755:4, 6, 10
758:6 762:18, 20 770:1,
3 771:5, 7, 8, 14, 17, 17
778:19 783:25 787:13
790:11, 12 794:12
810:8 812:17 814:15
822:8 826:21 846:15
888:18 895:8 896:2, 13
897:15 931:10 935:10
937:18 940:10 941:2,
16 944:9 948:10, 22
952:5 958:1
issued 698:24 721:22
920:11
issues 665:15 691:17
741:24 742:12, 15, 20
770:2 861:5, 6 917:1
933:21 938:3, 5 947:20
948:12 951:18 953:1
956:22 957:3, 6, 9, 10
issuing 674:14, 16
697:21
item 662:15 744:24
745:1, 17 749:6 859:13
items 660:22 662:16
674:13 749:2
iterative 884:6
its 639:12, 13 643:17
645:4, 19 661:2 671:7,
10, 22, 23 676:3 682:15
687:9 699:25 714:17
721:24 722:3 732:18
733:1 738:2 773:18
782:11 787:12 839:25
862:7 880:17 886:17
889:18, 19 898:16
899:22 900:6 928:5
938:1 942:1, 25 943:2,
4, 6 951:13

< J >
JACE-ULFSC 630:16
Jacobson 633:22
741:7 744:1 747:7

748:2, 5 753:15 764:11
803:9 805:5 879:15
880:9, 10, 15 882:20
885:15
Jacobson's 803:12
January 637:4 718:9
902:8, 17 944:11
Jeffcoat-Sacco 629:14
632:12, 17, 23 633:4, 12,
16 634:4 635:15, 16
662:20, 21 715:18, 19
739:10, 11 750:7, 8
778:4, 5 796:1, 5 797:2
804:22, 23 807:2, 5, 20
808:1, 8, 14, 20 833:15,
18 834:3, 15, 17 835:5,
6, 10 842:19, 22 843:1,
6 845:24, 25 848:7, 8
853:8, 9 863:12, 15
865:11 872:22, 25
874:12 877:24, 25
878:3 879:7, 8 882:25
883:1 888:13, 14 908:2,
5 927:17, 18 951:2, 3
960:20
Jerry 790:1 834:20
Jersey 650:11 693:2, 8,
17, 19 706:23, 25
726:23 778:14 779:21
787:7
jet 856:18
Jim 873:25
job 692:12 824:3
836:18 843:17 884:23
911:25 954:15 957:18
959:18, 20, 21
Jobs 695:4, 6 696:9, 21
716:5 718:7 815:2
826:16 874:5, 6 880:22
882:2, 11, 12
John 629:3 630:5, 6
712:24
john@johncoffman.net
630:10
joint 713:3
jschuh@nd.gov 629:9
Judge 627:15 675:8
682:9 693:7 749:7, 14,
18 754:20 777:17
792:16 794:3, 8 804:21
806:8 825:7 842:21
850:8, 12 852:2 853:24
863:9 872:17 877:18
878:23 879:5 885:16
886:7 888:8 911:14
927:23 928:5, 22
942:20 962:10

judgment 660:17 729:7,
21 936:12 938:1
July 750:18 767:16, 23
772:23 783:11, 11
940:4 959:1, 4 962:14
jumped 668:6
June 626:16 627:2
635:1, 4 772:25 782:9
791:17 958:19 962:10
jurisdiction 671:10
674:22 721:13 836:7
jurisdictions 655:10
657:6 660:12 671:11
673:15, 18, 25 685:2, 16
725:20 786:21 801:18
866:11 945:8
justification 725:22
940:25 944:25
justified 871:12 895:8
946:2
justify 800:19 802:4

< K >
K137 753:12
Kaiser 762:2 783:25
859:22
Kaiser's 873:25
keep 692:13 778:11
821:10, 12 880:2
883:15 914:14 917:3
919:18 920:13
keeping 922:7
keeps 951:21
kept 692:19 912:9, 12
914:21 920:3 960:8
key 722:7
kick 890:2 934:8, 8
952:2
kicking 890:3
kill 955:9
kind 656:10, 25 658:24
662:2 663:24 694:21
705:24 713:3, 13
719:10 722:7 726:11
730:19 734:12 739:7
750:12 769:10 781:20
784:6 802:2 810:5
813:5 821:12 823:25
824:2 837:23 852:6
853:14 859:1 864:2
867:22 869:3 872:9
880:22 882:9 888:4
900:20 908:9 911:22
913:19 920:2 943:12
945:14
KIRMIS 627:16
Kivitso 633:9 714:15
762:2 764:11 846:6, 7,

14 847:17 848:12
849:9 850:2 851:13, 21
852:3, 20 854:24
856:23 857:5 875:9
876:7 933:25 939:19
940:11 941:15 942:13
KMOT's 897:13
knew 722:14 909:14
know 646:23 648:15
655:9, 10, 23 656:1
659:12 661:17 665:15
667:6, 18 668:14
673:17 674:1 675:25
676:6 680:9 684:12
687:13, 23 694:18
702:8 704:13 713:25
717:9, 16, 25 718:15, 19
720:9 722:18, 21 723:7
735:22 742:4 744:10
745:10 747:10 755:17
757:3 763:2 764:19
770:14 771:4, 7, 8, 13
773:11 774:3 777:25
779:7 784:11, 11
786:18 787:20 791:7
796:7 803:13 805:3
807:13 809:15, 16, 18,
25 810:15, 20 811:11,
13 813:22 814:11, 13
816:6 818:2 819:16
820:21 823:5, 6, 6, 10,
18 824:4, 12, 20 829:13,
19 831:8 832:20
836:19, 20 843:20, 25
850:14, 18 851:5, 8, 8
852:7, 12, 13, 14, 17, 24,
25 853:11 854:2, 15
856:19 858:4 860:20,
20 862:6, 6, 21 864:6,
12 866:10, 18 867:3, 4
868:19 870:20, 21, 25
871:8, 15, 21 872:2, 7
873:11 875:7 897:16
899:12, 16, 17 900:19
905:22 908:9, 14, 18
909:3, 4, 13 910:6, 13,
23 912:18, 19, 20
914:11, 19 915:21
917:22 919:8 929:14
930:14 932:6, 19 939:7
940:5 941:4 945:23
946:8 948:10 949:2
955:5 956:25
knowing 774:24
809:11, 13 833:23
918:4 955:22

knowledge 828:23
832:25 899:24 916:3
953:24
knowledgeable 959:23
known 674:12 698:7
717:4 746:1, 7, 11
782:6, 8 794:22 796:14
921:13
Kroshus 631:9, 15, 23
632:8, 18 633:5, 13
634:6 662:24 663:2
665:20 689:8, 12
715:21, 24 719:25
726:12 778:7, 10, 15
780:23 808:22, 25
812:12 842:20 843:7,
11 844:3 865:14, 17
867:15 878:8, 9 883:3,
4 916:12, 16 918:18
953:16, 17
Kroshus's 676:13

< L >
labor 744:6 772:2
lack 778:19, 21 811:17
929:23
laid 731:1 925:11
land 956:17, 18
Lane 835:14
large 638:6 671:17, 18
672:8, 11 695:21
735:25 802:21
largely 640:13 641:4
647:12, 16 665:3 671:4
738:2
larger 693:5 696:2
698:25 828:25 858:3
897:10 933:1
largest 938:5
Lastly 703:25
late 799:19 850:22
852:12 884:20
late-filed 853:2 854:9,
12, 18 878:20 879:2, 11
958:9, 21 961:12
latest 891:9, 11 892:13
Law 627:15 693:7
696:16 697:4 734:20
794:13 804:12 837:20
940:5, 7 960:2 962:10
lawyer 688:21
lawyers 825:9
lay 667:21 679:14
699:22 851:9
LDIW 905:23 914:20
lead 644:24 953:8
leadership 742:19

757:5
leading 660:16
leak 762:11 807:24
839:13 840:2 841:7, 8,
10 844:9, 23 845:3, 6, 7
885:25 887:23, 24, 25
889:23 895:21 896:6,
20 897:6, 21, 25 898:13
904:1, 4, 8 906:2, 8, 15,
18 909:22 917:16
919:1, 3 920:17 923:24
934:24 936:19 937:12,
15
leaking 898:1 917:13
leaks 840:2 841:9
844:16 845:1, 10, 11
886:1, 14, 15, 16, 17, 18,
19, 22 887:16, 19, 20, 21
888:1 890:11, 17
894:15, 17, 18 895:1, 24
896:2 903:4, 7, 9, 11, 14
904:20 905:14 906:3, 9,
22 909:23, 24 916:20
918:24 919:12, 16, 19,
24 921:4, 10 937:18
learn 919:7 932:23
learned 928:16 960:16
learning 934:18
leave 749:17 778:1
800:20 852:22 854:16
934:11, 11, 13
leaves 904:25 905:5
leaving 706:19
led 639:22 945:15, 17,
17
ledger 752:6
Lee 834:21
left 810:3, 3, 4, 17
813:22 853:13 909:17
917:22 941:22
legal 687:15 688:22
773:5 794:12, 14 862:5
937:10, 12
legislative 661:9 935:10
legislature 773:8
legitimate 674:6
697:20 721:20 822:10
932:6 952:22
length 645:20, 23, 25
844:22 954:18
lesser 826:4
letters 926:25 936:4
letting 800:14 824:9,
11 950:25
level 660:11 688:2, 3
693:14 699:25 711:24
736:17 739:3 855:16,

17 865:2, 6 870:17
883:25 924:15 938:9
levels 711:9
liability 688:4 815:6
life 698:2, 4 810:4, 17
light 733:13
likelihood 662:10 922:8
limit 800:3
limitation 801:21
limited 641:5 682:20
683:21 799:15 839:12
847:5 862:16
line 643:12 651:15, 19
652:10, 15 659:3
660:22 662:15, 16
663:21 666:11 673:3
700:22 701:2, 4 703:4
704:1 705:6, 7 707:18
708:1 712:2 731:15
757:7 785:6 788:6
789:7 849:2 854:20
859:12 864:22 874:15
896:10, 25, 25 897:14,
25 898:5 906:3 914:16,
17, 17 916:24
lines 671:21 684:4, 7,
10 734:23 769:9 806:1
865:2, 4 906:4 915:2
link 914:3
list 838:24 839:2
929:25 947:15, 16
959:11
listed 713:9 723:1
781:5 826:25 858:12
listen 859:3
listened 694:2 799:10
listening 670:15
942:23 955:22
listing 713:9
litigated 709:5, 13, 18
710:16 711:1, 13
little 690:8 695:3
697:6 698:4 730:1
738:16 755:21 762:17
764:10 766:5 778:12
783:24 811:12 812:9
826:22 843:2 871:23
875:4, 6 888:4 902:1
911:23 912:16 924:2
928:10, 14 959:22
live 951:8, 17 955:8
living 957:13
LLC 630:6
locate 898:4
located 755:20
locating 897:20
location 640:18 646:2

912:11
lodge 680:20
lodging 856:5 868:6, 7
long 651:11, 12 663:24
669:9 691:16 697:7
719:2 745:13 798:12
839:2 849:1 850:13, 13
879:17 897:24 912:1
927:7 958:24
longer 783:23 800:15
815:5 816:15 824:16
898:2 934:7
long-term 858:20
look 647:10 650:22
661:8 668:17 680:13
683:3, 17 685:18 686:6,
7 688:17, 17 689:19
699:4 700:17 701:6, 17,
18 702:5, 6, 15 704:10
705:4 711:4 713:15
714:22 717:15 719:8,
10 722:25 723:7, 18
724:17 725:4, 13, 17
727:12, 18, 19, 22, 23
729:25 732:1, 17 738:5,
19 739:2, 5, 6 747:12
748:11 751:13, 18
753:3 757:24 762:3
776:11 781:16 788:4
795:3 796:19, 21
799:25 826:6 845:17,
19 848:21 849:20
850:12, 25 865:3
875:17, 25 876:1 881:7
891:2 894:17, 22 895:4,
13 919:19, 24 921:3, 13
922:25 923:6 924:10
932:17 950:13, 14, 15
953:3 954:23 958:3
looked 653:15 657:9
659:24 661:7 664:19
680:5, 10 686:5 704:8
709:22 710:8 727:21
746:21 747:1 753:7, 11
795:8 807:21 829:2
956:15
looking 677:24 679:18
682:24 693:17 707:17
709:4, 5 719:12 735:13,
14 736:19, 20 752:9
781:10 791:2 841:14
859:1 901:3 909:20
913:8 932:7, 7 953:7
954:15
looks 681:8 718:12
867:22
looms 933:1

loss 748:17, 20, 21, 23
749:2, 24 750:22, 24
751:4, 6 755:5 770:22
813:25 948:20, 25, 25
losses 771:10, 22
812:21 813:9
lot 657:19, 22 665:3
674:13 687:6 716:1
730:14, 15 735:8
778:16 819:18 822:5,
25 824:4 832:19
843:15 870:1 871:2
876:1 881:4 909:20
914:5, 14, 19, 19 918:9
920:20 921:15 925:13,
14 929:1 944:6 949:6
950:1 955:20 956:9, 21
957:8 960:6, 7, 16
lots 738:25 943:22
Louis 630:8
low 644:3 645:13
668:12 686:17 701:2
895:7, 10, 14, 15, 16, 19,
20 896:16 898:1 906:4
917:15 921:7, 25
923:10 924:7 925:8, 20
926:19 935:20 951:23
lower 640:9 647:1
660:6 664:24 688:9
720:23 724:7, 23, 25
725:1 754:5, 12 785:4
949:9
lowered 814:23
lowers 885:1
lowest 688:24 720:20,
22, 24 734:3 938:9
low-income 655:23
656:24 877:10
low-pressure 894:3, 10
895:24
low-risk 667:25 668:6,
19 669:11 703:1
LP 921:22
lucky 803:5
lunch 796:8 797:5
814:6

< M >
machinery 789:20
magnitude 934:15
main 788:6 789:6
790:12, 19 834:2
836:18, 18 888:21
926:21 949:11
Maine 779:25
mains 644:8, 11, 21
645:3, 10
mainstream 655:13

maintain 639:8, 12 640:7 939:6 maintaining 661:1 780:5 843:18 maintains 688:23 maintenance 753:22 757:4, 16 766:14 772:8 810:1 839:15 846:21 857:9 907:12, 15, 16, 18 Major 630:15 631:6, 12, 22 632:3 635:8, 17, 18 636:4, 5, 8 641:16, 23 642:3 661:14 665:12 668:2 672:18, 19, 22 675:5 680:18 681:13 713:17, 18, 21 715:16 737:5, 6, 9 739:8 750:5, 6 778:2, 3 795:23, 25 803:7 833:13, 14 834:9, 11, 14 842:17, 18 848:5, 6 853:6, 7 863:10, 11 872:19, 20 877:22, 23 879:6 882:23, 24 888:11, 12 907:25 908:1 927:15, 16 928:15 949:18, 21, 22 953:19 961:9 majority 649:21 827:3 makeup 682:25 making 643:19 661:1 668:24 669:14 685:8 723:22 724:5 738:4, 6 754:6, 10 773:16 800:13 820:25 925:15 944:3 946:25 952:1 956:7 manage 643:3, 7 644:1, 4 705:2 780:16 792:6 944:16, 17 managed 664:8 management 671:19 672:1, 2, 5 775:25 776:9, 22 838:5, 14 840:2 906:8, 15, 18 914:24 934:10 937:7 manager 836:16 910:2 937:25 managing 636:15 672:2, 3 manner 636:23 641:10 798:11 manufactured 914:18 March 695:16 718:9 803:3 899:13, 14 902:3, 22 917:17 943:17 March-April 695:24 marked 637:5 691:10 740:8 749:22 798:22,	25 804:9 808:7 847:12, 13 849:9, 18 market 639:17, 22 652:19, 22, 23 667:4 668:1, 2 669:16, 17 670:17, 20 671:2, 20 676:10, 16 681:24 692:13, 16, 19 696:17, 24 704:4, 6, 13, 14, 16, 18, 19 705:1 707:16 708:4, 7, 12 714:20 723:18 724:9 728:11 729:14 730:12 732:19 874:3, 4 939:23, 23 950:14 market-based 673:5 marketplace 652:19 markets 667:23 689:14 717:10 743:2 market's 668:5 Marlon 631:18 690:15, 20, 25 M-a-r-l-o-n 690:20 marmstrong@smithpors borg.com 628:21 Maryland 692:25 693:1, 7 779:21 787:3 master's 637:19 match 803:1 906:13 matched 832:5 matches 864:3, 4 material 839:5 886:11, 18 887:10 903:5 906:7 912:15 962:7 materials 711:5 923:23 math 820:11 mathematician 820:22 matter 859:24 894:12 921:12 matters 926:19 943:16 958:9 maturity 697:24 Max 776:12 MDU 633:8 635:5 649:16, 20, 22 650:24 651:5, 7, 8, 9 652:2 670:22 673:4 676:10 678:4, 7, 13, 15 680:3, 10 682:13 683:1, 2, 5, 11 689:22 699:11, 25 700:1, 11 702:8, 9, 11 714:14, 14, 15, 16, 16, 22 715:6 717:15 724:3, 14 728:17 731:23 732:17, 22 737:15 770:2 784:12 801:1 807:7, 21 813:9 814:8, 17 815:5, 12, 18 816:13, 19 827:5	843:16 849:10 853:18 858:17, 18 859:9, 10, 11 863:5, 16 872:1, 8 886:10, 24 887:12 890:7 891:3 895:24 899:9 907:4, 7, 9 912:10 913:9 920:15 929:19 944:15 947:15 950:6, 8, 10, 11, 16, 18 954:24 MDU-17 850:5, 9 857:5 860:18 MDU-18 888:15 903:4, 12 904:11, 14 906:4 MDU-19 808:7 847:14, 23 848:2, 9 858:10 864:10 865:5 869:21 MDU-3 901:19 MDU-50 680:16 682:5 MDU-51 878:25 879:2 958:13 MDU's 649:11, 14 672:24 673:2 715:3 737:14 799:9 812:19 837:10 840:18 862:7 922:20 949:11, 23 950:2 958:18 959:4 meal 868:11 meals 856:5 868:6, 17 869:3 mean 641:20 646:20 659:24 678:17 680:24 689:18 709:6, 13 710:13, 20, 20 723:25 738:6 746:10 760:6 769:13 776:18 777:10, 14 778:16 786:23 788:8 794:4 808:18 809:25 819:14 842:4 850:17 861:20 862:21 870:7 871:2 887:19 897:8 910:8 911:4, 23 915:24 919:21 930:13 946:8 947:17 949:3 meaningful 672:11, 12 means 658:1 669:13 685:20 686:17 713:25 769:13 944:7 meant 809:4 measurable 670:13 674:12, 24 688:14 746:1, 7, 11 762:5 782:6, 8 796:14 800:2 measure 670:25 676:15 782:23 840:3 887:20 measured 674:7 measurement 664:23	measures 701:24 738:2 839:23, 24 840:1 892:3 measuring 639:16 670:20 677:18 690:4 mechanical 894:21, 24 895:6 904:21 905:2 mechanism 658:13, 19, 21 659:16 660:8, 20 661:25 662:4 675:14 800:23 801:1, 4 802:14, 19 821:23 822:1, 3 823:21 830:10 930:23 931:23 933:4, 11, 24 934:5 935:14 945:4 946:24 mechanisms 658:16 659:1, 7, 9 660:12, 13, 15, 18 661:12, 23 675:14, 19 676:6 median 649:17 670:23 677:2, 13 689:3, 6 709:9, 17 710:17, 19 950:16 medical 746:13 857:13, 21, 25 medium 897:13, 25 898:4, 12 906:2, 4 meet 645:17 671:23 742:23 759:20, 22 784:12 786:7 936:21 meeting 718:24 757:16 769:2 908:6 meetings 747:24 769:15 770:16, 17 871:25 meets 800:9 member 775:15 members 799:3 928:23 951:8 mentioned 696:11 706:13, 17 855:11 881:21 898:20 906:2 merger 650:20 693:2 722:14 733:15 Meridian 769:3 merits 805:7 met 642:11 705:19 743:5, 17, 21, 21 762:7 763:3, 10, 15, 16 870:16, 17 873:9 meter 809:23 method 645:11 701:5, 13 717:3 722:1 726:17, 25 727:1 729:2 829:23 833:21 methodology 656:25 664:17 805:23
--	--	--	--

