

1 BEFORE THE PUBLIC SERVICE COMMISSION 2 STATE OF MISSOURI 3 4 TRANSCRIPT OF PROCEEDINGS 5 б Workshop 7 March 23, 2021 8 Jefferson City, Missouri 9 WebEx 10 Volume 1 11 12 In the Matter of the Cause) of the February 2021 Cold) File No. AO-2021-0264 Weather Event and its Impact) on Investor Owned Utilities) 13 14 15 16 17 RON PRIDGIN, Presiding REGULATORY LAW JUDGE 18 RYAN A. SILVEY, Chairman WILLIAM P. KENNEY 19 JASON R. HOLSMAN SCOTT T. RUPP, 20 COMMISSIONERS 21 22 23 24 REPORTED BY: Beverly Jean Bentch, CCR No. 640 25 TIGER COURT REPORTING, LLC

AO-2021-0264, Vol. I

AO-2021-0264, Vol. I

1	I N D E X	
2		Page
3	Presentation by Spire Missouri	б
4	Presentation by Ameren Missouri	32
5	Presentation by The Empire District	
б	Gas Company and Liberty Utilities	
7	(Midstates Natural Gas) Corp.	43
8	Presentation by Summit Natural Gas	
9	of Missouri, Inc.	51
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

AO-2021-0264, Vol. I

PROCEEDINGS

1

2 JUDGE PRIDGIN: Good morning. We are on the record in today's presentation In the Matter of the 3 Cause of the February 2021 Cold Weather Event and its 4 Impact on Investor Owned Utilities. 5 This is in File No. 6 AO-2021-0264. I'm Ron Pridgin. I'm the Regulatory Law 7 Judge assigned to preside over this presentation. It's 8 being held on March 23, 2021, and it's being held over 9 WebEx. The time is 11:06 a.m. This is a little different procedure than we 10 11 would usually do. This is a non-contested case. It's 12 not adversarial. Therefore, counsel is not required. The point of today's procedure is to simply get some 13 14 information from Missouri's gas utilities and to allow 15 time for bench questions and for Staff questions. 16 If you'll recall in prior orders, Staff has a 17 report due I believe April 22, and parties who listen in 18 today and would wish to file comments on today's 19 presentations may do so by April 8. Today's procedure 20 is going to be hearing first from Spire and then 21 allowing time for bench questions, Staff questions, and 22 then we will move to Ameren Missouri, then Liberty and 23 then Summit. 24 Before we hear from Spire, let me first see if

25 we have any questions on today's procedure. All right.

Hearing none. Is there anything from the bench? I see 1 2 Mr. Chairman is with us. I think Commissioner Rupp. Is there anything from the bench before we hear from Spire? 3 CHAIRMAN SILVEY: Yeah. Thank you, Judge. 4 А 5 few brief remarks. First of all, thanks to the 6 utilities for coming to present us this information. Ι 7 mean, the Commission like everybody else around the 8 country knows that there was an unprecedented weather event last month around, what was it, Lincoln Day to 9 Presidents' Day. We've all heard about the 10 11 unprecedented impacts on the energy sector. You know, 12 we had RTOs like SPP going to a level 3 and it required 13 load-shedding which was something that I don't think 14 they have ever had to do before. It wasn't just the 15 power sector that was impacted. You know, the event 16 also impacted the heating sector as well. And you know, 17 I think that the impact on the natural gas utilities and 18 their customers is not yet fully understood. 19 So when the Commission opened this 20 investigatory docket, the intent was to acquire more information about -- that would allow the Commission, 21 22 customers and other stakeholders to have a clearer

23 picture of what the cause and the impacts of the cold 24 weather event were; and as the Judge mentioned, Staff's 25 report is due on April 22.

> TIGER COURT REPORTING, LLC WWW.TIGERCR.COM 573.999.2662

AO-2021-0264, Vol. I

So as a Commissioner, I would like to help 1 2 customers and the utilities address the situation the best way possible. To do that I would like to know from 3 the perspective of the natural gas utilities first of 4 5 all what happened, what was your response, what are the 6 repercussions from the cold weather event that still 7 cause your concern or still need to be addressed, what 8 are the possible or likely impacts on customers and are 9 there any impediments to you considering any recovery 10 alternatives that could help you and the customers. So 11 perhaps to be more blunt, you know, what do you want me 12 as a Commissioner to know and in your opinion what 13 actions should the Commission take, if any, and what are 14 the best paths forward. That's the purpose of this 15 hearing and those are my interests today. So thank you 16 again for participating. Thank you, Judge. See if any 17 other Commissioners have comments. 18 JUDGE PRIDGIN: Mr. Chairman, thank you.

19 Again, if I could remind everyone to put your speaker on 20 mute unless you are intending to speak. That will cut 21 down on a lot of background noise. Anything else from 22 the bench before we proceed to Spire? All right. Very 23 qood. I believe, Mr. Weitzel, I believe you intend to 24 present on behalf of Spire; is that correct? 25 MR. WEITZEL: That is correct.

> TIGER COURT REPORTING, LLC WWW.TIGERCR.COM 573.999.2662

JUDGE PRIDGIN: All right. Whenever you'reready, sir.

MR. WEITZEL: All right. Good morning,
everyone. On the call from Spire is also Matt
Aplington, our General Counsel, George Godat, our Vice
President of Gas Supply and Operations and Justin
Powers, Director of Gas Supply.

8 Chairman, appreciate the insight. I think we 9 are going to address most of those comments in this 10 presentation, but we know we'll get those questions if 11 we don't. I think we'll be able to address them. We 12 appreciate the questions that are brought about in this workshop. We like that there's focus on the customers 13 and solutions to assist them. So hopefully we get some 14 15 of those out there for everyone to talk about.

Just to let the Chairman and the Commission 16 17 know that -- Commissioners know that we will continue to 18 work with the technical staff, support them in 19 understanding Spire's preparation and response to this 20 event. Quick touch base on Spire. If we could go to 21 slide 3. Spire serves 1.2 million gas customers in the 22 state of Missouri mostly on the east and west side of 23 the state, larger areas St. Louis area, Poplar Bluff, 24 Joplin area, Kansas City and Metro and St. Joseph. 25 I think this workshop and this presentation

> TIGER COURT REPORTING, LLC WWW.TIGERCR.COM 573.999.2662

1 will highlight how we're focused on reliability, and 2 again I'm glad that affordability is going to be talked 3 about and addressed with some proposals and we think the 4 Commission can help us out with.

Next slide. Why we're here. You know, we 5 6 know it was cold, especially those on the Kansas City 7 side of the state, the western side of the state. Τf 8 you look at this map, this is 7:00 a.m. on the 16th. 9 Our peak day was February 15, but the gas day goes into 10 that morning of the 16th. And you can see Kansas was 11 really cold, Oklahoma, parts of Texas. And that's where 12 a lot of this production is sourced from and then transported over to Missouri. You could also see that 13 14 Missouri was pretty cold with some of its temperatures.

The Kansas City area had a high of -1, a low of -10. St. Louis was a high of 4 and a low of 0. For the month in February, we saw heating degree days 33 percent colder in the Kansas City area and about 34 percent colder in the St. Louis, east side of the state. That as this investigation is termed it is a weather event and it spanned for most of the Midwest.

22 So with the cold we saw some operational 23 issues mostly on the supply side with the producers out 24 in the field. In the Oklahoma, Texas, Kansas, a lot of 25 these wells are not winterized which we see in other

> TIGER COURT REPORTING, LLC WWW.TIGERCR.COM 573.999.2662

1	parts of the country like the east coast and the
2	Marcellus. We were starting to witness freeze offs
3	where wells were being shut in. This was causing
4	concerns and stress with the producers and marketers.
5	They were issuing force majeure notices, which were
6	saying hey, we're being shut off, we're ceasing
7	operations for the time being. When those started
8	happening, we also saw constraints on interstate
9	pipelines that supplied Missouri.

10 Southern Star is the main pipeline serving the 11 west side of the state, Kansas City, Joplin area. 12 Enable Gas Transmission got critical and needed a human 13 needs advisory where you have to file applications or affidavits saying that this is for human needs. 14 And 15 then MRT on the west side of the state had OFOs. Aqain, 16 we were at a critical state with producers and marketers 17 and also interstate pipelines.

18 The Chairman hit on some of this, but the 19 Southwest Power Pool had some unprecedented times. 20 Coldest temperatures the Southwest Power Pool have seen 21 in decades, high demand on the electric and also high demand on the natural gas. This kind of strained the 22 23 whole energy complex with extra gas to turn on for 24 generation and some curtailment of wind generation. And 25 we saw rolling blackouts in the state and other areas in

1 SPP.

Next slide. Here's some power prices, hourly power prices that we saw in SPP, and we got a natural gas price following this. It just kind of shows (muffled audio) been a part of. Usually our power is \$30 a megawatt. I couldn't even fit it on this graph of hitting almost \$20,000. Just sky high prices.

8 Next. Of course, corresponding with power 9 prices is usually gas prices. So during the I call it the polar vortex back in 2014, 2015, we saw prices in 10 11 \$40 to \$50 and we thought those were the highest prices 12 we've ever seen or would ever get to. That was in 13 2014-15. Come polar vortex 2.0 we were seeing 200, 300, 14 \$600 price for gas when usually we're paying \$2 to \$3 15 per MMBTU. So this supply shut in, supply constrain 16 increased demand really had an impact on price. I wanted to point out a couple bases here. 17

18 So Southern Star SSC, again that's the primary 19 pipe serving the west side of the state. Those are some 20 of the highest prices in the Midwest Midcontinent So that's where a lot of this strain is those 21 market. 22 utilities that are provided with Southern Star or 23 Panhandle Midcontinent pricing. On the east side of the 24 state, just last year we were able to bring in some new supply from the Marcellus and a new interconnect into 25

1 the east side of the state. And you can see with Rex 2 Zone 3 that that production wells and bases pricing was 3 substantially cheaper than some of the Midcontinent 4 pricing.

5 Next slide, please. So this was, you know --6 thank you. This was not just a Missouri issue. I've 7 got a couple headlines here or financial filings. So 8 this February headline from CenterPoint, this is from 9 Minnesota. This isn't even from their Arkansas, 10 Oklahoma or Texas utilities. This is up in Minnesota. 11 So this weather event, these increased prices were felt 12 in many different areas of the country and impacted 13 those natural gas prices. Atmos and ONE Gas are very 14 large gas utilities and they've estimated billions of 15 dollars spent in the natural gas market just during 16 these weeks or months in going out to get financing for 17 those.

18 The good news is that hopefully this was just short lived, which we believe it's over. Just days 19 20 after the weather event prices moderated. You know, 21 natural gas is still a very affordable abundant energy 22 source. This is trending around \$2.65 MMBTU. This 23 winter might get above \$3 for one month, but overall the 24 strip, the winter strip for this upcoming winter is under \$3. Again, some of my data might be a little 25

dated of when I pulled this, but it still shows you 1 2 there's still value and affordability along the curve. All right. So this map just has a couple 3 4 pipes that serve predominantly Spire service territory. 5 I just want to kind of highlight that Missouri is a 6 pretty captive state when it comes to interstate 7 pipelines. We basically have predominantly one pipe 8 serving the west side of the state, one pipe serving the 9 mid part of the state and we used to have just one 10 pipeline serving the east side of the state until we had 11 buildout with steel pipeline there. When you're 12 captive, you're limited to where you can buy gas. You 13 can just transport basically on one pipeline. And 14 supply diversity is important. And we think that will 15 help navigate some of these price spikes that we've seen 16 now a couple times in the past decade. So I think these 17 aren't once in a lifetime events. These are once in 18 every five to seven year events. 19 I wanted to highlight also the Marcellus and 20 Utica shale as gas has been talked about for years now 21 for the past decade. That shale development has really 22 transformed the natural gas market and supply source. 23 When you hear we have gas for a hundred years, that is

25 account for a decade ago.