methods 694:19 701:5,
18, 18 811:2 922:2
metrics 640:2, 4
651:14 663:9 742:23
743:4 762:3, 8, 12
763:4, 5 764:21, 22
784:13 785:1 786:20
MFG-15 709:4
MFG-2 711:6
MFG-22 695:14
MFG-24 727:15
MFG-5 695:10
MFG-8 727:13
MFG-xx 692:4
Michael 631:5 635:25
636:11 637:2
Michigan 673:17
684:23 685:4, 21
microfiche 914:2
mid-50s 915:23
middle 689:3
mid-July 750:19
midsized 781:18
migration 896:13
Mike 635:19 641:17
mile 845:10
miles 716:25 769:6, 20
913:21
million 741:9, 21
745:16 750:19, 20, 22
756:8 761:6 766:24
767:5 779:7, 13 787:19,
19 788:3, 7, 9, 9, 18
789:1, 9 814:1, 2, 18, 24
815:6, 8, 18 816:13, 19,
22 818:12, 20 819:18
822:7 825:15 881:9, 13,
20, 24 882:5, 6, 7, 9, 10,
15, 17, 18 883:16 884:2,
13, 14 885:5 894:1
908:24 921:3 924:18,
21, 25 925:2, 5 933:14
934:16 935:18, 20
936:5
millions 906:25 915:12,
13, 13 930:7 943:18
947:12, 12
mind 687:10 720:13
726:11 730:16 898:7
948:3 955:18, 19
mine 719:6 851:16
928:15 942:23 961:1
minimal 802:24
minimize 842:8
minimizing 656:8, 9
657:2
minimum 837:2 838:25
Minneapolis 768:18

Minnesota 691:18
716:21, 24 717:1
733:14, 16 922:21
Minot 810:12 915:20
916:17
minus 649:9 651:24
677:5 678:18 711:23
718:13, 21 720:7, 23
724:13 733:9 734:4, 11
minutes 927:20
miscommunicating
766:20
misinterpreting 708:14
missed 753:24 761:23
810:5 904:19
missing 794:5 959:13
Missouri 630:8 636:12
711:16 712:3, 7, 10
713:1, 5, 10
misspoke 734:9
misstatement 756:13
761:15
mistake 744:9 774:22
mistaken 765:7
mistakes 932:22, 23
misunderstood 845:5
Mitch 812:2 864:13
Mitchell 628:15
mitigate 896:4
mitigates 658:24
668:23
mitigating 658:23
841:18
mix 651:7
mixed 822:5
model 639:21 695:24
696:18, 23 703:13
704:19 707:21 708:2
719:24 727:20 729:6,
21 730:18, 20, 21
735:10, 17 889:6, 6, 8, 9
890:6, 20 891:4, 7, 9, 12,
16 892:13, 18 894:12
895:9 898:23 899:2, 5,
11, 12, 16, 23 900:6
906:22, 22, 23 907:3
908:8, 12, 19 909:13
911:19 919:22 926:12,
14, 18 930:11 936:10
models 639:17 703:20
730:13, 15 735:12
890:24
moderate 664:2, 10
Modernization 930:16
modify 643:15
MOLDENHAUER 628:16

moment 642:12 702:4
812:2 815:13 834:20
863:25 903:25
moments 955:7
money 738:25 742:16,
16 759:23 770:6, 8
779:17 786:10 787:1
819:18 821:5 830:1
831:7 870:12 885:3
915:17 931:17 934:2
943:7 944:3 951:14
monitor 840:4
monitored 919:2, 4
monitoring 664:6
monopolies 717:13
monopolistic 653:11
684:13
Montana 771:18 945:10
Montana-Dakota 626:5
628:3 642:13 646:12
653:4 663:13 689:17
699:18 702:10 705:20
712:12 731:14, 23
732:8 733:25 736:3
753:10 754:25 758:12
759:19 760:1 762:1
765:10 776:22 792:13
847:20 879:15 890:24
891:17 892:5 893:11
898:17 928:4 931:20
935:4 937:8 938:11, 19,
20, 24 941:25 951:13
Montana-Dakota's
645:9 648:13 650:9
675:23 676:2, 24 677:8,
14, 21 678:19 684:8
699:12, 16 706:6
711:10 733:2 755:4
756:1 759:13 775:25
776:8 893:2, 4 899:20
929:19 938:8 939:3, 12,
16
Montana's 711:25
month 697:3 800:9
months 666:19 696:16
697:4 710:17 712:8
797:1 800:15 844:14
885:5 917:17 940:22
Moody's 696:11 723:5,
7, 16
Morin 698:7, 10
morning 642:11 655:2,
3 705:19 712:22, 23
754:24
morphed 834:20
move 641:7, 9 644:6
646:6 711:15 741:23
751:21, 21 774:2

931:14, 15 935:15
936:25 955:2
moved 771:10, 24
806:21
movement 636:25
640:22, 25 656:22
moves 636:23
moving 693:14 695:3
699:7 700:5 701:22
702:17 745:22 746:10
803:8 821:17 935:17
943:12 952:23 957:22
MPG-2 678:21
Mugrace 632:5 739:16,
17, 19, 23 740:7 749:21
754:24 762:17 763:13,
22 764:9, 15 768:15
770:11 773:6 774:2
775:4 776:7, 15, 20
777:21 790:11 795:8,
21 797:4 803:10
815:22 846:16 848:12
861:5 880:16 881:11
882:3
M-u-g-r-a-c-e 739:20
Mugrace's 805:3 814:6
861:6 862:22
multiple 937:21
multiplied 744:7
mutual 738:22

< N >
name 635:22 636:9, 11
642:12 690:18 705:20
726:8 739:18 797:17
835:11, 13
narrative 931:15
NARUC 930:15 952:12
957:7
nationwide 915:12
Natural 626:6 635:5
647:9 684:9 702:10
706:7 709:14 731:24,
25 732:12 733:3
836:10 837:16 839:4
877:16 893:2, 4 929:7
942:2
nature 671:15 842:12
901:5 921:7
near 944:13
nearby 867:24
nearly 709:21 933:14
necessarily 667:20
673:18 677:17 820:12
822:22 824:17, 25
844:18 911:3 919:21
necessary 888:22
893:6 894:9 930:6

932:15 936:13, 22
937:5, 19
need 640:25 641:12, 18
646:4 655:25 685:18
696:21 699:4 708:20
719:4 763:6 764:18
777:3 781:15 799:21
800:5, 11 819:22
822:19 824:25 828:20
830:15 831:2, 7 832:5
842:5 844:17, 18, 19
845:1, 4 853:3 854:11
860:19 871:18 875:13
881:17 882:2, 14
884:14, 24 885:1, 5
893:17 909:25 911:11
914:14 919:3 923:13
924:8 925:8, 9, 18
927:22 928:2 930:9
932:16 934:21 935:7
937:15, 17 939:6
951:24 953:22, 23, 23
957:16, 21, 25 958:1
960:19
needed 645:24 688:1
724:4 817:10 862:18
882:17 919:14
needing 879:16
needs 687:16 697:5
898:15 910:4 918:25
919:1 925:21, 24 935:2,
10, 19 940:3 944:20
952:18 954:25
neglected 863:3
negotiations 693:16
neighborhood 904:5, 10
Neither 861:23
net 741:21 742:17
750:20, 21 757:6 785:2
814:24 816:13, 21
817:14 818:6
neutral 663:16
never 813:4 831:8
832:24 861:16 924:22
929:17 930:8 937:3
952:25
new 664:4 679:11
693:16 706:13 766:1
779:21, 21 787:7
809:23 838:6, 7 859:25
892:15 904:14 906:8,
15 918:15 919:20, 23
923:7 930:12, 13, 16, 17
935:25 938:18 941:14
946:18
news 895:14
nice 851:14

Nicole 633:9 764:11
769:3 846:6
Nicor 702:2
night 648:15 895:13
951:21
nine 700:20 730:24
757:8
Nobody's 896:6, 6
nodding 878:22
Nods 735:7
non 757:8
non-known 674:23
nonregulated 653:12
669:15, 19 672:12, 15
683:9, 15, 17 684:1
715:14
nonsufficient 876:20
879:1
norm 868:19 951:10
normal 684:25 780:4
939:21 944:24
normalization 795:1, 2
normally 811:13 941:11
NORTH 626:1 627:3, 4,
8, 18 628:8, 13, 19
629:5, 7, 17 640:3
675:18, 23 684:8 686:3,
8, 13 699:13 702:10
716:13 769:11, 18, 22
773:7, 12 775:18
776:24 793:15 814:2
831:3 833:9 835:18
836:21 837:18 848:18
855:23 856:1 859:11
866:14, 16, 18, 25
877:16 896:14 899:16,
17 900:1 907:2 908:15
914:6 917:17 931:14
937:13, 23, 24 940:11
946:25 954:9 960:10
Notary 627:7 962:22
notch 652:3 678:14
679:1 718:16, 17, 20, 22
719:5, 5, 10 724:11, 14
734:3, 6
notches 711:11 718:25
720:9, 11, 16 724:12
733:21, 23 734:14, 15
736:4
note 741:3
notebook 901:18
noted 778:17 810:22
notes 784:1 863:22
notice 692:3 814:5
854:16 886:16
noticeable 695:19
noticed 695:7 713:8

770:14
not-too-recent 721:22
November 695:13
NSF 813:5, 7 877:5
958:12
null 913:2, 2, 2, 2, 2
nulls 913:4
Number 635:5 640:18
646:1, 2 648:21 651:12
652:6 656:16 694:20,
21 741:9 745:3, 5
748:25 751:2 802:22
826:7, 7 845:10, 11
856:16 874:15 875:15
877:13 878:24 887:15
889:10 904:19 914:14,
19, 19 916:20 921:2
922:19 923:25 929:4
947:22, 22 954:17
957:7
numbers 796:13
808:12 814:6 819:25
877:10 884:12 887:7
906:13 910:8 921:4
959:9
numerous 947:12
948:13

< O >
oath 846:8 876:13
880:11 885:19
object 644:20 661:14
680:25 681:1 756:13
761:14 792:16 794:4
850:16, 22, 23, 23 888:9
940:20
objected 647:6 857:17
929:17
objecting 647:4 853:19
952:8
objection 644:24
680:17, 18, 20 681:10
750:2, 4, 6, 8 794:9, 16
804:19, 21, 23 848:3
850:16 851:3 852:19
853:10, 20 879:3, 5, 6
888:12, 14
objections 851:1
852:22 853:6
objective 909:1
objectives 656:6 657:1
obligation 819:2
obligations 718:24
observable 639:22
670:14, 19 685:1
observation 639:21
observations 648:21

obtain 878:15
obtained 732:21
obviously 903:1 942:21
occasional 933:22
occupying 834:19
occurred 706:17 810:9
911:17
occurring 920:4
occurs 698:23 936:19
October 650:12 693:12
707:1 803:3 943:17
odor 762:11
offer 680:16 750:1
804:17 848:1 850:9
886:24 922:15
offered 759:13 909:8
offering 805:10
office 757:11 835:15
912:11 956:13
OFFICER 627:14
offices 913:9
officially 899:25 912:17
offset 688:13
offsetting 688:11
offshoots 826:13
oftentimes 896:23
900:1
Oh 681:6, 7 707:19
710:21 727:13 731:20
732:6 769:14 782:4
788:13 789:8 817:2
850:3 868:25 878:3
899:14 900:18 907:18,
20 945:5 958:16
960:20
oil 689:16 716:21
Okay 635:3, 15, 17
642:5, 5, 20 647:7, 14
648:13, 17 649:3, 7
650:18 651:22 652:12,
25 653:19 654:8
660:11 662:20, 23
663:3 665:18 666:7, 10,
17 667:9 672:18
675:22 676:18, 22
677:8 678:23 679:2, 5,
22 680:11 681:25
682:3 683:14, 19 684:8
685:9, 15 686:12 689:7
690:7, 17 691:20
692:12 697:16 700:12
706:6 707:12, 22 708:3,
6 710:12, 24 711:12, 15,
22, 24 712:2, 7, 16
713:16 715:21 716:15
718:11 720:24 721:1
722:6, 16, 23 723:21
726:10 727:4, 12

728:22 729:16 731:17
732:3, 6, 15, 22 733:6,
12 734:3 735:13 737:1,
17 739:12 740:22
741:1, 14 747:4 748:5
750:1, 9 755:7, 10, 15
756:9, 24 757:17, 20, 24
758:5, 10, 16, 21 759:2,
6, 10, 16 760:6, 8, 12, 18
761:1, 8, 23 762:16, 23
763:5 764:15 765:5, 12,
15, 18, 22 766:5 767:18
768:4, 19 769:2, 7
770:4, 7, 18 771:12, 16,
21, 25 772:6, 11, 14, 18,
21 773:11, 15 774:10,
16, 21 775:13, 22
777:10, 24, 25 778:11,
24 779:12, 18, 24 780:1,
19 783:1, 16 785:21
786:3, 21 787:9, 13, 24
788:1, 17, 25 789:8, 14,
24 790:4, 15, 18, 25
792:2, 7, 11, 23 793:2,
11, 17, 22 795:5, 21, 23
797:4, 9 802:14, 17
803:17 804:14, 25
805:10, 18 806:17, 20,
25 808:8, 14, 18, 20, 21
810:15 812:11 814:5, 7,
17, 23 815:5, 11, 15
816:18 817:20 819:7,
13, 24 820:3, 6, 15
821:16, 22 822:2, 4
823:23 824:24 825:4, 6
826:21 827:4 828:4, 18,
22 829:3, 8, 9, 22
830:22 831:7, 15, 18
832:8, 16 833:11, 13, 19
834:5, 9, 12, 15, 19
835:9, 20 836:12, 17
837:5, 17, 22 838:10, 22
839:9, 17, 22 840:6, 17,
21 841:25 842:9, 11, 15,
17, 23 843:7 844:2, 15
845:18, 20, 24 846:2, 7
847:8 848:5 850:7, 21
851:2, 11, 17, 21 852:1,
23 853:22 855:7
856:25 858:11 859:12
860:4, 11, 13, 16 861:6,
8, 9, 20 862:1, 24
863:21 864:2, 6, 6, 16,
22 865:11, 13 866:1
867:11, 15 868:3 869:5,
15 872:14 873:22
875:20 876:6, 12 877:3,
8 878:7, 19 879:7, 10,

13 880:5 882:23 883:2,
24 884:18 885:1, 12, 15
886:6, 20, 23 887:4
888:11, 15, 24 889:4, 10,
14, 21 890:19 891:2
892:2, 9, 18 894:1
899:8, 19 900:2, 3, 25
901:3, 11, 24 902:12, 16,
19 903:1, 4 904:11, 18,
25 905:2, 21 908:17
910:5 911:10 914:23
915:19, 24 917:3 918:7,
13, 18 919:24 923:17
926:1 927:11, 13, 19
928:6, 8, 13 946:17
951:5 953:15 958:14,
17 959:1, 4 961:8
old 689:21, 23 816:15
825:7 829:13 913:8
923:20 929:7, 8 946:16
952:4, 4
older 680:9
once 729:20 813:13
866:4 953:12
ones 701:2, 3 704:8
729:23 730:23 772:6
781:19 851:23 852:11,
14, 16 856:6 858:9
894:16 897:10 903:12
904:25 905:5 910:16
922:6 925:16 949:12
952:22
one-third 676:25 677:9
ongoing 693:10, 16
810:1 812:8 954:2
open 854:16 912:24
932:13 952:19, 20
opened 912:22
operate 658:14 664:3
903:20, 24
operated 937:3 943:1
operates 854:3
operating 659:23 664:9
685:4, 16 702:3, 6, 7, 7
710:3 714:18 741:20
742:17 757:6 785:2, 3
848:19 883:17 884:3
885:3 929:10 939:21,
24 945:13
operation 658:18 664:7
757:3, 16 846:21 867:6
893:4 937:7
operational 938:2
operations 682:16, 21
683:22, 25 684:9, 12
699:13 710:2 741:17
792:13 814:19 815:9,
19 839:6 857:8 866:4,

6 893:2, 3 934:12
936:8, 12 939:4 940:15
operator 839:11 890:4,
14, 16 907:5, 7, 9, 13
operators 824:3 838:8
934:10
opinion 643:1 684:24
725:21 729:14 784:6
795:10 873:24 907:14
915:15, 18 916:22
918:3 925:9, 10, 14, 21
927:1
opinions 680:12
740:22, 24
opportunity 643:21, 25
656:5 662:10 671:8
808:17 887:3 898:9
923:17 932:24 942:17
opposed 675:3 688:3
801:19 830:22 833:25
922:13
options 730:14 824:13
order 635:3, 9 643:9
652:19 688:1 713:14
758:5, 20, 22 797:9
804:2, 12, 14 828:5, 19,
25 912:12, 13 914:7, 10
939:5
orders 713:11
organizations 770:4
776:1, 9, 23 781:4, 7
957:8
original 693:24 746:25
749:14 760:22 814:17
815:7 816:21 881:12
originally 650:15
746:19 863:23 872:5
origination 902:10
outcome 701:6 730:15
811:14
outlier 648:6 673:8
709:20
outliers 845:12
outline 683:3
outlook 669:5 950:7
out-of-period 751:9
outputs 700:16
outset 660:9 823:20
outside 658:14, 22
660:19 662:1 675:15,
20 837:12 839:5
868:19 922:6 935:15
outstanding 724:18
overall 636:20 654:12
660:24 663:20, 21
686:5 718:11 741:21
742:3 814:15 840:21

overlapped 729:24
overlooked 930:21
overpressure 841:12, 12
overreactions 697:6
overrule 681:2
Overruled 661:19
oversee 837:14
overseeing 837:10
870:25
oversight 664:6, 6
824:9 836:5, 9 837:7
838:1
overstated 744:2
overtime 746:14
overwhelming 688:11
owned 693:4 738:23
owners 739:7
owning 809:20

< P >

p.m 797:7 880:4
928:12 961:15
P.O 627:17
package 812:4 874:1
page 627:24 628:24
629:24 631:3 647:21
650:5 654:9 673:7
677:6 678:20 682:11
701:25 707:15 708:1
709:5 727:11 757:25
772:7 775:10 781:7
783:2 788:5 846:20
855:18 864:10 901:21
902:1, 3, 7, 19
Pages 626:15 752:10
765:1 772:19 852:13
860:19 902:15 941:20
962:7
paid 653:25 729:11
743:11, 12 744:12
750:19 760:14 765:9
775:23 781:5 783:8
785:20 786:8, 12, 14, 15
826:11 858:19 859:18
860:9, 13 864:12, 16, 19,
23 865:6 867:13
870:11 873:8, 10
874:21, 24, 25 875:25
876:1 933:14
paint 945:15, 17, 18
paper 751:16, 19
753:12 895:5 908:21
913:24 914:1
papers 751:19, 22
774:4, 19 781:6 782:18
787:17 795:16 807:14
859:16 863:24

paragraph 682:12, 13
692:2, 3 732:6, 7
737:19, 20
Pardon 723:13
parent 649:22 693:4
699:16, 19 702:7
714:19
parenthesis 886:17
part 644:16 652:18
659:19, 20 663:13
686:2 689:17 692:12
699:17 712:10 716:7
731:25 741:16 765:15
775:8, 19 779:18
786:22 790:23 792:8
801:17, 23 803:17
809:9 818:18 819:16
836:23 838:12 840:10
853:2 854:20 870:4
893:14 899:15, 17
900:5, 5 901:12 906:5
907:11 908:17 914:24
916:4, 6, 7 919:6
925:10 928:20 944:18
946:21 947:22 948:7,
23
partial 941:3
participants 670:18, 20
671:2 676:10
participant's 676:16
participated 683:2
particular 713:14
855:25 882:1 913:21
particularly 657:3
665:5 668:3 696:6
730:23 801:5 822:25
867:22
parties 923:25 929:2,
22 942:17 956:24
Partnerships 930:16
parts 757:23 779:3
780:15 917:19 925:6,
20
party 759:3 763:17
837:24 922:7
pass 663:24
passed 656:4, 9, 19
765:13 948:19
passion 956:6
Pat 842:10 843:13
885:17 888:25 899:9
910:1 925:25 951:21
Patrick 627:15 633:2
634:1 834:18 835:1, 13,
25 962:9
patrolling 839:14
Pat's 824:3
pattern 657:25

patterns 643:23 657:17,
20 658:6, 8
Paul 628:5 642:12
705:20 754:24 847:12
pause 927:19
Pavlovic 745:20
765:21 767:1 792:19,
20 888:20 889:22
911:18 912:22 933:5,
10 937:1, 9
Pavlovic's 793:3
pay 656:1, 14 657:4
687:25 688:3 702:24
703:14 723:20 742:8
759:21, 23 760:2
762:21 777:3 779:13
783:25 784:3, 6, 20, 20
785:13 786:5, 24
787:12 807:12 808:6
814:3 818:21, 24 819:4,
6 820:5 823:10 826:1,
8 830:2 832:13 870:3,
3 873:2, 3, 18, 24 874:9
881:19 946:11, 13, 13,
16 948:7
payer 769:14 770:6, 8
779:9, 17 801:7, 7
944:9, 22 948:22
payers 762:21 765:13
769:22, 23 777:2
811:15 830:2 832:13
833:25 848:18 869:23,
24 870:2 873:2, 14, 18
874:22 930:5 931:5
932:5 933:15 942:14
944:3 946:11, 12, 14, 15
947:18 948:2, 5, 19
949:1, 3 954:14
payer's 931:17
paying 706:15 765:13
769:16, 23 830:23
859:14, 20 864:21
865:8 873:23 930:5, 6
931:6 946:18
payment 658:1 668:21,
21 786:8 826:19
884:21 947:19
payout 865:5
payroll 744:3, 7, 8
pays 779:9
PC 628:6
PCD-2 891:3, 11
892:12 900:17, 18, 25
901:23
PCS 691:10
PDF 774:24
peak 645:17

penal 799:22
penetration 896:25
Pennsylvania 779:22
787:4 895:12
penny 766:2, 8 931:6
953:5
people 702:23 703:20
738:25 739:5 769:18
837:19 868:4, 4 874:5,
6 896:5, 9 897:23
908:10 923:4 925:15
933:19 957:11
percent 639:2, 5, 11, 15,
24 640:1, 10 644:10, 12
645:9 648:7, 14, 19
649:1, 8 654:15 655:8
657:13 666:13 668:8, 8,
10, 11, 14, 15, 20 675:24
676:20 677:4 678:25
683:11 695:2, 20 696:4,
5 697:17 700:18, 23, 24
705:6 706:4 708:12
710:1 724:3 725:7, 20
730:7, 9 736:5, 5
738:23 742:5, 6, 8, 8, 9,
10, 13 743:24 744:7
745:7, 11 746:5 752:2
755:7, 11, 12, 15, 20, 22
756:3, 5, 6, 12, 15, 23, 25,
25 757:11, 15, 21, 25
758:13, 23 763:1
771:25 772:4, 9 773:3,
19 774:14, 16 782:6, 7,
20 784:3, 4, 5, 19, 19, 21
785:12, 13, 14, 15 786:1
787:11 788:12 815:25
818:16, 17 820:17
825:20 828:25 847:2, 3,
5 848:13, 13, 22 857:9,
16, 18 866:25 877:14
884:10 893:23 925:17
929:6 938:7 939:15, 20,
22 940:1, 9 948:4, 5, 6
949:5 950:2, 19
percentage 709:21
813:17, 18 870:21
894:25 905:19
percentages 728:14
percentile 734:16, 17
763:17
percolate 696:17
perfect 829:1 882:19
932:3
perfectly 935:19
perform 652:6 942:16
performance 743:5
762:3 840:4 870:4

performed 639:18
710:8 843:21
performing 653:14, 20
period 648:2 662:4
669:9 695:13, 14, 22
697:7 698:2 725:18
800:16 881:11
periodic 660:21 840:8
898:16 900:6
periodically 660:23
permit 853:3
permitted 878:25
persistence 956:7
person 663:11 867:23
917:14 929:3
personal 925:13
personally 765:19
851:17 855:1 860:19
908:24 920:8 954:23
personnel 855:5 860:17
perspective 640:11
672:5, 6 687:15
phased 858:19 859:15,
17, 19
Phelps 671:14
philosophical 936:17
philosophy 840:21
937:2 938:13
PHMSA 836:7 837:13,
25 838:5 841:2, 21
845:16 887:9 889:1, 5,
14, 18 890:6 892:3
898:15 899:22 912:17
914:24 915:15 930:11
937:19 952:13
PHMSA's 842:2 915:14
phone 956:9
phrase 756:21
pick 867:24 873:12
picked 704:20
picture 829:1 912:20
917:11
piece 742:16 786:4
819:13 824:21 839:18
906:22 911:7 912:24
917:25 918:5, 6 925:8
931:3
pieces 930:20
pilot 860:21
pilots 860:24
pinpoint 764:20 897:25
898:2
pipe 645:15, 16, 20, 23,
24, 25 801:24 809:22
823:1 824:15, 19, 21
828:6 829:13, 15
887:12 888:2 889:24
894:10 898:25 910:23

911:7, 22, 25 912:4, 19,
25 913:22 914:7, 11
915:13 917:4, 4, 8, 9, 25
918:8 920:2 921:16, 20
922:4, 5 923:15, 16
924:7, 10, 21 925:7, 21
926:15 934:20, 21
935:21, 23 936:21
946:16, 18 952:4, 4
pipeline 709:23 710:2
716:22, 24, 24, 25 717:2
745:18 836:5, 8, 13, 20
837:3, 18 838:1 839:21
840:1 842:2 957:6
pipelines 837:2 945:8,
20
pipes 920:1
pit 951:9
place 675:19 756:2
764:20 775:1 809:12
867:24, 24 893:5
896:18 912:13 940:13
955:8 962:11
placed 789:12
places 692:4 845:14
910:11 912:9 956:17,
18
plan 690:13 742:4, 11,
24 743:1 757:11 758:7
762:4, 19 763:15 764:2
779:1, 6 780:12, 15, 17,
17, 20 781:21, 22 792:6,
8 793:6, 7 801:17, 23
823:19, 21, 22 824:23
830:1, 14, 18 833:4, 5,
20 834:1 838:14 840:9,
11 841:15 844:21
858:18 889:19 891:3
892:3, 4, 7, 12, 14, 20, 21
893:5 898:16 899:20,
20, 23 900:7, 9, 23, 25
901:2, 5, 7, 8, 12, 23
902:13, 14, 19 903:2, 5,
8, 20, 21 906:20 908:17
910:19 911:4 921:24
924:3, 14, 20, 22 944:10,
15 946:20
plane 769:11, 24
851:19 855:6, 8 856:4,
9, 11, 14 860:22, 23
865:19 866:3, 9, 17, 20
867:4, 5, 8 868:7
871:23 872:4, 8
planned 898:24
planning 638:9, 14
892:6

plans 762:4 792:5
891:4 893:11 901:7
935:9, 18
plan's 893:10
plant 753:23 754:2, 2,
6, 8 766:12 787:21
788:14, 15 789:10, 12
806:20
plants 754:4, 7
plastic 823:1 886:22
887:13 893:20 898:25
905:7 910:20 917:4, 8
919:25 920:5 921:1, 5,
11, 14 922:3, 4 924:10
925:9, 23 934:20, 21
935:23
play 856:21 881:16
951:25
played 941:6
pleasant 778:12
please 636:9 690:18,
23 701:23 702:13, 17
739:18, 21 741:24
745:22 746:9, 17
747:16 748:15 750:15
751:11 753:6, 24
764:19 797:17 799:12
801:3 928:22
plowing 945:24
plus 649:12, 16 663:14
670:22 672:7 676:24
677:1, 8 678:22 689:2
700:2 711:10, 25
714:21 718:14 720:19
724:7, 14 725:5 732:4,
9, 13, 23 733:3, 9, 25
734:8, 10 737:13 756:2
792:4 809:4 816:14
820:24 829:13, 16
893:1 948:5
pocket 951:14
pockets 931:18
point 638:1 648:24
661:15 667:7, 21 668:5,
13 680:21 686:6
698:10 699:6 714:5
721:22 725:10 752:19
777:18 778:1 785:21
800:18 812:17 816:19
818:8 840:20 846:15
869:17 871:16 873:14
895:4 905:22 917:5
922:17, 22 931:13
934:9 940:7
pointed 655:20 694:9
702:1 894:16 912:2
937:20 942:8

points 666:19 694:14,
16 699:5, 6 700:25
708:25 709:21 719:15
722:12 726:18, 18, 22
727:2, 11, 24, 24 728:9
799:16 862:20 950:1
policy 638:9 868:11
923:23
politics 951:9, 10, 25
polymer 905:22
poor 776:16
poorly 801:20 809:6
Poor's 679:3, 17, 18, 22
680:21 683:20 689:21
699:22 719:7 724:11
731:23 732:20, 25
PORSBORG 628:16
portion 644:8 645:2
730:12, 12 784:14
812:24 813:16 823:14,
15 869:24, 25 893:16
portions 638:21 710:3
posed 839:21 926:20
position 637:25 638:2,
4 761:25 769:10
775:24 776:8, 22, 25
777:6, 11, 15 792:12
798:8 802:11 829:9
861:15 935:8 936:17,
17 937:4 938:21
positions 757:9 946:9
positive 646:23
possibility 744:11
854:17
possible 688:24
737:13, 14 956:1
possibly 733:7 768:10
879:25
post 882:11 912:8, 8
913:15
postage 746:15, 16
potential 722:8 914:4
934:15
potentially 644:24
895:18 896:19 898:3
917:1, 24
practice 684:20 759:8
809:14 937:17 938:17
practices 638:6
pre 816:3 882:10
912:8
precedent 773:13
805:19, 22 812:18
precise 699:4
precisely 870:17
pre-code 912:8 913:14
predecessor 638:3

predicate 812:23
predictable 668:22
predicting 705:6, 7, 7
predictor 942:24
predicts 703:23
pre-filed 637:3 642:2, 2
658:11 670:7 691:21
692:23 694:24 697:9
727:8 740:23 798:15
799:9, 14
premarked 749:15
premium 639:19 701:5
707:16, 19, 20, 23 708:4,
7 730:11, 12
premiums 700:13, 21
preparation 644:17
691:22 800:22 891:17,
23 960:4
prepare 889:8
prepared 858:15
959:21, 23
preparing 683:4
prescriptive 841:21
present 740:19 800:21
811:9 888:19, 24
942:17 954:13
presentation 734:19
960:1, 12
presentations 959:15
presented 700:6 939:2
955:24 956:2
presents 833:6
president 893:3, 7
894:7 934:12 936:7
938:10
Pressure 841:11 895:7,
10, 15, 16, 16, 19, 20
896:10, 16, 18 897:14,
25 898:1, 5, 12 906:2, 4
917:15 921:7, 10, 25
923:10 924:7 925:8, 20
926:19 935:21 951:23
pressures 915:11
presume 868:8 919:5
920:1
pre-TCGA 814:20
pretty 647:2 670:9
698:6 717:20 722:17
729:23 799:15 809:21
923:25 924:1 955:8
956:8 960:13
prevent 909:23 952:23
prevention 798:10
841:14, 15
previous 704:21
786:15 803:15, 18
805:4, 5 844:9 875:1, 3

previously 771:9, 14
774:22 814:9 855:11,
14
price 641:5 643:2, 6,
10, 18, 24 656:13 657:2
658:5 684:12 695:21,
23 696:17 698:16
723:10
prices 656:15 668:11
669:16 684:14 693:11
695:8, 11, 15, 18 696:1,
13, 15 697:3, 6 702:24
703:14 704:19 723:20
729:13 857:24
pricing 639:21 644:24
659:12 669:18 707:21
708:2
primarily 662:13
823:17 900:20
primary 638:11 644:23
679:20
prime 948:16
principal 636:15
principle 736:14
805:19, 22
principles 647:12
print 914:16, 17, 17
prior 728:1 740:11
774:5 790:13 810:22
827:7 833:3 841:2
862:3 882:3, 15 901:1
903:5, 7 920:14
prioritize 844:21
priority 842:6 919:14
922:13
private 769:11, 23
948:11
proactive 890:4 936:25
937:17 952:24
probably 649:17
666:23 673:23 677:1,
12 683:25 698:11
715:9 716:2 722:10
738:14 758:8 790:1
811:12 816:7 817:6
829:2 831:6 853:10
867:8 875:4 895:11
896:16 897:11 898:1
912:11 915:7, 18
925:14 955:12 956:12,
21 957:5
problem 635:16 751:1
770:20 782:25 800:17
802:1 809:16, 17
930:19, 19 931:17, 20
934:8, 12, 16, 25 935:1,
2, 5 937:15 942:5
945:20 953:3 958:24

problems 840:18, 20
845:13 920:6 922:10
929:17 943:23 953:1
957:23
procedure 879:5
918:11, 14
procedures 838:15
proceeded 892:21
proceeding 636:22
671:1 744:19, 20 768:1
805:21 811:13 831:11
960:3
PROCEEDINGS 626:12
635:1 638:5 787:3
801:15 827:11 962:9
proceeds 750:21
process 661:1 735:23
892:24 893:14 921:24
936:8 942:10
procurement 638:5
produce 640:2 656:7
663:9 708:13 885:25
895:21 934:20
produced 665:12
668:20 707:23 708:5
852:8 936:11 941:20
produces 679:22
708:17 906:11
producing 852:7
product 671:21 684:4,
7, 10
products 669:17
Professional 627:5
936:12 962:4, 19
profile 689:15 737:22
785:8
profit 671:23 771:3
program 676:3 756:2
759:4 760:9 778:18
790:15 801:12 821:24
824:19 827:22, 23, 24
828:17 829:7, 20 830:4,
6 831:9, 19, 25 836:5,
16 840:2, 5, 11 845:9
877:12 889:9 893:11
898:23 902:14, 17
906:15 914:25 919:6,
18 921:24 922:23
923:7, 11 925:22 929:5
930:21 931:7 932:3, 24
933:6 936:25 942:3
943:25 944:1, 1 945:14
951:13 952:11 953:6, 9
954:18
programs 665:12
742:5 830:2
project 790:20 796:21
901:12 907:21 926:21