24

TIGER COURT REPORTING, LLC WWW.TIGERCR.COM 573.999.2662

basically a big chunk of new supply that we didn't

And that large supply source has also transformed pipelines. Basically every pipeline east of the Mississippi has gone from the gulf to the east coast and now has changed direction from that Marcellus down back to the gulf. So we've seen a dramatic change in the gas portfolio and gas pipeline system over this past decade.

8 All right. I think the gas utilities fared 9 very well during this polar vortex. As far as I could 10 tell, all the gas utilities were able to keep service 11 for the majority of their customers, no big material 12 interruption because of the weather event, and hopefully 13 prices were mitigated in part by the long standing policy at the Commission. There's 20 CSR 4240-4.018 and 14 15 this is a volatility mitigation. This helped us 16 understand and get support with participating in storage 17 to moderate prices, hedging, different supply contracts 18 and this make up probably really mitigated what could 19 have been a really extreme event into the billions of 20 dollars if gas utilities in Missouri didn't have these 21 sources and support from the Commission. So appreciate 22 this long standing practice because it really saved 23 Missourians significant money what could have been. Besides price mitigation, another practice 24

25

TIGER COURT REPORTING, LLC WWW.TIGERCR.COM 573.999.2662

that gas utilities do in the state of Missouri is file

AO-2021-0264, Vol. I

resource plans with the Missouri Public Service 1 2 Commission, and this shows, lays out our peak day design based on whatever cold weather determinant we determined 3 over the past 60, 80, 20, 30 years. 4 It shows our firm 5 capacity from storage, how we're going to supply our 6 customers during these very cold temperatures. So that 7 practice, that communication with technical staff, that 8 also helps secure reliable gas to Missourians. 9 I've got a breakdown here to kind of highlight some of this price mitigation. You know, nearly 60 to 10 11 70 percent of our portfolio is based on first of the 12 month prices. So those prices are set. They're not 13 volatile like that gas graph that climbed and went 14 substantially high. It also has storage in there that 15 has a set price based on the price of gas we injected 16 during the summertime, sometimes referred to as a weighted average cost of gas, WACOG. And then we also 17 18 have hedges on top of some of those purchases that 19 furthers mitigate price. 20 Now, we plan for normal. We know sometimes it

can be hot, sometimes it can be cold. So there's always a certain portfolio mix that's going to be at the daily market. That's the prudent thing to do. And so we're always going to float a little bit with the daily market. 20 to 27 percent of that floated with the daily

1 market. That's really when we get into price impacts, 2 that's that piece that was the most impactful when we're 3 seeing 200, 300, \$600 price of gas.

One thing I did want to point out on that 4 slide -- sorry. I'm making it difficult for the 5 6 navigator. We've got end users on here about 10 percent 7 of our portfolio. When we say "end users," our larger 8 industrial commercial customers, they could go out and 9 work with a marketer and have the marketer supply them qas. This is also a provision for the schools in the 10 11 state.

12 And since the marketers and their agreement 13 and their tariff provisions allow them to go out into the market and get their own molecules of natural gas, 14 15 we don't plan for that in our peak day resources. We 16 expect that gas to be brought in for those customers 17 based on their arrangements and agreements. So when we're talking peak day plan, firm customers, regulated 18 19 customers, we carve them out of our peak day planning.

20 MR. APLINGTON: I'll go ahead and jump in. 21 One of the questions that the Commission asked was along 22 the lines of marketers and OFO penalties. The question 23 really is about Operational Flow Orders. And as Scott 24 just mentioned, we don't plan to source or bring in gas 25 to our gate for those end user transportation customers.

1	We rely on the gas that their marketers arrange to bring
2	us on their behalf. That's about 10 or 11 percent of
3	our total peak day needs. Much like the interstate
4	pipelines had done, they saw it, as we did, the forecast
5	for the polar vortex and the forecast for gas supplies
6	to become sort of critically short. So on February 12,
7	we issued an operational flow order to make sure that
8	all marketers were aware that they needed to be bringing
9	in gas daily to balance their end users' use to maintain
10	the reliability of the entire system to make sure that
11	we have enough gas to serve everybody. So that
12	operational flow order was in place from February 12 to
13	February 18 on the west side of the state. We did not
14	need to have any kind of Operational Flow Order on the
15	east side of the state given the supply that we had
16	there.

17 On the west side of the state, we did have 18 these six or so days of OFO situation and, you know, 19 when those marketers, some of them, and I should say we 20 have probably 12 to 15 marketers serving customers end 21 users behind our city gate. Many of them performed very well and were able to bring the gas that their customers 22 23 were using on a daily basis and help support our system. 24 We did have some marketers that were not able to bring 25 in enough gas for what their end user customers were

In that situation, we have to go out to the 1 burning. 2 market and some of these very high index price days and purchase Calor gas to make sure that there's enough gas 3 4 coming into our system to serve our firm customers as 5 well as marketer end user customers. So we were forced 6 to do that for some marketers that did not deliver gas. 7 There was a day when a large marketer delivered no gas 8 at all to our gate that required us to make pretty 9 substantial cover arrangements there. All in all, we have about \$195 million of OFO 10 11 penalty. But if you look at the tariff for any gas that 12 we have to cover the marketers failed to deliver to our gate, our tariffs contain a calculation of what those 13 14 marketers will owe us for essentially cover damages. 15 And that is the index price for the day times the MMBTU 16 amount that they were short for the day times 2.5. So 17 the 2.5 is the penalty amount. When you do those calculations for the handful of marketers that did not 18 19 fully perform, that's where we come up with the \$195 20 million.

That number is very important, because all of those cover type of damages and penalties that we're able to collect from marketers will flow right back into our PGA as an offset to what our firm utility customers will need to pay for gas. So we're very eager to

collect these penalties from marketers. One, to help 1 2 offset what our firm utility customers will need to pay. 3 It's also a very important provision to have a penalty 4 to encourage marketers to bring gas to our gates sufficient to cover their customers' needs on the 5 6 coldest days to maintain the integrity of the entire 7 So we were able to do that in this case, and so system. 8 the only sort of outstanding issue with respect to OFOs 9 is the penalties owed.

10 MR. WEITZEL: Thanks, Matt. And one thing I 11 wanted to point out on here is I see extreme hardships 12 on customers, and we're not trying to provide any 13 extreme hardships on our customers. The marketers 14 didn't perform, not our customers. So we want to be 15 clear with that that these fees are going to the 16 marketers because of the nonperformance and not our 17 customers.

18 Our customers have a contract with these 19 marketers, and we don't know exactly how these contracts 20 are set up, but they probably have some sort of firm 21 provision in there and they were not getting firm 22 service and we had to step in and provide that and it's 23 not just so much commercial industrial customer school 24 didn't have the supply. It was we were worried about 25 our system pressure, our system operation and in keeping

our system running. Again, that carve out we saw about
 percent of our supply. So if we started losing some
 of that supply, it puts our whole system at risk.

Go to the next slide. All right. We did 4 5 issue a period of curtailment. However, we did not have 6 to curtail any customers. There was a line on Southern 7 Star from Joplin to Springfield that was having some 8 real pressure problems. To be honest, we were a little 9 Spent hours in the evenings, folks in their nervous. trucks at all hours of the day and morning out in the 10 11 field, you know, making sure our system was well 12 maintained and, you know, we had people that actually 13 curtailed substantially and helped out the total system.

14 The Ford plant in Kansas City I think nearly 15 idled for a week or two. They were really thinking about the community and the system. So we appreciate 16 17 that. And I know the Missouri School Board Association who oversees hundreds of schools did what they can to 18 19 reduce load. So there was some really good actors out 20 there thinking about the community and the system and 21 keeping everyone on with reducing their load.

22 So luckily we didn't have to curtail anyone, 23 and we really appreciate the individuals and the 24 businesses and associations that stepped up and tried to 25 do what they do to conserve during these critical times.

So we did have a lot of communication and outreach 1 2 during this curtailment, during this period of very cold weather high prices on conservation and on curtailment. 3 So we had some news releases. We reached out to local 4 media in some of these markets that could have been 5 impacted by the curtailment, and our senior leadership 6 7 and president had interviews trying to get the word out 8 on conservation.

9 Here is just an example of some emails that were sent out to our end users that we're talking about 10 11 curtailment. Let me go to the next one. Yeah, and then 12 there were email blasts, texts, automated calls. For our transportation customers, curtailment notifications, 13 14 notifications about conservation and then also some 15 education to our customers that, you know, because of 16 this cold their usage will be higher so their bills will 17 be higher but not their rate.

And that's one thing that we could all land on is that any rate increase on the gas cost for Spire won't likely happen until the October, November time frame when we file our PGA or purchased gas adjustment. We were active with the social media as well.

I think it's a little too early right now for us to know if we're going to get billed penalties from gas pipelines. We haven't received all the invoices

yet, but, you know, we were an active responsible 1 2 shipper on these pipelines. Our gas supply folks were in constant communication with those pipelines and 3 trying, of course, to make sure that our supply needs 4 5 were met but to make sure that the system as a whole we 6 could do what we can to keep the system viable so there 7 wouldn't be issues because what happens upstream could 8 impact us and our group was in constant communication 9 and following our firm contracts. 10 We'll touch on some regulatory approaches. So slides -- a couple slides down we'll talk about 11

potential price impacts for our customer. There's going to be increased prices. We saw those 200, 300, \$600 prices. We'll lay out some items we think that we can work with Staff and our intervenors and the Commission on because prices are going up and we think there's ways that we can mitigate that.

18 One item that already there is our filing 19 adjustment factor. So this kind of allows the utility 20 to make an adjustment to the PGA plus or minus 5 cents. 21 And it's treated like every other mechanism or tool in 22 the mechanism and how things are accounted for. We felt 23 that if we extended that to a credit for the next three 24 years that that will allow us to reduce the PGA and 25 flatten it over three years so all in one year there's

> TIGER COURT REPORTING, LLC WWW.TIGERCR.COM 573.999.2662

not this price impact or rate shock to our customers.
So we think a small adjustment to the filing adjustment
factor could levelize those prices and that impact over
three years but still let everything flow through how
the PGA and the ACA calculation is made up currently.
So we think this is one option that we could have
further conversations with our regulators on.

8 Another is a waiver. So Spire was in this exact same situation a couple years with one of our rate 9 10 class customers where they had a cap for years and then 11 all of a sudden it went from 5 cents to 26 cents and we 12 didn't want there to be rate shock for that customer. So we filed a waiver to cap that at 10 cents instead of 13 14 the 26 cents that the accounting showed that we should 15 recover from them. And this was all completed and approved and agreed to in less than a week. So there's 16 17 that approach as well.