934:5 936:18, 22
937:11, 19 943:9, 14
951:23
projected 704:1 755:4,
14, 19 759:14 766:24
772:1, 25, 25 773:2, 6
774:11 789:4 794:21
795:19 826:8 864:14
881:10 894:2 947:22
projections 729:16
774:1 940:8
projects 745:18 765:20,
21, 25 766:1, 8, 18, 22,
25 787:16 790:21, 22
791:7, 15, 22 792:15, 18,
24 793:1, 18, 22 794:1
801:24 810:8, 10 833:2
888:21 890:25 891:5, 8,
18, 21, 23 892:6, 14
893:6, 12, 23 894:2
901:1, 6, 8 921:1
929:12, 14, 25 930:1, 5,
8, 12 931:5 932:14
934:3 935:16, 24 936:2,
3, 4, 8, 13, 14, 23 937:6
943:7, 19 944:25 945:1
949:18 952:23 953:5
promoting 945:6
promotional 751:21
752:7 774:6, 7
prone 823:2
proof 653:22 862:9
863:17
proper 775:11 777:4
814:21 815:9 824:9
properly 640:15 674:11
700:15 817:11 831:2
property 748:20 749:4
proportion 703:22
858:4
proposal 643:5 644:9
658:12 823:14 957:24
propose 641:8 878:24
proposed 636:21
638:25 639:3 640:12,
22 641:13 658:17
673:1 767:21 791:23
792:25 822:11 828:9
832:7, 14 901:4 930:1
939:21 960:20, 22
proposes 651:18, 19
940:1, 17
proposing 646:12
655:7 750:23 751:17,
24 756:12 780:7, 8
791:11 801:1, 23
802:25 803:2 811:17
827:25 832:4 907:17

929:20 930:22 931:4,
11 935:3 939:11
protect 841:5
protected 664:7
protecting 659:12
protection 661:4 841:6,
12, 13
prove 855:20 894:20
940:6
proved 653:24 883:12
proven 822:22 906:10
proves 906:12
provide 639:7 641:18
646:4 686:10 688:2
702:18 722:16, 21
740:15 743:3 747:11
748:10 762:23 768:20
775:3, 11 777:4 780:11
784:12 799:7 801:12
836:3 847:18 851:4
854:10 861:16, 21
862:13, 18 911:1
provided 637:3 652:10
722:19 731:23 745:4
747:18 759:2 764:4, 6,
13, 17 767:23 768:3
776:5 778:22 846:17
852:11, 17, 22 854:1
855:10 862:2 871:14,
22 877:7 909:3, 5
956:14 960:16
provides 643:2, 3, 6, 14
662:6 671:6, 8 742:12,
13 773:25 837:2
940:23
providing 643:25 644:2
658:2, 5, 9 659:13
742:14 773:1 854:5
863:6
proving 936:21
provision 749:3 753:9
811:18
provisions 805:25
812:3
proxy 650:2, 6, 7, 18, 24
651:4, 5, 6, 13, 15, 17, 22
670:24 673:3, 5 678:12,
14 701:20 706:9, 16, 20,
20, 21 707:9, 13 710:2,
25 711:16, 19 717:6
719:3, 12 722:2, 4
723:2 724:13 726:21
729:8, 20 733:17
736:19 939:4, 5 950:17
prudence 792:14 794:5
798:10 937:6
prudent 829:14 862:8
888:22 890:4, 14, 17

893:6 894:9 907:5, 7, 9,
13 924:19 936:14, 18
937:11, 17, 19 940:12
945:2 946:2, 10, 12
947:2 954:21
prudently 663:25
psanderson@esattorney
s.com 628:10
PSC 628:13 688:17
750:9 811:5 899:9
900:7 906:14, 16, 17
909:8
PSC-24 740:9
PSC-24B 740:9
PSC-25 740:9
PSC-26 798:25
PSC-27 798:22
PSC-46 813:21 826:22
PSC-47 804:9, 10, 25
PU-16-666 804:13
PU-17-295 626:5 635:6
961:11
PUBLIC 626:2, 4 627:1,
7 629:5, 15 648:6
664:7 674:15, 17
718:12 798:5, 7, 11, 12
928:16 929:4 931:11
933:20 934:1 935:8
951:11, 24 952:1
962:22
publications 671:14
823:1
publicly 913:10
publish 681:21
published 654:15
794:23 847:6 939:23
pull 914:4 921:14, 18
pulled 895:13
pulling 698:13
punch 916:17
purchase 650:12
purchased 750:17
810:13 827:1, 2, 3, 4
911:22 948:16
purchasers 738:21
purchasing 916:8
purported 939:1
purports 888:6
purpose 636:18, 19
734:19 898:25 906:1
purposes 765:22
793:20 794:11
pursuant 847:6 891:22
pushed 941:9 949:3
pushing 952:12
put 655:7 658:11
689:13 707:6 735:15
736:1, 3 748:24 751:4

768:10 780:10 791:9,
11, 19 793:19 804:8
806:14 808:12 810:13
827:10 849:22 854:20
864:11 886:4, 11 889:6
893:5 899:1 904:16
912:3 913:21 914:22
917:25 919:11 922:10
923:3 928:2 929:9
930:24 931:17 933:11
934:1 936:4, 24 942:8
948:21, 23, 24 951:14
953:13 957:24
puts 694:21
putting 830:9 914:1
933:18 944:21 945:21,
22 946:18
pward@zkslaw.com
627:20

< Q >
Q1 717:15
qualifications 691:13
798:18
qualified 938:15
qualify 744:15
quality 688:7 959:16
quarrel 812:19 813:1
quarter 690:9 717:20
745:16 761:6
question 648:24
655:18 657:22 658:10,
15 669:22 677:20
682:6 689:9 703:6, 10
708:3 712:18 723:21
728:23 731:16 738:3
744:10 756:10 760:18
761:23 766:5, 21 767:3
776:16, 16, 21 783:2
792:23 796:6, 10
800:10 807:6, 18, 20
810:6 815:12 822:10
849:20 856:2 861:4
862:5 863:23 867:12
869:17 873:4, 5, 16
889:22 893:18 900:19
910:24 913:5 914:23
915:19 918:7 925:6
questioned 655:5
876:19
questioning 666:12
712:3 731:15
questions 637:13
642:15 654:18, 21
662:21 665:21 667:10,
15 672:17 675:6, 12, 15
676:14, 14 686:23, 25
692:8 705:12, 22

712:14 715:20 716:2, 4
720:1 721:2, 9 725:24
726:4, 12, 14 728:23
731:5, 12, 13 733:21
736:25 737:3 740:14
755:1 777:22 778:3, 6
780:23 781:16 783:17,
22 790:3, 5 795:22, 25
799:6 807:1 808:15, 16
812:12 814:9, 13, 14
816:25 827:13 833:11
842:13, 14, 16, 18
843:12 845:21 856:24
860:3 862:19 863:8, 11
865:18 867:20 871:17
872:2, 6 875:9 877:19,
21, 23 878:9 882:21, 22,
24 883:1, 4 900:12
907:24 908:1 911:16
926:2 927:2, 16, 18
942:8 956:20
quibble 700:25
quick 703:8 865:18
895:14
quickly 924:2 926:10
939:19 955:2
quite 638:14 664:15
700:22 704:9 720:16
730:2, 6 801:16 818:14
840:7 897:22 913:10
923:19 949:20 954:19
quote 689:21 815:23
869:12 920:9
quoted 882:8

< R >
Rabbit 880:22
race 864:25
railroad 843:22, 25
Raise 635:23 690:22
722:15 733:8 739:21
797:19 834:24 941:18
raised 832:11
raising 799:18 800:1
Randy 817:22 821:6
Randy's 819:22
range 639:11, 24
654:14 663:4, 8 665:2,
5, 9, 19 667:7 693:23
694:5, 22 699:6 700:18
706:3 708:16 720:6
949:7, 9 950:5, 24
rank 839:19, 20 890:21
891:16, 19, 19, 21
ranking 686:8 892:19
908:19, 22 910:9
ranks 908:25
rare 866:17

Rate 626:6 635:5
636:20, 22 638:8, 16, 17,
24 639:1, 14, 25 640:15,
21 641:2, 2, 11 642:21
643:9, 11 646:8, 13, 19,
20, 23 647:5, 9, 11, 20
651:10 652:24 655:6,
11, 19 656:1, 7, 21, 23,
25 657:8 658:15, 22, 23
659:19, 21 660:18, 19,
21 661:1, 6, 10, 21, 22,
25 662:1, 3, 7, 9, 11
663:4 664:22 665:14,
15 666:22 669:2, 6
670:15, 16 671:8
675:15, 20 677:17
683:2 687:9 688:22
694:24, 25 695:1
700:13 701:16 708:23
709:1, 6, 7, 13, 17
710:18, 25 711:12
713:4, 6, 11 721:19
727:20 729:15, 19, 22
730:5, 24 733:1 734:21
736:15 738:4, 11, 17
744:17, 20 748:18
749:2, 6 750:25 762:21
765:13, 15 766:12
769:14, 22 770:6, 8, 25
771:1 772:23 773:19
777:1 779:9, 17 781:21
783:7 786:22 787:3
790:23 791:8, 9, 11, 20,
24 792:25 793:12, 20,
24 794:11 795:18
796:23 798:9 800:12
801:7, 7, 16 802:6
803:15, 18 805:7, 21, 22
806:13, 14, 21 811:15
816:2 818:16, 17
819:10, 20 820:1, 2, 3, 7,
8, 16 825:15, 20 826:4
827:5, 7, 8, 10 832:12
833:3, 24, 25 846:22
847:2 848:18, 22
860:23, 25 862:9
863:17 865:1, 3 869:23,
24 870:2 873:2, 14, 17
874:22 875:15, 18, 20
880:18 881:2, 5, 22
884:4, 8 929:11 930:5,
24 931:5, 17 932:5
933:9, 12, 15, 22 935:19
937:24 939:7, 22 940:1,
16, 17 942:13 943:3
944:3, 5, 9, 22 946:11,
12, 14, 15, 25 947:6, 18
948:2, 5, 17, 19, 21, 23

949:1, 3, 16 954:14 958:2 rated 718:13 732:8 733:2 rates 636:23 640:23 641:7, 9, 12 643:5, 13 646:13 655:17 660:4, 16 662:3, 6, 16 669:13 671:6, 10 673:19 674:10 687:8, 23 703:8, 12, 19, 21, 24 730:25 736:22 744:19 751:24 771:19 777:1 780:9, 11 783:6, 6, 6, 7, 8, 9, 11, 13, 14 786:23 791:5 796:12 814:20 815:7, 16, 25 816:1, 2, 4, 15, 20 818:14, 15, 19, 23 819:9 820:2, 9, 10, 14, 15 868:8 873:6, 7 874:24 875:24 881:1, 2, 10 883:11, 11, 12, 15 884:10 939:4 942:2 948:18, 21 rating 639:13 647:15 649:4, 8, 12, 14, 16, 18, 20 651:6, 23, 24 652:2 663:6, 10, 14, 16, 18 670:21, 21, 23 672:7, 9 676:8, 12, 15, 24 677:5, 10 678:13, 19, 25 679:3, 21 682:23, 24 683:24 685:24 686:1, 5, 6, 11, 16 687:11, 19, 22, 24 688:10, 12, 18, 24 690:3 696:10 699:19, 20, 24 700:1 711:3, 7, 22 712:11, 13 714:19 715:4, 7, 10 716:2 717:18 723:6, 23 724:2, 19, 22, 25 725:1, 5, 7 731:13 732:13 733:9 736:2 737:13 739:6 950:16 ratings 663:6 667:2 673:19 678:21 679:23 685:13 687:7 719:3 731:23 732:17, 21 737:14 ratio 891:4 921:6 rational 931:10, 13 rationale 721:17, 18 ratios 704:6, 15 891:10 910:7, 11 reach 657:6 761:10 787:1 reached 693:1 759:11	react 937:15 reacted 696:24 953:1 reactive 890:1 935:5 read 716:16 736:7 737:18, 19 812:2 839:1 862:22 869:21 901:6 908:18 946:8, 9 readily 906:21 reading 720:13 858:14 ready 797:8 807:16 927:23, 24 960:18 real 643:25 654:12 671:8 709:20 745:13 896:3 951:18 959:17 reality 820:16 824:6 933:25 934:4 936:23 realize 812:7 820:11 realized 712:3 773:4 realizing 668:23 really 647:5 651:16 656:20 657:20, 21 658:4 663:19 703:20 716:4 717:8 725:3 758:15 759:24 778:19 799:25 801:11 802:5 803:1 809:4, 12, 25 810:23 811:1 817:13 822:19 823:20 824:2 833:23 850:15 870:11 875:20 888:3 896:8, 13 921:20 937:13 942:22 945:11 949:24 954:5, 20 955:8, 13 957:22 959:20, 21 realm 909:11 939:1 Realtime 627:6, 6 962:5, 6, 20, 21 reason 668:18 671:17 674:18 734:25 843:18 896:5 921:6 936:23 939:1 945:12 951:11 reasonable 639:5, 9 640:24 641:14 643:2, 6 650:24 651:1, 7, 12, 21 661:5 667:8 674:8, 9, 17, 23 693:23 706:3 714:9 721:14 734:21 742:10 743:1 752:11, 13 762:5, 10 779:4, 6 809:15, 17 810:25 811:3 824:23 829:14 862:8 871:19 888:21 890:14, 16 893:6 894:9 924:19 930:24 931:7 936:18 937:5, 11, 14 938:13 940:2, 9, 12 954:22	reasonableness 762:18 792:14 949:8 reasonably 647:16 651:6, 8, 14, 14 664:5 666:25 670:24 672:8 673:2 719:4 838:21 reasons 651:3 667:22 668:19 704:25 717:6 745:23 792:17 800:20 803:7 833:19 834:2 915:11 950:21 rebuilding 920:21 Rebuttal 633:8 637:4 666:8, 14 746:22 760:24 793:9 846:3 853:24 854:3, 4 861:24 880:7 881:7 901:16 924:13 928:5 941:8 951:6 recall 664:24 668:1 675:15 710:10 720:10 731:15 752:25 827:9 846:18 855:2 876:19, 23 880:9 886:1 888:22 889:2, 16 890:7, 21 941:6 944:14 recalling 846:6 receipt 773:22 receive 723:15 742:22 743:7 759:24 877:15 received 712:8 732:12 750:10 786:14 848:9 861:19 888:16 899:21 receives 636:25 receiving 877:11 recognition 767:2, 4 recognize 640:16 822:6 853:10 863:16 930:11 932:5 recognized 793:16 794:22 937:16 938:17 941:15 954:25 recognizes 662:2 recognizing 640:24 716:17 recollection 686:15 854:7 recommend 761:20 785:12 787:5 805:20 recommendation 665:1, 2 666:17, 25 667:1, 6 674:25 693:25 761:3, 5 767:1 768:13 776:7 777:7 792:20 793:3 924:17 recommendations 638:24 741:10 750:13, 16 754:10 776:3, 5	recommended 638:24 639:14 640:10 665:9, 19 667:7 674:4 675:2 695:5 725:15 741:25 744:6 745:3 761:20 779:22 822:14 recommending 663:5 725:6 742:2 799:13 800:20 reconsider 733:7 record 641:20 690:11, 18 706:15, 16 713:25 717:21, 25 725:13 739:18 768:20 776:6 797:11, 12, 17 817:10 841:8, 10 842:1 853:20 880:5 910:1 913:19 919:5 920:3 928:13 956:16 959:8 960:19 961:5 962:8 recorded 714:3 749:6 records 713:23 725:11 836:22 839:14, 14, 15 841:6, 7, 14 842:7 916:5, 6 922:7 recoup 801:12 recover 644:4 671:6, 23 697:20 748:25 750:24 752:2 812:21 813:9, 11, 13 822:7 875:21 929:12 951:22 953:4 recoverable 697:22 recovered 658:3 662:3 698:1 801:22 822:11 832:3 949:16 952:9 recovering 664:1 675:20 760:2, 4 943:7 recovery 659:16 675:14 714:1 744:23 766:23 801:4 803:4 813:2 821:23 822:1, 3 823:21 830:8, 9, 12 831:19, 25 833:24 893:24 930:22 931:23 933:3, 4, 6, 11 934:5 935:14 944:2, 2, 5 946:24 952:8 recreate 915:2 recreational 776:13 Recross-Examination 631:13, 14 632:2, 3, 11, 12, 22, 23 633:16, 17 634:9 675:10 687:4 731:9 737:8 790:9 796:3 827:17 833:17 872:24 875:11 927:5
---	--	--	---