18 All right. What are some price impacts that 19 we're forecasting. I think it's very important for 20 everyone on this call and people listening in or 21 evaluating this is there's still a lot of moving parts. 22 So we're putting out some potential increases, but again 23 our filing is likely not going to happen until October. 24 We don't know where natural gases prices are going to land come October. We don't know how much recovery 25

we're going to get over this period of time that is part of that PGA calculation. So just really wanted to put some caution out there that these are forecasts, these are estimates but they can move just because we can't see in the future.

6 To show how much these price spikes impacted 7 what we spent in a year. On the west side of the state 8 we spent more in February than we did the whole year of 9 2020. So again substantial dollar amounts were being 10 spent in just a week's time. This was a little -- This 11 was less on the east side of the state. Aqain, we got a 12 little more supply diversity there now with access to new supply basins that mitigated that increase. 13

For the east side of the state, that PGA component is going to increase 12 cents and hopefully we can work together and spread that out over three years and that would just be a 4 cent increase. Total bill impacts of our customer could be 10 to 15 percent. Spread out again would be a 4 percent increase.

Again, because of the Southern Star price index, the west of the state was unfortunately hit a lot harder with price impacts. That PGA increase could be around 18 cents or 6 cents over the next three years. Total bill impact will be 15 to 25 percent. Hopefully with the spread out over three years that will just be a 1

7 percent increase. 2 One item on there is I know AAOs have been floated around and talked about. Our kind of thought on 3 that is there's currently a mechanism that in the PGA 4 5 and ACA that recovers gas costs, that recovers 6 over/under collected, and you know, we think that's the 7 best path of landing within those current tariffs, those 8 current calculations to come to a solution on how to 9 minimize any impacts for our customers. 10 Next slide, please. Thank you. All right. 11 Lessons learned. You know, these events are nice when 12 they happen every three to six years so people still remember them. It wasn't a 20-year ago thing. So we're 13 14 going to continue to evaluate and look at our supply and 15 pipeline diversity on the west side of the state. Our 16 team continually runs models, looks at pressures, looks at our distribution system, looks at rates on interstate 17 18 pipelines, and I think this what happened on the west 19 side of the state reinforces our need to be laser 20 focused on any opportunities or options to help out that side of the state. 21

22 We've talked about one of the reasons we are 23 here is because of the wells freezing in. So we need to 24 get smarter about our suppliers and producers, see if they have weatherization options and have those 25

conversations in the industry about weatherizing
 production wells.

3 Speaking of production wells, other solutions 4 that we could look at are ownership or joint ventures in 5 owning wells. So when producers own a well, it's tied 6 to the price to produce and not the market price. So 7 when you see 2, 3, \$600, that price to produce is going 8 to land much lower in the zero to \$5 range. So should 9 we explore that and look at that.

I did want to let the Commission know that we have filed a complaint with a market reporting agency Platts runs the indices. That's where all these daily prices are reported on and most contracts are settled on. And we felt one point on Southern Star was illiquid and priced too high and so we are active in that in the interest of our customers to prevent those price spikes.

17 It will also be active on the FERC front to see if any dockets show up on price signals or 18 19 transparency issues. One item that I talked about that 20 I think why all gas utilities landed in a good spot was 21 our reliability and resource plan that we filed with the 22 Commission looking at our peak day. One thing that we 23 can look at is adding some sections in that to look at 24 five years, ten years, twenty years, talk about more 25 strategic long-term look on how to enhance our

distribution system, how to enhance upstream pipeline
 and talk about some of these items of pipeline
 diversity, ownership and production well to put that out
 there for discussion with our regulators.

5 One item and one takeaway for sure is that we need to look at our tariffs on the end user 6 7 transportation and third-party marketers. You know, we 8 do have concerns there when it's the coldest days and 9 gas is not getting supplied to our system. It's a concern for our customers. It's a concern for our 10 11 operations. So we might look at application process 12 posting principal guarantees or letter of credits or asking for them to show proof that they can serve 13 14 customers behind our city gate with firm transportation 15 or firm rights and so we don't get in this mess again.

16 So the good news is, and it was a lot of hard 17 work and a lot of time spent by many departments at 18 Spire, is that we were able to keep the gas flowing to 19 help out our neighbors. When I say "neighbors," 20 neighboring states, neighboring pipelines, and so we're glad we performed well. We could always improve our 21 22 process. We're looking at that right now. The good 23 news is we weathered it. It's unfortunate that we had 24 these price spikes. We look forward to working with the Commission Staff and other parties on how to mitigate 25

Г

1	any impacts to our customers. I didn't know if any
2	other closing thoughts from our Spire personnel.
3	MR. APLINGTON: I don't think so, Scott. I
4	think that's right. We're very proud of the performance
5	and really appreciate the Commission opening this docket
6	to look at some options for how we can help mitigate any
7	kind of price impact for customers.
8	JUDGE PRIDGIN: All right. Very good. Thank
9	you. Let me see if we have any bench questions.
10	Mr. Chairman?
11	CHAIRMAN SILVEY: Thank you, Judge. I do.
12	Thank you, Scott, for the presentation and I know that
13	you all, all the utilities were given some written
14	questions in advance to go over. So I won't go over
15	those to compare against your presentation just now. I
16	do have some questions about your presentation.
17	You mentioned back several slides, early in
18	the presentation, that you thought that this was a five
19	to seven-year type of event. I just wanted to get some
20	clarification on that because the RTOs in the electric
21	sector seem to be treating this as a generational if not
22	longer type of event. Is that truly what you meant or
23	did you just mean that there is an event but not
24	necessarily to this magnitude every five to seven years?
25	MR. WEITZEL: Thank you, Chairman, for

TIGER COURT REPORTING, LLC WWW.TIGERCR.COM 573.999.2662

questioning my weather forecasting five to seven years 1 2 in the future. What I meant by that was that, you know, 3 just in the past ten years we've seen two polar vortexes that have impacted production, that have impacted prices 4 5 substantially. So that's what I was referring to. We saw an event in 2014. We saw this event in 2021. 6 So 7 that's where I do caution and maybe there is a 8 difference between the electrics and gas is that we 9 shouldn't -- as a gas industry we shouldn't be selling 10 this as a once in a lifetime event. We've seen this 11 happen twice now in the past seven years, and we just 12 need to be prepared for this going forward. That's when I said five to seven, it was time that two polar 13 14 vortexes together.