Redirect 631:12 632:1, 21 634:8 672:18, 21 726:2 825:12 842:25 926:8
reduce 643:16, 17, 21 644:3 657:25 658:6, 8 788:2 800:7 839:24
reduced 657:18 660:4 741:19 747:7 815:3 881:19, 23, 24 882:6 883:21, 23
reduces 659:3 660:1
reducing 656:16 657:14, 21 659:6 744:3 950:19
reduction 741:10, 18, 25 743:23 745:18, 23 746:17, 25, 25 747:2, 17 748:6 755:22 757:21 758:1 771:6 774:17 817:13 825:22 881:14, 17
reductions 746:9 748:15 751:12
REESER 626:21 627:5 962:4, 18
reevaluate 840:9
refer 751:23
reference 700:11 727:15 737:10
referenced 697:18 710:14
referred 639:20 642:25 863:24
refers 826:18
reflect 647:12 718:6 737:14 786:24 795:13 816:7 817:12 847:23 853:20 882:13 886:11 887:15 949:2
reflected 660:6 682:22 695:24 696:13 699:19 723:19 946:10
reflecting 682:15 696:19 864:10
reflective 651:18 715:4
reflects 645:4, 5 647:16 667:4 670:13 701:15 766:17 785:19 870:4
reform 722:25
refund 881:25
regard 688:18 854:18
regarded 664:2 668:18
regarding 792:5 805:22 814:15 846:17 880:16 889:1

regardless 743:20 881:1
regards 780:14
region 945:11
regions 671:22
Registered 627:5 962:4, 19
regression 700:12
regular 681:21 780:3 918:11, 14
regulated 653:10 671:5 672:13 683:7 684:11, 12 688:16 689:3 715:6, 10, 11, 13 937:3
regulation 841:12
Regulations 836:24 837:20 838:13
regulators 913:14
regulatory 637:23 638:5, 9 653:15, 17 658:19, 21 659:1, 9, 19 660:13, 18, 20 661:25 662:4 684:18, 18, 20, 20 685:5, 10, 15, 20, 23 686:1, 3, 6, 8, 9 688:19 693:14 698:9
reimbursements 868:11
reinvent 932:16
reiterate 735:10
rejected 946:22
relate 741:16 742:17 766:4 805:7 861:5
related 638:16 643:19 688:10 741:11 742:5, 6, 15, 19 743:8 745:23, 25 747:19 748:16 753:8 756:16, 18 778:17 787:5 793:1 810:2 811:6, 7 856:1 916:24 954:2
relates 658:12 659:18 742:1 799:14
relationship 658:18 660:24 737:15
relative 667:17 669:4, 7 816:17 839:19
relatively 657:23 667:25 668:12, 18 669:8, 11 689:23 706:13 719:20, 20 737:25 838:6, 7
relax 959:22
release 718:3, 4
relevance 680:20 681:1, 3 851:1
relevant 672:13 689:25 690:1, 4 723:12 735:15

reliability 687:20 688:2, 4
reliable 652:16 670:17 688:8 729:5 936:15
relied 650:23 652:10 728:13 730:7
rely 652:5, 12 680:12 728:11
relying 669:16 792:19
remain 799:18
remaining 656:19 852:22
remains 954:8
remarks 959:14
remember 828:7 829:3 844:20 859:23 881:2 911:10 914:6 921:2 922:19
remind 846:8 876:12 880:10 885:18
reminds 955:6
removal 772:7 779:22
remove 771:3 904:1
removed 673:8 753:8, 13 765:23 766:13, 14, 15 767:5 772:5 774:6, 9 781:7 784:14 787:6 789:23
removing 753:14 766:2 792:24
rent 741:19
repair 844:21, 23 889:24 944:23
repaired 840:2 841:11, 11 844:17, 18, 19 845:1 886:18 903:4, 15
repairing 904:1
repairs 809:22 810:1 844:22 907:12, 16, 16, 18, 21 922:5 923:24
repeat 903:6
repeatedly 937:23
repetitive 843:16
rephrase 677:20 890:15
replace 809:19 811:4 822:24 823:9 829:12 889:24 904:5, 9 918:5 924:21, 24 925:1, 4, 11 935:22 946:19
replaced 692:5 903:15 919:14 926:21
replacement 745:18 789:6, 7 790:13, 20 792:15 810:2, 8 824:23 832:11 841:22, 23 842:4 888:21 893:5, 21 907:21 918:15 921:11, 11 925:22 926:21

935:21 936:14, 18 937:6, 10 943:3 944:23
replacements 788:6, 7 789:19 841:22
replaces 824:19
replacing 801:24 810:16 824:13, 14 945:19 954:2
reply 959:5 961:1, 3
report 648:18 680:2, 4, 6, 9, 21 681:8 689:13, 18, 21, 24 732:3, 15 733:1 735:15 737:10 887:9
REPORTED 626:21 709:7 710:16 886:14, 16 905:14
Reporter 627:5, 6 928:1, 10 959:17 962:5, 5, 19, 20
REPORTER'S 962:1
reporting 840:10
reports 644:17 680:10 696:11, 12 773:24
represent 642:12 705:20 732:16, 25 758:18 861:8 866:23
representative 757:10 851:6 855:22 859:20 865:22 891:11
representatives 954:12
represented 832:23 891:11 938:11
representing 636:16 712:24 851:22 954:11
represents 640:7 957:14
request 661:9 764:5 775:3 786:16 800:5 813:23 814:17 816:22 847:14 849:11, 12 851:22 853:1, 25 854:2, 8, 8 855:1, 4 856:22 862:17 871:1 877:9 878:14, 25 885:25 886:3 908:20 909:12 950:2 958:12
requested 636:20 647:20 709:1 764:1 791:24 825:15, 23 827:10 834:18 835:8 847:18, 24 850:14 851:19 855:9 861:16 871:15 878:15 879:2 884:10 888:9 938:25
requesting 639:2 767:15, 17 813:19 854:17 875:15

requests 753:25 764:7,
17 813:9 855:10
856:16 861:19 862:15
872:6 933:19 941:24,
25
require 660:21 661:10
729:6 838:10 841:2
887:11 915:1
required 672:25 794:6
838:7, 8 841:4 889:6
908:8
requirement 740:25
741:3, 8, 15, 22 743:16,
20 744:14, 16 745:1, 10
753:20 761:7, 21 783:5
787:15 815:3, 24
818:19 826:15 841:24
861:6 882:4 889:15
912:3, 14 914:13
915:25
requirements 638:17
660:19 889:1, 8
requires 643:11 845:16
requiring 661:5
research 676:20 799:24
residences 829:5
residential 646:11, 16,
17, 25 647:5 655:6, 12,
17 656:21 657:8, 23
877:15
resin 905:15, 22, 23
resins 823:7
resistance 896:21, 23
resolve 952:21
resolved 762:9, 12
resource 638:9, 13
679:19 714:25 732:4
Resources 649:16, 20,
23 652:2 663:14
670:22 678:5, 7, 13, 15
679:2 680:3, 10 682:14
683:1, 5, 11 689:18, 22
699:12 700:1 702:11
714:14, 16, 22 715:6
731:14, 24 732:4, 17, 22
737:15 830:24 831:1
858:17, 18 859:9, 10, 11
871:23 872:1, 8 938:20
respect 646:8, 11
649:19 654:10 664:21
667:5 673:6 677:9
678:11 679:23 683:19
686:9 706:9 709:14
713:22 715:3 756:3
763:18 764:25 765:18
766:6 768:23 769:18
775:4 794:19 806:12
827:20 846:15 848:11

852:2 854:19 877:10
889:4 899:4 937:1
938:5 939:19
respectfully 941:25
respectively 637:6
697:18
respects 716:18
respond 636:19, 21
644:2 657:21 660:10
668:9 681:16 723:25
764:6 794:9 853:23
863:4 871:20 880:18,
19 889:25 890:17
896:10 898:7, 10
909:14 917:15 926:10
941:24
responded 853:25
861:18 872:5 896:1
897:15
responding 696:20
862:15 873:1 896:4, 9
898:12 941:6
response 643:22
675:13 676:13 684:3
703:10, 11 733:20
741:14 744:4 747:9
748:8 749:23 751:14
753:25 772:22 780:13,
13 793:7 808:17
862:17, 18, 20 872:7
873:16 897:4, 18, 19
900:2, 4 908:20 941:10
959:2
responses 724:10
762:11
responsibilities 913:13
responsibility 823:25
947:18
responsible 837:1
900:21 923:21 947:25
948:2, 2
rest 716:18 784:19
785:13 834:13, 14
rests 834:8 928:4
result 661:13 662:5, 9
692:22 693:21 708:2,
18 728:6 803:23
806:13 825:15, 23
867:5 894:11 910:13
resulted 664:25 665:13
668:2 945:7
resulting 640:4 747:8
748:7 908:25
results 640:23 657:18
762:15 763:9, 20, 21
764:13, 14 782:22
840:4, 10 892:11

926:15 934:19 938:23
retail 639:10 640:2, 9
retain 874:2
retained 786:10 787:1
retaining 938:15
retested 918:17
retired 750:22 751:8
retrieve 917:19
return 636:20 638:24
639:1, 2, 4, 6, 10, 14, 16,
23, 25 640:6, 10 647:20
648:2, 5, 14, 19, 22, 25,
25 651:10, 16 652:24
659:19, 21 660:6
661:21, 22 662:7, 12
663:4, 8 664:23, 24
665:8, 16 666:22
668:20, 24 669:10
670:12, 16, 16, 25 671:9
673:3, 14 674:18
675:23 676:5 685:25
687:9 688:23 691:16
694:19, 25 695:1
704:10, 12, 15, 18 705:1,
2, 8 708:4, 12, 23 709:1,
18 710:1, 18, 25 711:13
719:13 726:8 736:15,
22 744:21, 22 745:1, 7,
11 748:19, 21 749:1
750:25 751:5 799:17
808:9 814:21 815:10,
19 881:23 884:5, 8
885:3 938:22 939:5, 7
943:3, 8 944:21 947:5,
6, 14 949:5, 7, 17, 25
950:5, 11
returned 709:13 710:9
807:9, 10, 22 815:6
817:13
returns 665:7 668:9, 21
673:16, 21, 22 684:25
685:2, 7, 11, 22 704:4, 5
713:10 718:8 735:14
802:7 949:6
revenue 636:21 638:17,
25 640:11, 12 641:14
646:21 647:3, 16
655:21 656:6 657:1
659:2 664:22 671:22
684:6 740:25 741:2, 8,
11, 15, 20, 21 743:15, 19
744:14, 16, 25 745:10
753:19 761:7, 21
765:23 766:6, 10 783:5
787:15 814:18 815:3, 9,
19, 24 816:11, 14
818:18 819:12 826:15
861:6 881:17, 19, 24

882:2, 4 883:16, 18, 20,
25 884:2, 6 940:24
950:20
revenues 660:25 795:1,
2 883:10 885:5
revert 941:1
review 639:22 644:16
651:4 666:1, 7 691:20,
21 714:8 759:6 760:12
768:12 791:17 793:8
805:6 810:21 840:12,
16 841:6, 9 843:3
853:17 858:8 860:20
899:16, 16, 19 932:14
946:7 947:2
reviewed 640:12, 22
644:17 660:7, 9, 23
740:11 763:15 764:10
773:12, 20 798:24
799:9 852:21 899:12
reviewing 840:13
879:4 895:12 899:11
revised 705:24 775:3
783:5 815:24 816:6
902:6, 6, 7
Revision 902:3
revisions 705:24
revived 911:18
revolves 909:20
rewarded 660:2, 4
rewards 874:1 938:12
RFP 912:3 913:20, 24
Richardton 790:15, 19
832:10, 18, 18 833:23
901:11 903:1 926:11,
20, 22, 24
rider 676:3, 6 780:5
802:15 831:1, 4, 4, 11,
17 947:4, 5
riders 675:19 802:11,
13, 18, 20, 22, 23 830:23
Ridge 636:12
Ridgeview 835:14
ridiculous 769:16
right 635:23 642:5
648:10 666:5 676:11
677:11, 18 678:10
683:23 690:6, 22 697:3,
13 699:14 702:12, 21,
21 709:12, 16 710:21,
23 711:11, 14, 18 712:1,
9 713:8 714:7 718:10,
20 719:18, 25 720:18
721:15 723:3, 24
724:10 727:17 732:14
733:24 734:5, 7, 24
735:2 737:12, 23
738:10 739:21 764:3,

20 779:15 780:22
783:8, 13 790:2 793:5
797:19 803:13 806:3, 4
810:18 812:5 821:9, 15,
17 825:4 826:13
831:21 833:8 834:2, 24
837:21 841:25 844:2
845:22 846:2 849:25
855:20 863:3, 6 864:13
865:23 868:9 870:7, 24
871:17, 17 874:5, 5, 6, 6,
11, 23 875:8 876:1, 6
878:4 879:23 883:14
893:25 898:25 901:9
903:20 904:5 914:17
919:1, 4, 16 927:21
930:3 955:4, 19 959:7,
22 960:12 961:4, 10
right-hand 855:18
riser 920:17, 18 921:17
922:25 923:1, 15
risk 639:19 651:14
652:20 653:1, 3, 6, 8, 11,
12, 15, 15, 16, 17, 18
658:20, 24 659:4, 5, 7,
12, 13, 19, 20, 23 660:1,
2, 2, 3, 5 662:15 663:20,
21 664:1, 10 667:2
668:9, 23 670:10, 10, 14,
18, 20 671:3, 13, 17
672:24 673:2 676:10,
15, 17 678:5 682:14
684:5, 17 685:15 686:3,
9, 17 690:2, 5 696:12,
20 699:18, 21, 25 700:3,
13, 21 701:5, 19 707:16,
19, 20, 23 708:4, 7
709:25 730:4, 11, 12
736:17, 18 737:21
786:25 801:5 833:21,
22, 25 839:19 841:17,
18 842:8 890:21 891:4,
10 892:4 895:8 899:2
909:1 910:7, 10, 12
911:8 916:9, 9 919:19
921:23 922:1 923:12
924:8 925:7 926:15, 20
939:16 947:8, 18
950:11, 14
risk-free 730:24
riskier 670:4
risks 659:11 839:21, 24,
25 840:9 841:18 842:5,
6 891:19, 20, 21, 25
892:7, 20 898:23
910:15 919:20 930:10
939:13

risky 649:21 668:17
669:14 715:11
Road 636:12 890:2, 3
934:9 935:6 952:2
robust 667:17 669:1, 8
950:7
ROE 650:1 652:6
666:14 670:5, 10
672:25 674:4 675:2
676:19 677:15, 21
678:3 685:16 693:21,
24 695:5 701:13, 14
705:10 706:3, 7 707:24
708:5, 13, 21 709:6, 7, 9,
13, 15, 18 710:10, 16
711:20 712:8 723:23
724:3, 8, 17, 18, 23, 25
725:5, 8, 20, 22 734:20
735:1, 18 736:3, 5, 5
760:19, 23 761:2, 5, 9,
10, 13, 20 816:8 938:25
939:8, 8, 14, 17 950:2,
19, 23
ROEs 703:7, 9 704:1
705:5 710:4 725:21
735:20 736:12, 13
Roger 698:7
ROIC 784:4
role 836:4 893:7
894:7 895:24 910:3
951:25
roll 716:1 933:23
room 661:18 730:17
749:17 797:10 954:14
959:19
roughly 706:10 725:18
815:2 829:5 894:1
939:15
round 819:25
rounding 694:17
route 923:14
routine 907:11, 15, 18
944:23
rows 858:24, 24
RPR 626:21
rubber 932:7
rules 915:10
run 817:11 849:1
890:20, 24 891:7, 10, 12,
12, 14, 15 892:13
906:12 907:2 909:12
running 780:4 892:18
898:21 923:21 926:14
957:11
runs 843:17 898:6
rush 947:1

< S >

safe 664:5 775:11
777:4 825:1, 1, 3
843:17, 24 903:20, 21,
21, 22, 25 907:5, 7, 9, 12
923:21 936:15 943:1
945:13
safely 664:3
safer 898:12 943:5
945:8
Safety 788:5 789:6, 7
801:10 812:7 821:20,
24, 25 822:17, 23
823:18 824:1, 2 827:21
830:16 831:9 833:9
836:5, 8, 13, 20 837:3,
18 838:1 843:15, 18, 23
845:9 894:9 908:6, 10
910:2, 3 929:4 931:11,
14 933:21 934:1 944:1,
20 945:6 947:5, 7
951:12, 25 952:1
953:20 954:2, 7, 20
957:4, 9, 19
sake 717:16 931:13
salary 786:18, 20
sale 749:24 771:5
Salem 766:1 892:15
919:20, 23 935:25
sales 741:16, 18 771:3
sample 828:25 920:1,
13, 16
samples 824:19 829:18
849:19 855:23 865:22
925:13
sampling 810:25
824:15
sandbag 698:13
Sanderson 628:5, 6
631:7, 13, 20 632:2, 7,
11, 16, 22 633:10, 20, 23
634:2, 8 635:11, 12
642:6, 7, 10, 12 654:17
655:6 675:7, 8, 11
679:6, 9, 12, 15, 16
680:15 681:6, 15, 18, 20
682:8, 10 686:22
705:14, 15, 18, 20
723:22 731:6, 7, 10, 19,
21 736:24 738:8
749:15 750:2 754:19,
20, 23, 24 756:20
761:16, 22 777:21
781:19 790:6, 7, 10
792:22 794:8, 18
795:21 804:19, 20
806:7, 8, 11, 25 807:19
808:3, 5, 10 815:8
827:14, 15, 18 842:15,

16 846:3, 5, 9, 10, 13
847:9, 13, 16 848:1, 10
849:5, 8 850:8 851:4, 9,
12 852:1 853:23
854:23 856:23 857:7
872:13 876:9, 10, 15, 18
877:18 878:6, 12, 19, 23
879:13, 14, 18, 20, 24
880:7, 8, 14 882:20
885:14, 16, 22 886:6, 9,
23 888:17 900:11
926:6, 9 927:2, 22
928:4, 21, 22 951:5, 7
958:11, 20, 23 959:6
961:1, 7
Sanderson's 942:21
Sara 798:24
sat 699:8 927:7 953:1
957:8
satisfactory 682:14
save 872:17
savings 856:13
saw 644:9 668:7, 8
721:21 742:25 941:19
960:6
saying 680:14 696:8
702:15 708:15, 17
728:5 738:12 761:1
769:9 782:4 796:10
803:13 819:22 823:2, 9
829:17, 19 830:14
843:23, 24 851:5 865:7
870:5, 8 873:13, 16
875:23 886:21 900:3
921:18 922:24 924:16,
17, 18, 23 932:2, 4
933:22 944:14, 16
946:5
says 682:13 687:16
698:15 710:19 724:11,
15 725:11 727:11
742:25 752:7 756:16
758:12 763:10 795:6
806:3, 3 815:24 850:1
902:3 912:24
scenario 930:4, 9
scenes 907:1 960:5
schedule 727:13, 16
783:10 786:17 787:21,
23 803:1 864:11
958:18
schedules 754:14
Schock 632:14 797:15,
21 798:4, 21 804:9
805:3 806:6, 12, 25
807:19 827:19, 24
829:22 830:17 831:11,

18 833:12 834:5
880:16 912:2
S-c-h-o-c-k 797:18
Schuh 629:3
SCHWEIGERT 628:16
scope 661:15 682:20
683:21 734:13 794:5
score 911:8
scores 891:5
screen 909:16
scrutiny 943:8
se 718:18
seat 834:20
second 643:13 682:12,
13 720:24 732:6, 7
751:7 786:4 787:17
838:23 908:17 948:10
953:2
seconds 745:14
secret 740:9
Sections 862:23 918:8
securities 668:17
security 667:16 668:19
see 648:10 656:22
660:19 663:19 669:21
682:12, 17 690:1
693:13 696:17 700:19,
22 708:6 713:6 714:9,
13, 20 721:20 727:24
729:5 732:5, 7 738:11
743:6 747:21 755:12,
13 762:13, 13 763:4
774:20 781:25 782:11
785:18 786:16, 20
787:20 794:21 809:3
845:9, 12 849:24, 25
851:4 855:17 858:25
864:7, 13 878:22 881:8,
13 892:11 895:5 910:9
914:15 915:2 950:16
956:22 960:2, 3, 3, 4
Seeing 845:23 911:6
920:4
seek 774:6 833:1
seeking 772:7 774:13
775:5 883:19 893:24
936:5
seen 658:17, 17 661:12
696:11, 15 716:10
724:21 729:7 743:4
762:6 773:1 800:14
801:14 831:16 939:3
943:9, 11 945:9 956:9
segments 682:19, 25
683:20
seldom 831:16
select 645:16

selected 650:7, 19
706:10 717:9 908:19,
23 936:9
selectively 852:14
sell 948:20
send 815:20 914:20
sending 769:3 920:13
sense 657:10 694:14
695:9 882:19 914:12
940:14 948:8 952:11,
17 953:22 956:21
sensitive 957:10
sent 924:11, 14
sentence 737:23
815:23
sentences 737:18, 20
separate 713:11 912:7
separately 821:2, 3
separating 699:12
serious 896:17
seriously 955:13
serve 645:15 845:8
940:19
served 845:8
serves 848:14 866:10,
13
SERVICE 626:2, 4
627:1 629:5, 15 636:23
638:15, 20 640:3, 13, 14,
15, 20, 23, 25 641:8, 10,
13 642:18 644:1, 5
646:4, 14 647:12
653:11 656:2 658:2, 9
659:3, 13, 14 660:24
664:22 669:13, 18
671:5, 6, 7 674:13
684:15 687:20 688:8
742:6, 12, 15, 19 749:3
753:9, 10, 23 754:8
756:16, 18, 25 757:10,
12, 13 762:8 763:2, 16,
19 766:12, 13 775:12,
17 776:12 777:4, 13
784:12, 22 785:16
787:4, 22 788:6, 14, 15
789:12, 12 790:12, 20,
22 798:5, 13 824:16
873:17 922:17, 22
928:16 935:8 938:9
949:24 953:19
services 638:7 669:18
683:15 741:21 922:19
serving 643:12 657:24
session 843:13
set 669:12 684:14
734:21 744:19, 19
759:16, 25 760:8
774:17 798:18 812:18

818:15 821:1 822:3
849:1 868:23 870:18
873:24 874:4 888:25
909:25
sets 671:6 789:5
setting 638:17 639:14
671:10 687:8, 23 703:9
781:20 792:23 848:23
settle 811:25
settlement 758:3, 19
801:18 803:23 804:1,
15 805:4, 5, 18 811:6, 8,
9, 11, 14, 16 812:18, 20,
23 813:1
seven 678:12, 17, 18
700:19 702:3 710:16
765:25 766:1, 22, 24
892:14 906:23
sever 908:25
sewer 896:25
share 695:11, 15
698:16 718:4, 6 723:20
729:13 752:11 757:6
785:3, 5 855:25 858:17
859:11 866:8, 14, 15
shared 853:16
shareholder 742:17
762:20 779:10, 16
785:7, 11 787:6, 10, 10
864:21 865:7, 8 870:11,
12 873:23 874:10, 24
946:13
shareholders 762:24,
25 784:10 785:11, 13,
14 864:23 867:13
870:1, 3 873:10, 15, 18,
19 874:7, 21 913:13
931:18 942:14 943:4, 6
944:2 947:15, 23, 24
948:1, 8 951:13, 20
shares 738:23
shed 659:11
sheet 851:13 858:14
896:22
sheets 850:4
shifted 660:3
shifting 833:25 947:7
shifts 801:5 833:21
shocking 952:25
shoes 871:3
shop 920:18
short 683:10 854:15
915:16 944:22
shortfall 867:13
show 747:19 755:20
763:9, 10, 20 767:20
768:1, 1 770:20 773:24
774:18 780:11, 12, 17,

17 782:15, 22, 23
786:17, 18 788:20
805:15 825:2 852:15
856:3 862:7, 13 871:10
884:8 909:16, 19 914:3
939:12 947:24
showed 774:4 912:19
917:11 947:15
showing 648:1 768:5
855:8 864:13 873:6
881:9 908:10
shown 659:22 674:7
678:20 782:18 783:9
849:9 910:17 925:22
939:13 942:25 943:1
944:19
shows 674:9 725:16
743:4 762:7 773:2
788:5 860:13 865:5
898:11 931:23 939:15
side 648:11 733:13
800:1 811:11 812:20
830:8, 9, 12 855:18
867:6 915:6, 8
sides 813:7
sign 851:17, 20 855:4
872:3
signal 643:2, 10
signals 643:6, 24 658:5
signature 851:14, 14
signed 695:7 852:3, 21
significant 648:21
659:22 660:14 665:15
672:14 722:10 763:23
856:16 916:20 917:5
significantly 670:9
signing 855:15 872:9
similar 660:12, 15
667:2 675:14 706:21
719:17 763:18 769:22
795:3 802:15 805:25
830:23 926:15 933:7
similarly 919:9
simple 718:14 819:23
simpler 868:2
simplified 910:12
simply 651:19 656:14
659:8 776:16 818:14
931:16 949:20
single 648:18 662:15
756:4, 11 765:24
851:22 853:25 855:4
929:2, 3 938:16 939:25
sir 635:18 636:5
641:15 654:23 672:19
675:5 713:18 715:16
737:6, 11, 24 738:13
739:8 778:3 795:25

833:14 834:11, 14
842:18 848:6 853:7
863:11 872:20 878:11
879:6 882:24 908:1
927:16 949:22
sit 676:1 846:8 905:13
934:24 960:2
sites 908:18 910:7
siting 717:2
sits 937:4
sitting 951:23
situation 792:11
937:22 938:19
six 668:8 678:21, 23
714:25 847:6 852:13
910:7, 16 939:22 948:4
size 645:23 653:5, 11
695:9 699:23 701:25
702:1, 6 703:23 704:12
887:19, 20, 21 888:2
912:25
sized 919:9
SJI 693:5 722:14
skew 651:16
skewed 673:15, 24
skipped 734:9
skipping 868:1
slide 700:9 702:17, 18,
20 703:25 704:2, 21
710:14, 14 711:15
slides 700:6 701:22, 23
710:15 890:7
slightly 673:23 686:14,
18 728:7 730:2 784:2
939:17
slow 896:6, 20
slower 703:7
slowing 669:6
small 653:12 655:22,
23 656:24 657:23
663:13 671:13, 16
672:1, 3, 4, 6, 7, 10
693:3 702:8, 9 823:14,
15 827:25 829:6, 10, 12,
18 939:24
smaller 647:1 656:12
657:19 671:12 696:2
704:13 781:18 819:3
935:23
SME 921:12 927:11
SMEs 927:8
SMITH 627:16 628:16,
17
software 772:8
sold 750:21, 23
solely 747:25 763:18
Solid 775:8

solution 809:17 942:4
952:16
solve 809:17 935:7
solved 943:25
Somebody 700:2, 3
703:23 714:8 718:16
somewhat 689:16
860:2 884:7
soon 841:11
sooner 944:3
sophisticated 738:19
Sorry 681:8 707:22
710:21 727:13 738:10
753:24 776:15 781:12
820:4 849:15 850:3
858:25 868:25 900:18
928:5
sort 863:19 884:4
sound 666:5 730:16, 21
sounded 828:24
sounds 649:10 666:16
811:3 829:21 830:5
831:24 861:14, 15
893:25 911:14
source 686:13 699:22
940:24
sourced 692:6
sources 652:5, 6, 9, 16
654:10, 15 667:20
729:22 839:12 847:6
939:23
South 650:11 693:2, 8,
19 706:23, 25 726:23
899:25 908:15 945:10
speak 809:13 828:16
907:19 912:18
speaking 656:20
673:14 801:20 898:11
928:16 955:18
Special 629:4
specialization 638:12
specific 674:5 675:4
680:6 726:19 743:8
753:9 767:21 780:15
795:6 805:20 842:1
specifically 641:1
647:10 657:9 659:24
661:8 682:12 683:3, 17,
23 684:22 685:18
707:17 709:5 716:14
731:12 758:20 788:5
792:18 806:18 831:9
835:7 847:17 872:3
887:22
specifications 912:4
specifics 695:3 792:4
901:7

specified 962:11
spectrum 670:4
speculating 867:9
905:18 908:16 909:3, 5
spell 690:18 739:18
797:16 836:25
spelling 635:21
spend 766:3 820:17,
18 837:6, 9 915:17
938:22 956:13
spending 766:24
868:20 930:7
spent 670:3 751:7
765:24 933:16, 16, 18,
20 957:4
spigot 895:17
Spire 711:16, 16, 20, 23
712:4, 11, 18, 25 713:6,
11
Spire's 711:22
split 706:13 742:3
752:2
spoke 909:12
spread 636:21 638:25
640:11, 12 641:14
645:18 664:22
spun 731:14
SSIP 658:13 660:8
661:17 675:14 765:19
766:4, 17, 22 778:17
780:2, 7 788:3 790:11,
15 792:3 793:1 794:9
800:23, 25 801:4 809:6
812:6 821:17 827:20
830:6, 11 832:14 901:3
907:20 924:3 929:5, 20
930:21 931:7 932:3
933:11 935:13, 15
936:25 942:3 943:6, 12,
25 944:1, 1, 10 947:9
952:11 954:18
S-S-I-P 926:25
St 630:8
stability 655:21 656:6
657:1 669:10 683:24
684:6
stabilization 801:17
stabilizes 647:3 671:22
stabilizing 646:21
659:2
stable 647:16 667:25
668:6, 18, 22 669:19
703:1 706:16 723:16
738:2 943:2 949:14
STAFF 628:13 629:12
631:17 633:1 654:6
667:5 690:15 739:2
758:9, 12 763:23

764:18 777:11 781:15
784:19 785:14 789:25
799:3 800:25 802:21
803:17, 21 804:4
816:10 822:10 823:13
827:20 829:24 830:13,
22, 24 832:11, 24 833:7
834:8 837:12, 14, 24
840:25 841:8 851:24
853:13, 18 854:1, 3
857:25 861:16 871:3, 7,
14 899:9, 18 900:7
901:3 908:6 909:9
910:1 929:16 931:8
932:5, 9 933:16 936:5,
16 938:7 939:10
940:20 941:7, 12
942:11 943:11, 21
949:8 952:21 954:10
959:2
Staff's 769:10 829:9
888:20 932:13 934:23
957:23
stage 852:12 934:22
stairs 955:11
stakeholder 670:16
stamp 932:7
stand 753:19 768:2
808:11 809:3 836:1
876:11 877:1 885:17
Standard 679:3, 17, 18,
22 680:21 683:19
687:14, 15 688:22
689:21 698:6 699:22
719:7 724:11 731:22
732:19, 25 759:8 794:5,
14, 20, 23 816:8 914:13
937:10, 12
standards 837:2
899:22 941:1
standing 640:5, 8
664:25 665:10, 17
680:13 687:17 688:24
932:2, 4
standpoint 646:23
655:21 785:22, 23
896:3
start 642:14 675:12
679:13 705:4 730:10
734:18 736:7 835:20
846:6 889:4 922:12
929:5, 25
started 637:22 668:12
794:1 854:8 902:17
930:11
Starting 741:7 750:18
783:4 857:7
starts 726:8

STATE 626:1 627:3, 7
636:9 655:12 683:23
693:15 725:17 769:24
770:2, 8 776:4 824:6
836:20 866:18, 20, 22
887:9 899:24 908:10
stated 758:20 830:21
851:1 949:23
statement 657:10
659:10 667:20 678:16
685:8 748:24, 24 751:5,
14 771:11, 24 779:5
788:4 812:2 885:7
statements 714:4
795:16
states 866:11, 14 908:7,
14 922:20, 20 931:24
932:17, 18, 20 933:5, 8
934:6 945:4, 5, 7 946:3
951:16 952:14
statistically 828:5, 19
stay 884:6
steadily 782:24
steady 737:25
steel 886:22 887:13
894:3, 10, 18 895:16
904:20 917:4 921:3, 4,
7, 11 922:4 924:7
925:7, 21 926:20
935:20, 21
stenographic 962:8
step 834:6 845:23
876:7 890:19 892:2, 5
893:10 898:14 914:1
Stephanie 633:19
876:11
stepped 915:15
stipulate 850:15, 20
stock 668:11 669:11
674:14, 16, 16, 20
693:11 698:24 714:11
721:12 723:10
stockholder 784:7
stockholders 873:4
stocks 722:24 738:21
stop 885:8, 11
stopped 915:15
straight 646:13, 20
647:12 655:19 656:22
700:19 940:18
straightforward 722:17
strap 918:1
strayed 888:4
stress 823:3
strict 721:18
strikes 722:7
strive 688:19 800:11

strong 667:17 669:4
687:19, 24 734:22
939:6
stronger 678:15
strongly 845:19 895:6
structure 639:4 640:1
647:13 651:7
structured 661:24
stuck 708:20 880:24
students 960:2
studied 639:25 801:25
studies 638:15 651:10
671:14 673:5 676:2
study 639:19, 20
640:13, 14, 20, 24 641:1
642:18 652:24 666:23
667:3 671:13 674:19
681:5 707:16 799:25
906:1 922:17 925:4, 9,
10, 23 945:19 949:24
stuff 752:8, 15 753:8
821:17 826:12 857:17
879:12
subcontract 772:2
subject 651:15 653:7
666:16 675:25 683:18
729:4 879:4 894:12
921:12 926:19 961:11
subjective 729:16
735:3, 11 938:24
subjectivity 735:8
submit 816:16 912:3
submitted 691:9 740:7
798:21 807:17
subscribe 732:20
subsidiaries 732:18
subsidiary 712:4
subsidize 715:14
substance 959:15
substantial 948:20
substantially 864:17
substantiate 853:11
substantive 792:19
substitute 938:1
subtractor 796:16
sudden 952:3
suffer 724:4, 5, 8
sufficient 802:24
suggest 945:12
suggesting 724:1
suggestions 952:20
suggests 845:19
suit 836:1
Suite 628:7 630:17
sum 659:6 911:15
summarize 741:25
745:22 746:9, 17

747:16 748:15 751:11
799:12
summarizing 743:14
summary 638:21 681:9
888:6 908:25
summer 897:17 921:11
supervisor 868:17, 18,
22
supplemented 728:14
supplier 684:13
supply 887:9
support 639:13, 23
640:5 655:25 663:9
665:16 688:7 743:23
796:14, 16 939:17
940:14 943:15, 15
supported 683:24
737:25
supporting 687:18
698:3 761:13 778:20
799:24 850:24 853:14
supports 698:21 940:21
suppose 861:22
supposed 838:18, 20,
23, 25 840:3, 8 841:7
919:7 947:1
Supreme 773:12 937:23
surcharge 658:14
662:5, 6
sure 642:4 658:16
678:10 680:20 681:5
702:19 714:10, 10
719:1 720:12 726:5
730:8 745:15 750:17
751:13 753:7 755:24
767:10 769:7 781:14
789:25 796:9 799:15
801:4 804:21 810:10
815:13 817:19, 22
818:2 821:18 831:5
832:5 833:7 836:9, 23
837:19 838:12 839:3
841:10 848:24 857:6
858:4, 6 863:24 865:25
872:6 880:21 901:13
919:10 931:5 932:21
954:15 955:3 956:4
Surely 722:17
Surprise 834:23
surprised 813:5 844:24
surrebuttal 691:9
692:1, 20 693:24
695:15 702:2, 5 705:23
707:5, 15, 18 722:14
727:10, 15 740:8 745:6
748:6 753:21 754:15
764:10 781:10 783:2