15 CHAIRMAN SILVEY: Okay. I appreciate that 16 perspective. Can whoever is controlling the slides go 17 back to slide 14, please? There you go. All right. 18 Question about this slide. The daily call purchases, 19 what is the discrepancy between east and west on peak 20 day there of 6 percent? Why is west higher on the daily 21 call purchases?

22 MR. WEITZEL: I'll let my gas supply group 23 jump in here and give some guidance. Chairman, it could 24 have been because we were having to go out there and buy 25 substantial amounts of gas for those end users that were supposed to be supplied by the marketers, but I don't
 know if that's true or not. I'll let my gas supply
 group make a comment on that.

MR. GODAT: Yes, Scott, I'm sure that's what the difference is. As Scott had mentioned, one of our peak suppliers didn't bring in any supply for the end users on those days. So we were having to go out and replace those volumes. Typically our first of the month supply and hedges and storage we try to line up those pretty consistent between the two utility companies.

11 CHAIRMAN SILVEY: How many of the marketers 12 weren't compliant and failed to deliver?

13 MR. APLINGTON: I believe altogether it was14 six or seven.

15 CHAIRMAN SILVEY: You guys mentioned that 16 there were some penalties that you're going to be 17 assessing on those. Is there any concern about their 18 ability to pay those penalties?

MR. APLINGTON: We don't have concerns about the credit worthiness of the two primary penalty payors at least at this point in time. They're both fairly robust entities and they account for the vast majority of the 190 million or so that I mentioned earlier. There are some smaller marketers that owe much smaller amounts, 5, 7, \$8 million. We do have some credit

concerns. But for the most part at this point we don't. 1 2 CHAIRMAN SILVEY: Okay. And then what is the 3 time frame for payment on those typically? MR. APLINGTON: Well, we've already sent 4 5 demand letters and we've actually entered into some 6 litigation with the three principal marketers that owe 7 penalties, but we're going to have to see how those 8 legal proceedings plan out. 9 CHAIRMAN SILVEY: Then kind of as a more 10 general question, when did you guys really notice that 11 there was going to be this blast, this arctic blast 12 versus when did you realize there were going to be 13 complications associated with it? 14 MR. WEITZEL: George, you might also want to 15 I know, Chairman, that our gas supply group comment. 16 was weeks and days before this weather hit was making 17 moves to shore up supply and start those conversations 18 with pipelines in anticipation of this type of an event, 19 but exact days or weeks I don't have. George or Justin? 20 CHAIRMAN SILVEY: I was just going to say if 21 you don't have them right now, we can get them before 22 the report is due. That's fine. I'm not trying to 23 sandbag you with questions on data points. Okay. So 24 then this is my last question then. You mentioned that you had filed a complaint at the end of your 25

presentation. Where is that complaint filed and is 1 2 there a docket number? What exactly is that situation? MR. APLINGTON: So we filed two complaints 3 with S&P Global Platts. That's the organization that 4 5 publishes Platts Gap Daily that sets the index prices at 6 various points from pipelines. So they have it's an 7 internal complaint process where we submitted complaints 8 to them for days that we thought that their price index 9 should have been (muffled audio) altogether. They have 10 worked with those complaints. We've discussed them with 11 them. So far we have not gotten (muffled audio) in 12 terms of (muffled audio) market prices but there are additional steps we can take with their complaint 13 process and we intend to do so. 14 15 CHAIRMAN SILVEY: Okay. Thank you very much. Again, thank you for the presentation. Thank you, 16 17 Judge. 18 JUDGE PRIDGIN: Thank you. To make sure I 19 don't overlook anyone, I'll do a roll call to see if we 20 have any other bench questions. Commissioner Kenney, any questions? Hearing nothing. Commissioner Rupp, any 21 22 questions? 23 COMMISSIONER RUPP: No questions, but I do 24 appreciate the presentation and I appreciate Spire's 25 standpoint that this is not a once in a lifetime event;

> TIGER COURT REPORTING, LLC WWW.TIGERCR.COM 573.999.2662

1	that the acknowledgment that we've had two in the last
2	seven years and you guys are looking at it from that
3	vantage point speaks volumes about where your guys' head
4	is and I applaud that. So I appreciate it.
5	JUDGE PRIDGIN: Commissioner Rupp, thank you.
6	Commissioner Coleman, any questions? Commissioner
7	Holsman, any questions?
8	COMMISSIONER HOLSMAN: No questions, Judge. I
9	would just echo the Chairman and Commissioner Rupp. As
10	someone who is interested in disaster preparation, these
11	are very important conversations. Thank you.
12	JUDGE PRIDGIN: Commissioner, thank you. Any
13	Staff questions before we move to Ameren Missouri?
14	MS. DIETRICH: Judge, this is Natelle
15	Dietrich. I have a question in chat when you're ready.
16	JUDGE PRIDGIN: Whenever you're ready.
17	MS. DIETRICH: Does Spire have a sense of what
18	the bill impacts would be on a one-year and three-year
19	basis if the OFO penalties are waived by Southern Star?
20	MR. WEITZEL: Hi, Natelle. It's Scott. We
21	don't have that calculation right now. It's something
22	we can probably follow up, compute and follow up with
23	you or Staff.
24	MS. NIETRICH: Thank you.
25	JUDGE PRIDGIN: Thank you. Spire, thank you

AO-2021-0264, Vol. I

very much for your presentation. We will move to Ameren 1 2 Missouri and I've got the -- I think Mr. Meyer or Mr. Eggers, did you plan to present for Ameren Missouri? 3 MR. EGGERS: Hi. This is Tim Eggers. I'll be 4 5 presenting. 6 JUDGE PRIDGIN: Whenever you're ready, sir. 7 MR. EGGERS: Okay. First slide, please. 8 JUDGE PRIDGIN: If I could remind everyone 9 please be sure you are muted unless you intend to speak. It's interfering with the court reporter and I'm hearing 10 11 a little background noise myself. Madam Court Reporter, 12 I'm sorry. Ameren Missouri, is it thank you. 13 Mr. Eqgers? MR. EGGERS: Yes, sir. 14 15 JUDGE PRIDGIN: Whenever you're ready, sir. 16 MR. EGGERS: Thank you. Hey, we appreciate 17 the opportunity to present and participate in the 18 workshop as well. I want to thank Spire for doing a lot 19 of the heavy lifting and presenting some of the 20 background information so that that would be similar for 21 Ameren Missouri and probably the other utilities as 22 well. Appearing for Ameren Missouri we have Andrew 23 Meyer, Senior Director of EM&T, myself, I'm a Manager of 24 Gas Supply, many of you know Tom Byrne, Senior Director, Regulatory Affairs, Jermaine Grubbs, Corporate Counsel, 25

and we have other team members that can assist me in 1 2 answering questions after the presentation. So we'll cover general background of our 3 operations and we'll respond to each question identified 4 5 by the Commission to be addressed. Next slide, please. 6 My system is slow to update. You'll have to 7 -- I apologize for that. Ameren powers the quality of 8 life for over 130,000 natural gas customers in Missouri 9 primarily focused in mid Missouri, Columbia, Jefferson 10 City, south to Rolla, east to Wentzville, with the 11 service territory also down in Cape Girardeau and 12 Dexter. We transport on -- primarily on Panhandle 13 14 Eastern Pipeline taking service from both the 15 Midcontinent and from points east of Missouri. We have 16 access through Rockies Express Pipeline, through 17 Missouri Gas Pipeline, and ship on Texas Eastern 18 Transmission, Natural Gas Pipeline of America for our southeast regions. We also have small contracts on 19 20 Southern Star and Trunkline Gas Company. 21 We also have a Rider A purchased gas 22 adjustment clause. With the filing adjustment factor 23 and the annual cost adjustment, that's limited to a 24 one-year recovery. So like Spire, we certainly wish to 25 mitigate the rate impact on our customers as well and

will provide some calculations and some similar 1 2 suggestions to Spire. Ameren Missouri does have a 3 robust planning process. We meet twice a year with 4 Staff and OPC. We procure our gas and transportation capacity over a six-year cycle and layering in physical 5 6 gas purchases and natural gas hedges over that time 7 which was certainly beneficial to mitigating the impact 8 of the price blowout.

9 Next slide, please. So the order directing 10 responses has nine questions. And the ODA identified 11 three areas. As we answer these, they overlap a little 12 bit. You'll see an asterisk. I think it flows pretty 13 well.

14 Next slide, please. So the big question gas 15 So for February 2021, we spent approximately costs. 16 \$60.6 million in purchased gas costs and storage 17 deliveries. That total for the whole calendar 2020 was 18 31 million. So if you look at the budget for Ameren 19 Missouri, not presented were right around 50 to \$52 20 million with current gas prices. And their current 21 under recovery based upon the February activity is right 22 around \$50 million.

Next slide, please. We did quite well
operationally. Our firm transportation was adequate to
meet the supply needs. We did not see a lot of

Г

1	penalties. We had an hourly violation on Natural Gas
2	Pipeline for a little over 1,100. We have a \$50,000
3	penalty from Southern Star that's subject to potential
4	waiver under a current FERC docket. And we've filed
5	comments in that docket in support of the waiver, and we
6	were fortunate enough to avoid penalties on all the
7	other pipelines that we ship on. So we're very
8	successful in mitigating the operational risk, the
9	prices. They obviously blowed out and will have a
10	tremendous impact on our customers. But operationally
11	from a gas supply standpoint we fared very well.
12	Next slide, please. Another question is the
13	estimated impact. Here's where it gets very significant
14	for my customers. Our current regular PGA is 44.86.
15	We're in a period of over recovery. So we're flowing
16	back 7.23 cents for a total PGA on the residential side
17	of 37.63 cents per hundred cubic feet. As we look at
18	what this event did to us, the RPGA is expected to float
19	up to about 50.58 cents with the normal sources of
20	increases there, but our actual cost recovery putting
21	that \$50 million into one year will result in a 45.86
22	cent increase for a total PGA rate of 96.44. That would
23	be our residential rate. Our general service PGA is the
24	same rate. Our interruptible rate, which is a really
25	small subset of customers, it's smaller but the ACA is
still a severe impact on those customers as well. We haven't seen a PGA like that since 2009. Our highest PGA ever was 110 cents back in 2008. Our three-year average is about 44 cents all in. So we're certainly very, very much in favor of mitigating this through some of the avenues that Mr. Weitzel covered.

Next slide, please. Certainly recovery of more than one year will benefit. We have filed for PGA to be effective April 1 in recognition of the fact that we are no longer in an over recovery situation and our ACA being -7 cents is just pushing us in the wrong direction and we need to get this moving in the right direction.

Ameren Missouri certainly prefers PGA options. 14 15 PGA is the mechanism that's explicitly designed for gas 16 supply costs and recoveries. So we would prefer to keep 17 it there and manage it there. And since our price 18 impact seems to be a little higher than Spire's, before 19 November 1 we would like to see a couple of options 20 looked at. One we see is pretty reasonable is to take 21 that filing adjustment factor and remove the plus or 22 minus 5 cent cap and Ameren Missouri is looking to need 23 up to a plus or minus 35 to effectuate a mitigation 24 strategy in that first year.