787:17 941:13
surrounded 716:1
surveillance 839:14
survey 742:25 759:3
763:7, 9, 17, 20, 21, 21
764:13, 14 845:6 888:1
922:18
surveys 762:6 841:7, 8
844:9, 25 845:7
susceptible 905:16
suspected 895:14
sustain 794:15 813:7
sustained 716:11
777:20 792:21 794:7
Swingley 636:12
sword 854:6
sworn 636:1 691:1
739:24 797:22 835:2
system 641:4, 6 645:5,
14, 18, 19, 20, 21, 22, 24
646:1 655:20 664:7, 10
668:3, 4 780:4, 5 789:7
801:11 810:13 811:4
812:6 824:3 828:15
829:1, 18 832:8, 9, 11,
14 833:5, 8, 20, 22
837:10 838:24 839:8
840:10 841:10, 20
843:15, 17, 18 845:15
848:19 886:1 889:11,
19 895:11 903:21, 22,
25 906:7, 9, 11, 18
912:23, 23 915:3
916:10 919:8 923:21
926:20 929:7, 8, 9, 18,
19 931:11 932:8, 10
936:15 938:6, 12, 13
939:8 940:19 943:1
945:13 952:6, 8, 9
954:3
systems 645:4 664:2
788:5 789:6 836:11
837:3, 4, 7, 9, 16, 17
838:1, 9, 20 841:5
894:3 896:15 906:9
917:18 923:18 951:24

< T >
table 649:1 692:2, 3
821:5 838:17
tack 884:20
take 639:3, 4 642:17
660:3 690:8 708:6
710:11 718:5 719:6, 14,
15, 18 745:13 746:2
753:2 757:9 768:24
770:9 789:10 855:21
866:8 871:3 873:11

875:6, 14 879:19 892:5
895:13 899:1 914:16
916:1, 4, 9 920:16
928:8 937:17 941:3, 3
953:7 955:17
Taken 626:16 627:2
662:14 690:10 708:16
789:14 797:7 824:15
861:15 868:21 880:4
898:2 903:15 913:25
920:2 928:12 942:15
951:24 957:15 962:8
takes 660:1 907:1
940:13
talented 671:19
talk 649:24 650:6
661:18 676:12 700:5
726:9 755:3 764:24
767:9 783:24 786:5
789:25 794:13 805:15
825:9, 14 832:10 838:4
870:2 879:11 883:9
947:21 948:15
talked 649:3 702:21
735:13 785:1 805:4, 5
813:24 832:18 843:15
844:9 848:20 871:5, 22
881:15 888:1 909:4
914:25 922:4 949:6
954:18
talking 657:23 661:21
670:3 675:17 702:9
717:17 723:13 727:1
734:14 757:8 770:1, 2
774:12 781:11 783:14
784:15 803:3 813:23
883:10, 11 904:17
915:12 917:3, 8
Tar 880:22
target 759:11, 16, 20, 22,
25 760:1, 9, 15, 15
763:16 786:7 848:17,
23 849:2 865:2, 5, 6, 9
870:8, 9, 11, 13, 14, 18,
19, 21 873:8 874:15
943:12
targeted 786:18 841:17
873:17
targeting 698:16 829:6
targets 756:25 762:3
763:14 784:21, 24
785:2, 6 860:12 864:18
873:9
task 880:3 960:8
taught 923:5 928:17
Tax 695:4, 6 696:8, 20
716:5 718:6 722:25
723:6 744:3, 8, 8

769:22 773:19 815:2, 6
817:13 818:16 819:13
820:16 825:20 826:10,
16, 19 830:2 880:17, 21
881:2, 4, 14, 18 882:2, 4,
11, 11 883:21, 23
884:11, 23 941:9
taxes 814:19, 23
818:21 819:16 820:5,
18 826:1, 9, 9, 11 884:5
taxiing 867:23
Taylor 766:1 892:16
935:25
TCGA 697:8 716:12
814:9, 24
TCJA 696:22, 25
825:16, 23
team 769:4 775:25
776:9 784:3, 15, 17
785:12 886:4, 11
899:10 926:18 936:11,
13 937:7
tear 945:16
tech 887:23
technical 691:24
technologies 930:17
technology 664:2, 4
techs 894:24
tedious 772:17, 20
tell 643:14 720:12
726:7 729:9, 10 741:1
776:3 808:11 824:17
850:18 858:13 872:3
895:5 896:9 906:3
908:14 914:18 917:16
922:25 923:1, 2 928:17,
18, 18, 18, 20 936:20
telling 670:18 775:23
852:20 920:14, 15
925:17 945:4 946:3, 4
tells 822:16 824:16
temporary 918:2
ten 665:6 667:24
669:1, 4, 7 690:12, 12
695:20 748:22 750:24
752:9, 10 765:1 772:19
774:19 800:4, 5, 20
829:5 885:4 949:5
ten-cent 800:16
tend 725:12
tendency 922:9
tender 641:17 705:12
754:18 806:5
ten-year 807:24
term 718:20 917:7
944:22
terms 643:25 658:5
663:17 693:2 694:20

717:8, 11 718:24 721:9
809:25 836:8 869:12
881:18 957:4
territory 653:11 753:10
922:20
test 751:8 755:8
759:14 760:9 767:11,
17 772:1 773:6 774:11
793:12, 19 795:11
796:11, 12, 18 825:19,
25 826:2 828:14 829:7
881:11 918:11 934:19
940:4, 7
testified 686:12 724:21
741:7, 8 747:7 748:5
754:14 762:17 783:25
784:1 792:18 799:23
803:14 861:5 889:16
890:20 896:6 898:14
910:2 923:20 933:10,
25 935:17 937:9
938:16 940:11
testifies 636:1 691:1
698:11 739:24 797:22
835:2
testify 694:2, 19
814:13 862:24 927:8
936:8 941:16 951:21
960:3, 15
testifying 644:17
664:13 691:16 705:25
724:16 828:24 911:17,
18
testimonies 729:3
testimony 636:18, 19
637:3 638:19, 22, 23
641:19 642:2 643:4
645:2, 6 647:21, 24
649:7 650:5, 16 654:10
658:12 660:7 661:16,
16 664:11, 22 666:1, 4,
8, 13, 14 667:16 670:2,
6 673:6 677:4 683:10
689:22 691:9, 14, 17, 21,
21, 25 692:8, 9, 17, 20,
23 693:20, 22 694:9, 9,
21, 25 695:15 697:9, 10
699:8, 9, 11 700:7
702:2, 5 708:14 709:3
710:10 719:16 721:10
722:24 724:17 727:8,
11 733:7, 22 740:8, 12,
19, 22, 23 741:3, 12
743:10 744:1 745:6, 20
746:22 747:13 748:3, 6
752:20 753:3, 21
754:15 756:14 757:25
759:11, 19, 21 760:24

761:4, 15 764:10, 25
769:4 772:7 775:9
776:21 781:5 791:21
792:9 793:9 798:15, 22,
24 799:5, 9, 10, 14, 15
803:6, 8, 12 805:3
809:9, 10 810:20
815:23 823:16 827:19
828:4 829:4 836:3
846:16, 17, 18, 20, 24
848:12 854:24, 25
855:2, 14 857:8 859:3
861:7, 24 862:16, 21, 22
871:22 874:1 876:23,
25 880:15, 20 881:7
885:24 888:5, 19, 22
889:1, 2, 5, 22 890:5, 22
891:22 893:9 894:14
896:12 901:16 909:21
911:3, 11 924:22 925:2
929:7 938:11 939:20
941:7, 13 944:12 946:9
949:10
testing 810:25 827:21,
22, 23, 24 828:17
829:20, 23 845:9
893:14, 21 898:23
918:7, 8 934:17 935:24
tests 637:21 828:20
829:11
Texas 896:16
textbook 698:6, 8
Thank 635:18 636:4, 5
638:19 641:15 642:7
654:18, 19, 23 662:18,
22 665:18, 20 667:10
669:20 672:16, 19
674:1 675:5, 8 679:15
682:8 686:23 689:7
690:6, 7 691:4, 8 692:7,
12 700:5 701:22
705:11, 15 712:15
713:16, 18 715:16, 16,
20 719:25 721:2, 8
725:23 731:4, 7 736:25
737:3, 6 738:3 739:8,
11, 12, 13 740:2, 3
741:23 745:17 747:16
751:11 753:18 754:17,
20 756:24 767:9
777:22, 23 780:1, 24
783:17 790:3, 7 794:17
795:22 797:4, 25 806:5,
7, 8 807:1 808:20
816:24 817:19 827:12,
15 833:12 835:25
842:10 845:20 846:10
856:23, 24 857:1

867:15 869:14 872:12
874:12 876:8 877:19
887:2 900:12 901:20
903:1 911:12 918:18
926:3 928:22, 23 942:6,
11, 16, 17, 18, 20 949:20,
22 950:25 951:1, 4
953:12, 18, 19 955:1, 13
956:2 958:5 959:17, 19
960:11, 16 961:12
Thanks 712:2 797:3
804:24 825:5 834:4
835:5, 25 865:12 876:7
879:9 880:24, 24
885:15 891:13 925:25
927:13 961:4
theme 942:22, 24
theoretically 730:21
therms 755:18
thing 697:1 708:19
812:6 822:8 823:23
836:1 841:13 842:3
843:24 866:11 871:20
881:12 890:19 891:14
909:11 922:15 929:2
932:15 939:25 947:11
955:5
things 642:24 645:1
649:3 652:4 654:8
655:4 684:2, 16 693:10
696:3, 9 701:9, 11
707:13 714:16 715:12
755:1 764:1 768:23
769:17 778:16 781:23
791:6 793:4 800:15
802:11 805:7 809:11
811:25 825:10 827:23
833:8 838:16, 24
840:15, 23 843:3
845:16 857:13 881:4
884:9 913:15 923:8
925:19 932:12 933:9
941:9 943:15 946:11,
13 947:16 949:4
955:18
think 635:20 641:9
642:15 643:24 644:7
646:7 647:15, 19
649:25 650:1 655:20
656:10 659:11 661:15
663:15, 16, 17, 19 664:9
667:24 669:22 670:8,
12, 14 672:24 673:3, 11
680:22 681:3, 9, 18
683:7 685:8, 21 688:19,
20 689:20 690:8
693:14 694:5 695:13
699:5 700:2 703:17, 21

704:20, 23 706:17, 24
707:8, 13 708:19
710:21 711:6 715:9
717:16 718:8, 15, 15
720:7, 10, 12 722:3
723:18 724:1, 6 725:12
727:9 730:23, 23
734:18 735:3 738:20
739:6, 14 744:5, 17
746:7 747:25 751:2, 9
752:24 756:9 758:19,
19, 21 763:7 766:20
769:17 772:6 776:25
777:5, 17 778:11 779:2
780:1, 8 787:13, 16
790:2 796:23 797:10
799:16, 19 800:11
801:8, 14, 18 802:2
803:2 804:4 807:11, 12,
18 808:15 809:14, 16,
20, 24 810:5, 11, 12, 21
811:24 813:10, 25
814:24 815:2 819:14
821:8, 14 822:5, 8, 18,
21 823:15, 24 824:12
825:2 826:10 827:8
829:15 830:11 831:16
832:14 834:5 835:6, 15
842:7 845:2, 3 849:19
852:1, 20 853:3, 12, 18,
21 854:9 855:13
856:19 859:16 863:22,
23 866:6, 11 867:11
868:21 871:11, 24
872:16 874:13 880:1,
25 881:1, 11, 21 885:12
890:1 896:2 897:3
901:14, 17 904:19
906:25 909:2 910:18
912:6, 16, 21 915:14
917:10 919:9 921:12,
13, 15 924:9 925:3, 6,
23 927:25 939:15
941:23 942:23 944:19
946:22 947:9 948:8, 13
949:6, 7, 9, 20, 25
953:24 954:4, 25
956:11, 19, 25
thinking 726:9, 22
735:22 810:14 959:25
thinks 906:16
third 649:14 759:3
763:17 837:24 868:1
890:19, 19 922:7
923:25
Thirteen 904:22, 23
Thirty-nine 931:24

951:16
thorough 955:23
thought 651:20 658:4
724:17 726:11 810:9
811:14 813:4 818:22
838:3 942:22
thoughtful 955:23
thoughts 928:9
thousands 819:25
933:17 941:19, 20
threat 839:20 890:6, 8
896:3
threaten 839:7
threats 838:23 839:9
840:9 889:15, 19
three 635:5 637:21
639:18 661:10 668:10,
14 679:20 692:4
695:22 696:16 697:4, 7
706:14 712:8 722:8
760:13 764:16 781:24
782:5 795:17 797:9
807:12 827:25 828:9
844:16 847:1, 3 848:22
857:9, 16 875:2, 3
877:14 879:22 880:2
881:3 882:7 886:15
893:21, 22 896:13
903:17 910:19 913:21
918:24 919:3, 12, 16
925:11 927:7 928:25,
25 933:15, 20 935:22
938:23 939:20 942:7
943:9 956:7, 16 958:5
959:16 960:7, 8, 8
three-year 746:19, 23
thrown 870:10
ticket 869:7, 13
tie 917:13
tightening 917:23
time 635:9 641:16
643:16 644:2 651:11
654:18 656:8 657:2
658:21 662:14 666:18
668:11, 12 669:23
670:3 680:15 689:15
695:12 696:17 697:5
698:1 703:5, 5, 11
704:6 706:18, 19, 24
713:4 715:1 725:18
732:8 739:4 745:13
754:18 762:10 769:5
770:11 776:20 777:22
796:15 799:3 800:16
803:1, 3, 6 804:18
809:21 818:15 823:22
828:24 833:24 837:6, 9
844:22 848:1 850:8, 13

851:19 852:25 854:11,
20 856:5, 13 860:19
864:11 866:8 867:21
868:2 869:13 878:18
879:14 880:1, 9 886:23
888:10 897:20, 24
904:4, 8 913:4, 12, 14
921:25 925:24 927:22
928:24 930:13 933:16
934:2 935:12 938:22
942:3, 7, 8 944:10
946:18 948:18 951:8,
17 952:19 953:11, 13,
18 955:14 956:5, 15
957:5, 6 958:6
times 641:6 658:7
728:8 731:22 805:4, 5
865:19 866:2 871:7
900:3 919:12 922:10,
11 948:14 959:25
962:11
timing 697:2
tiny 727:1, 1
tired 903:23 951:12
today 637:13 647:4
667:17 669:25 670:7
691:22 692:9 693:22
708:16 727:9 740:14
753:19 799:6 805:6
807:24 818:13, 15, 23
820:14 824:7 836:1, 4
854:4, 11 862:2 863:7
875:24 881:1, 10
883:10 888:24 905:13
906:21 914:15, 25
923:10 924:20, 23
925:13 928:2 935:4
959:15
today's 667:22 914:13
924:25
told 928:15, 17, 19, 21
tools 703:20
top 700:23 720:8, 11
763:6, 6, 8 783:4
819:20 820:22 831:5
900:19 910:10 948:5
topic 646:6 674:2
topics 647:18
total 660:24 662:7
813:17, 18, 25 814:24
818:18 819:12 820:13
826:15 857:19 858:5
866:3 874:1 875:5
878:14 886:17 887:15
894:25 903:4 938:12
948:4
town 824:15, 17, 18, 21
828:8 829:6 868:10

909:7 910:21, 21, 22 911:6, 9 towns 828:1, 5 910:20 919:10 925:11 935:23 town's 829:1 track 795:2, 3 887:21, 23 888:2 906:7, 9 tracker 658:14 780:5, 8, 10 791:8, 12, 23 tracking 821:2, 3 trade 740:9 traded 913:10 tradeoff 655:24 656:11 traditional 665:14 trail 913:24 train 769:4, 5, 6 training 866:13, 22 trains 747:24 768:25 TRANSCRIPT 626:12 transferring 658:25 659:8 transmission 836:10 837:4, 6 915:8 transparency 871:9 929:23 transparent 871:10 929:24 947:3 953:10 transportation 741:17 747:23 850:1 856:5, 8 869:6 travel 767:24 769:11, 13, 18, 25 851:23 856:17 869:10 940:11 traveling 770:15 866:20 Travis 633:22 764:11 879:15 880:9 treasury 668:7 700:13 701:7, 10, 11, 16 708:8 treat 697:19 715:11 treated 771:13 treating 804:5 treatment 794:10 880:17 trend 700:22 701:2, 3 781:24 782:1, 1, 2 795:1, 4 tricky 657:22 tried 714:24 774:24 862:18 887:10 894:14 896:11 908:13 909:8 910:18 911:2 912:7 trip 855:25 triple 649:12, 16 663:14 670:22 672:7 676:24 677:1, 8 678:22 689:2 700:1 711:10, 25 714:20 715:4 718:14 720:7, 7, 19, 23 724:7,	14 725:5, 5 732:4, 9, 13, 23 733:3, 9, 25 734:3, 6, 8, 10, 10, 10 737:13 trips 866:24 TRJ-5 881:8 884:9 TRJ-6 881:8 troubling 801:5 trucks 789:19 true 648:20 654:7 675:21 696:12 710:4 782:16 832:4 888:5 913:24 931:4 true-up 800:17 truly 890:3 898:7 trust 871:9 truth 852:20 951:20 try 651:17 707:12 738:15 755:1 776:20 862:14 877:13 880:23 897:24 909:16, 18 913:3 922:23 925:11 947:24 953:3 trying 687:10 724:16 727:17 734:25 736:15 746:4 758:17 811:17 819:15 859:3, 24 862:12 863:19 864:7 867:2, 6 868:21, 24 873:23 874:8, 25 875:21, 23 885:2, 4 909:23 919:7, 9 922:1 923:9 925:19 turn 647:18, 21 682:11 700:9 852:16 868:16 888:18 turned 852:15 868:12 turning 678:20 703:25 843:13 Tuxedo 630:7 tweak 730:1 twice 713:13 748:8 811:6 827:7 864:16, 17 two 667:15 668:8, 19 694:17 704:8 709:21, 22 710:5 711:9, 11 713:11 716:12 719:5 724:10 727:2 733:25 736:4 737:18, 20 744:1 753:2 754:6 755:7, 10, 12, 15 757:23 779:3 788:16, 20 789:5, 9, 11, 11 791:13, 15, 20 792:17, 17 797:9 800:15 807:14 820:20 858:12 868:5 869:16 877:6 881:3 887:14 899:10 903:17 906:9 907:2 908:16 915:10,	10, 11 918:23 919:1 920:11 925:6, 20 938:3 two-tenths 725:19 two-year 746:22 Tyndall 630:18 type 658:19 659:7 660:12 661:3, 22 663:23 664:10 746:1 774:5 794:24 801:21 802:19 805:20 809:12, 22 824:18 826:12 828:6 886:18 887:12 896:24 903:5 912:4, 15 913:21 918:16 923:1 946:19 types 781:23 823:2 920:4 typewritten 962:7 typically 656:22 660:17 663:22, 25 681:23 687:13 856:6 948:19 < U > U.S 668:3 Ullin 919:11, 20, 22 ultimately 765:12 898:4 Umm-hmm 708:24 720:25 732:10 814:10 820:19 uncharacteristic 955:17 uncollectible 656:2, 4, 8, 16, 18 undergraduate 637:18 underground 886:22 887:16, 25 957:13 underlying 854:18 understand 666:18 713:3 726:15 733:22 743:18 745:19 751:22 752:16, 18 759:13 763:14 765:4 769:7 803:14 819:8, 15 821:15 822:20 827:19 837:23 839:9 844:15 858:14 860:1 871:13 900:18 906:17 908:13 909:25 911:10 940:23 understanding 635:7 644:23 647:11 688:21 758:14 760:10, 16, 17 761:12, 17, 19 786:6 796:17 806:22 830:20 838:19 861:18 862:14 889:11 958:14, 17 understood 830:17 874:14 unfair 660:16	unique 671:15, 25 688:16 938:18 units 702:3, 6, 7, 8 713:5 750:18 771:18 806:13, 14 universities 738:22 university 739:1 unknown 828:6 910:21, 22 912:17 914:9 unknown, 910:22 912:17, 18 unknowns 824:5 unnecessarily 802:4 unrated 734:1 unreasonable 651:20 unregulated 715:12 unsaid 704:5 Unsicker 630:15 631:6, 12, 22 632:3 635:8, 17, 18 636:5, 8 641:16, 23 642:3 661:14 672:19, 22 675:5 680:18 681:13 713:18, 21 715:16 737:6, 9 739:8 750:6 778:3 795:24, 25 833:14 834:11, 14 842:18 848:6 853:7 863:11 872:20 877:23 879:6 882:24 888:12 908:1 927:16 949:22 953:19 961:9 unusual 703:4 update 666:22 667:5 773:19, 23 774:1 782:11 825:25 900:8 updated 681:14 708:1, 15, 21 773:18 899:5 updates 773:1, 2 updating 761:4 773:16 919:7 upfront 730:3 834:1 866:7 upgraded 919:2 upper 706:2 ups 746:3 857:22 upward 703:9, 23 782:1 urge 935:13 942:2 952:19 956:22 usage 657:8 use 653:21 674:3 676:3 699:22 701:13 704:19 707:10 721:25 725:22 729:1, 2, 18, 22, 23 730:13, 14, 19, 22 735:4, 6, 9 747:23, 24 748:23 757:21 761:9 768:6, 7, 8 769:11 782:21 788:10 791:12
--	---	--	---

793:12, 16, 25 795:2, 3
805:11 824:10, 11
840:22 849:21, 23
851:20 856:18 860:23
865:19 866:2, 17 867:4,
10 871:23 872:1, 4, 8
891:24 903:25 912:5
956:9 957:21
useful 698:2 748:21
749:3, 5 751:3 790:23,
25 793:5, 20
users 655:23 656:24
Usually 665:4
Utilities 626:5 628:3
638:18 642:13 646:22
648:2, 6 649:4, 8, 15, 21
661:13 663:22 664:15
667:22 672:13 673:19,
20 675:19 677:4, 10, 11
678:3 683:3, 12 685:4,
12 688:16 689:4 695:8
696:20 699:18 702:22
712:4, 12 716:9 723:5
731:14, 24 732:8 733:2,
8 734:14 736:3, 21
738:1 743:2 754:25
762:1 763:7, 18 776:23
786:22 950:7, 18
952:13, 15
utility 638:7, 10, 14, 16
639:7, 12 640:3, 8
643:17, 17, 21 644:1, 2
645:4, 5, 14 647:3, 15
652:21 653:10 656:2, 3,
18 657:2, 19, 21 658:1,
2, 8, 20 659:4, 7, 13, 23
660:5, 21 661:2 662:10
663:7, 10, 25 665:1, 17
667:2, 4, 16 668:9, 11,
18, 25 669:3, 6, 11, 12,
18, 18 670:4, 14, 19, 21,
22 671:4, 5, 12, 15, 25
672:1, 2, 7 673:22
674:6, 8, 16 675:4
676:17, 24 678:9, 24
680:14 681:23 683:6, 8,
25 687:9 688:8 689:5
690:4, 5 699:18 704:6
713:2, 23 714:18 716:6
732:12 736:1, 22
738:21, 23 749:3 753:9
769:2 775:8 787:21
796:12 798:7, 11 802:4
831:10 855:5 856:19
859:14 860:6, 17 867:8
872:4 937:3 950:7

utility's 639:8 640:5
643:12 656:7 658:23
659:13 665:10 733:25
utilized 930:3
utilizing 938:12

< V >
vacuum 659:18
valid 647:2 828:19
Value 652:10, 15
703:25 704:4, 4, 5, 6, 11,
12, 14, 15, 16, 17 705:2,
6, 7, 8 750:20
valves 922:3
variable 646:13, 20
647:13 655:19 656:23
940:18
variances 796:20, 21
variation 719:14
varies 870:23
various 639:17 649:4
654:10 655:10 671:21
857:12, 22
vary 701:7, 8, 8 868:10
vast 827:2
vehicle 746:10 753:22
789:18
vehicles 746:18 766:14,
15 948:11
vendor 782:7
vendors 782:3, 4
verbally 865:24
verbatim 962:8
verifiable 899:1
verification 894:13
verified 915:14
verify 663:3
version 681:14 740:9
versions 639:18
versus 672:10 699:1, 5,
12 700:13 702:6, 7
703:2 718:4, 5, 5 754:7
768:8, 9 786:1 811:15
873:3, 7, 8 895:16
906:4 912:8, 8 919:20
921:2, 4 923:3
vice 893:3, 7 894:7
934:12 936:7
Victor 632:14 797:14,
16, 21 798:21 807:7, 21
808:15 809:1 825:5
833:19 881:14
view 696:19 752:13
780:3 802:14 945:14
viewed 943:12
views 701:19
vintage 823:7 893:20
894:3 898:24 910:23,

23 912:18, 19, 25 917:4,
4, 6, 8 924:7, 9 925:7, 9,
21, 23 935:23
vintages 828:10
visiting 910:3
voir 852:5 887:1, 5
888:3
VOLUME 626:14 627:1
772:15 807:10
volumetric 655:15
657:8
vulnerable 845:13

< W >
wait 700:10 741:4, 6
924:4 934:24 937:15
walk 755:23 901:25
walls 945:16
wall-to-wall 897:17
want 642:4 644:6
646:6 647:18, 20
649:24 658:10 666:10
673:11 675:12 676:12
682:11 687:7 695:9
699:4 701:1, 13, 14
702:15, 16, 19 703:19
709:3 722:6 726:5
730:1 731:11 736:21
741:4 745:15 755:23,
25 756:22 758:10, 13
763:22 769:7 774:2
777:10 779:6 780:6, 9
783:1, 24 786:4 787:18
791:18, 21 796:6, 9
803:12 805:15 811:5
812:5 823:20 825:14
826:6, 21 834:12 851:7
852:6 853:1, 20 865:25
866:7 873:12 880:1
888:18 889:4 904:16
908:23 909:23 913:21
916:8 917:15 928:23
929:5, 11, 12 930:1
931:1 932:10 933:7
935:15 938:3 941:2, 21
944:17, 22 945:5
946:10, 11, 12, 14, 15
947:10, 16, 17 949:5, 16,
17 953:2, 4 955:3
959:17, 19 960:11, 16
wanted 736:1 737:10
751:3 781:16 785:10
817:19 836:3 841:25
853:10 893:18 912:4
wanting 724:1 871:8
wants 700:10 724:6
748:22 762:22 770:9

787:12 796:7 830:18
911:15 933:25
Ward 627:15 962:9
warehouse 920:18
warfare 951:9
waste 638:11 664:16
775:8
wasting 830:1
water 638:11, 11
664:16, 16 695:8
896:25
way 660:25 662:2
671:7 675:1, 4 695:22
697:23 698:3, 18 700:3,
25 703:17 704:9
713:15 714:1 719:9, 9
722:5 724:12, 24
726:10 727:12 729:19
730:13 736:11 738:8
749:1 750:18 752:10
754:9 783:4 784:8
789:9 802:22 804:5
811:24 815:13 845:6
850:14, 15 852:13, 16,
17, 17, 18 854:15
860:22 871:18 880:25
891:6 892:24 908:13
913:7, 22 925:10 930:3
935:3 938:9 944:24
946:25 955:10 958:1
ways 702:14 760:6
822:7 826:7 918:2
weaker 682:20 683:21
weather 794:25 795:1
916:19, 23 917:13
940:22
Web 906:15
website 719:7
week 866:4, 5 867:3, 4,
9
weekend 958:7 959:22
weeks 907:2
weigh 681:3 824:1
weighed 686:4
weighing 841:17
weight 689:13 854:14
welcome 834:22
Well 645:12 646:20
648:20 649:19 651:3
653:6 655:16, 18
657:16 658:21 659:22
661:7 665:2 670:12
675:17 676:11 677:3
678:4, 11, 17, 23 679:10,
17 680:25 684:11
685:1, 18 689:2, 20
693:12 695:8 696:14
697:22, 24 698:7

699:17 703:1 704:3, 25
705:2 707:20 708:10,
19 709:23 710:19
713:8 714:12 716:20
717:18 718:11, 12, 14
722:11 723:11 725:3
726:19 728:13 729:2
731:13 732:3 733:11
738:2 741:15 744:21
746:10 747:18 748:17
752:6 755:12, 17 756:5,
5, 8, 21 757:23 758:8,
10, 16 759:11 764:24
765:3 767:6 769:20
773:5 774:23 776:11
779:3, 6 780:13 781:14
783:13 788:19 790:22
791:6, 10, 14, 18 795:17
799:5 801:19 802:10,
21 807:20, 23, 25 810:7,
9 811:2 819:5, 14
823:17, 23 826:10
827:22 828:18 830:11,
17 836:19 837:15
838:3 840:7 841:4
843:21 844:13 853:4, 9
854:7 858:19 859:4, 23
865:1 866:6 876:4
880:1 882:10 884:20
885:23 901:25 913:5
916:17 922:3 931:24
953:17 954:10 955:16
956:4 959:20, 23
wells 839:5
went 651:3 668:10
677:3 696:4 732:19
734:10 746:16, 20, 21
747:1 749:16 765:21
815:16 857:20, 24
863:22 897:21 908:7
we're 644:7 646:7
647:19 657:22 676:18
678:1 702:5 707:8
717:17 734:13, 14, 14,
25 735:23, 23 741:2
749:10 758:21 765:9
766:20 767:11 770:1, 2
771:12, 21 773:6
777:17 792:24 797:8
805:10 810:10 814:24
819:19 820:25 821:2
824:6 833:8 864:9
865:25 866:19 869:4
870:8 871:16 875:7, 14,
14 879:16 881:6, 9, 9
893:20 906:5 907:19
909:22 915:12 917:7
919:21 921:15 922:16

924:2 925:14, 15, 19
927:19 931:11, 23
932:2, 3, 6, 7, 13 933:3,
22 934:18 935:3 946:4
947:1 949:13 951:16,
19, 23 952:6, 19, 20
953:7 954:15, 19 955:9,
25 960:9
we've 696:8, 15 729:7
773:11 791:20 797:9
800:14 801:5, 14 808:7
809:8 843:15 849:2
850:13 852:12 857:17
858:7, 21 869:10 870:1,
7 872:16 887:10
894:14 899:24 903:17
909:4 922:23 924:8
925:22 927:7 929:12,
18 932:12 933:15
939:2 948:10, 11, 12
949:6 952:25 955:6
956:20
wheel 932:16
whichever 845:5
widely 652:21, 22
willing 667:19 702:24
703:14 723:20
windfall 819:18
winter 896:14, 21
897:16 916:19, 19
Wisconsin 673:17
684:23 685:5, 19
686:19, 20
wisely 848:24, 25
wish 666:11 721:23
947:15
withdraw 852:19
withdrawn 801:14, 17
witness 635:8 636:3
654:19 667:6 670:2, 16,
16 679:7 690:14, 19
691:3 731:20 739:13,
15, 19 740:1 749:8
756:15 761:19 777:23
783:23 785:23 792:18
794:6 797:13, 18, 24
813:24 814:8 815:12
823:16 834:16, 23
835:4, 8, 13, 17 844:9
847:10 849:6 852:5
853:11 874:17, 23
875:3 876:8, 14 878:2,
5 879:22, 24 880:7, 16
887:1 901:20 903:24
909:9 912:6 913:11, 17,
23 915:6, 22 916:3
929:3 938:16 940:21

941:23 950:10
witnessed 660:15
WITNESSES 631:3
633:8 694:19 696:8
698:14 740:20 768:2
801:6 809:9 816:7
822:21 853:13 895:20
928:25 932:1 938:24
939:2 942:11, 12
959:23 960:14
witness's 794:4
wondering 807:6
959:12
word 718:25 719:6
802:2, 4 941:11
words 913:8
wore 836:1
work 637:17 659:2
688:22 697:5 746:18
751:16, 18, 22 753:12
774:19 787:16 789:19
795:15 807:14 829:25
830:4, 10 832:2 837:5
843:13 859:16 863:24
884:3 894:8 900:7
908:21 912:12, 13
914:5, 10 930:1, 14, 18
931:1, 8, 9 932:4, 10
935:6, 7 938:15 942:4,
21 944:14 948:11
952:6, 15, 21 953:7
958:4 960:7
worked 637:24 716:21
733:13, 14 763:23
798:12 908:11 937:3
946:25
working 696:18 707:3
720:11 757:10 781:6
782:17 830:9, 13 878:2
893:1 898:24 920:25
925:15 932:18, 20
933:18, 20 946:21
works 698:10 726:11
796:18 833:6, 7 860:22
869:10
world 688:16 955:8
worries 921:8
worry 703:19 719:5, 9
724:11, 12, 15 957:16
worse 880:23 930:19
952:5
worst 930:4
worth 687:19 795:17
924:21
wrap 783:23 880:3
write 695:18 799:21
written 838:14 894:19

wrong 700:14 722:8
726:14 784:2 814:8
861:14 864:5, 6
wrote 784:2 864:1, 4
947:16
Wyoming 932:18

< X >
x's 692:4

< Y >
Yeah 652:4 664:13, 21
673:14 674:5 677:14
680:2, 8, 13 681:7
688:21 692:3 694:23
697:1 701:24 711:6
712:17 718:5, 8 720:15
727:21 728:16 732:7
734:9, 12, 16 762:16
766:20 767:22 770:6
773:21 774:12 777:19
784:18 785:8 786:16
787:24 791:10 794:8
795:18 808:1 813:24
824:16, 25 828:14
832:7 833:5 841:1
855:11 866:25 868:14,
15 869:4, 10 870:5
879:20, 24 884:25
887:2 901:16 903:10
904:7 911:1 951:7
958:11 960:22
year 648:18 666:25
709:17 710:17, 24
711:13, 19 716:11
751:9 755:8 759:14
760:9, 13, 14, 15 767:12,
17 772:1 773:6 774:11
782:10 793:19 795:11,
20 796:11, 12, 18, 25
810:22 814:17 825:19,
25 826:2 830:19
847:18 850:5 857:10
859:19, 21 866:2 901:8
914:8, 9, 9, 18 915:21
920:11 922:16 923:22,
24 929:25 935:18
936:20 939:14 940:4, 7
943:7, 18 944:5, 6, 7, 8
947:1 949:18 957:19
years 637:23 648:3, 17
661:11 664:14 665:6
667:18, 24 669:1, 4, 5, 7
697:25 706:14 709:22
710:5 714:25 717:3
730:24 739:5 743:11,
11 748:22, 25 750:24
756:2 760:13 781:25

782:5, 18 786:15 789:3
793:12 795:2, 9, 17
798:14 807:12, 14
810:3, 3, 4, 16 829:13,
16, 16 838:2 875:2, 3, 6,
14, 17, 22 881:3 886:15
893:1 920:11 923:19
925:16 929:7, 8 930:2
938:13 952:4, 4 954:1
Yep 749:12 753:5
757:2 769:9 777:25
816:12 823:4 825:17
826:15, 24 857:6
859:10 860:1 863:21
869:4 876:3
yesterday 704:3, 8
705:19 712:3 713:8
714:15 748:5 752:23
808:13 813:4 834:20
878:16 911:2, 3
yield 668:14, 16 695:25
696:2, 3 698:20 701:10,
10 703:17 708:8
727:22
yields 668:7, 10, 13
698:22 702:20, 23
York 779:21
young 960:2

< Z >
zero 659:6 787:8
807:14
ZUGER 627:16