25

Also, we could extend the ACA recovery period

TIGER COURT REPORTING, LLC WWW.TIGERCR.COM 573.999.2662

1 up to 36 months and the math is largely the same. I 2 think we prefer that FAF adjustment so that we don't 3 have basically redundant ACA or pancaked ACA accounts. 4 And we could get there through a permanent tariff change 5 or a variance request.

Next slide, please. This slide kind of gives you a look at how the recovery mechanism using an expanded FAF would work. If we look at the year 1, those are the numbers that we presented two slides ago with a total PGA of 96.44. If we were allowed to use a credit or a negative adjustment of 32 cents, we would end up with a rate for year 1 of 64.44 cents.

13 As we would go to year 2, we would have some 14 of that recovery done. I'm assuming the RPGA stays 15 relatively flat and with market prices we would at least 16 expect that in the interim. The ACA factor would come down to 29.5 cents for a total PGA of 79.5 and then that 17 18 FAF could be updated to a -16 cents keeping a rate 19 consistent with year 1 and a similar occurrence for year 20 3 keeping the RPGA consistent. The ACA has now fallen 21 further to a 14 cent adder for a total 64 cent rate. And we would not need a FAF adjustment at that time 22 23 because that would be consistent.

24 If we did a three-year recovery and had the 25 ACA divided out over three years, possibly something

1	like 16 or 17 cents, it would basically accomplish the
2	same thing but from an accounting standpoint we think a
3	FAF adjustment is just a little easier to administer.
4	This does the goal. It gets a consistent stable, you
5	know, albeit with significant increase but we think it's
6	the best way to pass along these costs to the customers.
7	Next slide, please. Communications with the
8	customers. Yeah, we certainly did. We issued three
9	press releases focusing on energy conservation and
10	offering safety tips. We also had a news conference, a
11	lot of media interviews and communicated safety and
12	energy conservation through social media. We do not
13	know the exact numbers of customers we reached. That
14	data just simply isn't available to us. Certainly we
15	were gratified to see widespread media coverage in our
16	service territories. In mid Missouri, southeast
17	Missouri and certainly St. Louis and Kansas City,
18	although not our gas service territory, the news media
19	did a good job of telling the story that benefited the
20	utilities and ultimately benefited customers.
21	Next slide, please. Sorry for the delay. It
22	takes awhile for my computer to update the screen.
23	Questions 6, 7 and 8 from the responses, the requests,
24	tell a great story for Ameren Missouri. We were able to
25	provide gas service to all our customers throughout the

event. We did not have any customer outages beyond
 maybe a single service regulator having a problem.
 That's just kind of normal operation. So no multi
 customer or no widespread outages.

We did not call a curtailment event and did 5 6 not curtail any customers during the event. Our 7 strategy for having firm supplies purchased on firm 8 pipeline capacity and supported by storage performed 9 extremely well. We were in communication with our 10 pipelines throughout the event, and as long as they were 11 expecting to deliver we really didn't have any delivery 12 risk to the customers. We were well situated in that the storage we owned and delivered and our hedge 13 baseloads were very valuable price mitigation tools and 14 15 operational mitigation tools as well.

16 Next slide. Obviously because we -- We 17 reviewed the supplies that our transport customers were 18 bringing in and their suppliers after every nomination 19 cycle and we were fortunate to receive enough supply 20 from our transporters that there was never really a risk 21 of under delivery. So we did not need to even put an 22 Operational Flow Order out to our customers. We did 23 some weather advisories in February 10 and 12, but there 24 was really no reason for us. We were seeing an adequate 25 supply much unlike the situation Spire West did. We

were very fortunate that our suppliers delivered on 1 2 behalf of the transport customer groups, the schools. So worked out pretty well for Ameren Missouri. 3 We are reviewing our OFO tariff language 4 5 because from what we've seen across the country some of 6 these charges are really unrealistic to deliver the kind 7 of result we want. So we'll be taking a look at our 8 tariffs as well and trying to get the language that's motivational to get the gas in that the system needs 9 10 without risking major expenses to PGA customers. 11 Ameren Missouri actually has a concern of over 12 delivery rather than under delivery which was a good problem to have. But when you're talking about gas 13 14 prices in the triple digits with multipliers for 15 penalties, the dollar shifts can be huge. 16 In summary, Ameren Missouri did have an 17 extreme price impact and that's obviously something that 18 we want to work with the Commission and our utility 19 partners in the state to mitigate the best we can. Ι think our best case is about a 16 cent increase over the 20 21 three years. And that's unfortunate but I think that's 22 where the numbers with the good regulatory outcome will 23 land for us. 24 For my Missouri partners out there, any additional comments? Hearing none, I'll open it for 25

Jackie. 1 questions. 2 JUDGE PRIDGIN: Very good. Thank you. Any bench questions? Mr. Chairman? 3 4 CHAIRMAN SILVEY: Yeah, thank you. Just one. And I do appreciate your participation as well. 5 Thank 6 you for the information. I was just wondering could you 7 describe maybe a little bit more what types of changes 8 to the OFO tariff language that you might be thinking of 9 and if you're not prepared for that, is that something 10 that you could provide us before the report deadline? 11 MR. EGGERS: Yeah, I can touch on it a little 12 bit. If a supplier over delivers, like I said, it was a 13 nice problem to have but our tariff allows that supplier 14 to be paid at the market price and we had enough gas on 15 the system that I didn't want to buy any more extremely expensive gas for my PGA customers. We didn't see it 16 17 during this event. There's always the opportunity for 18 somebody to intentionally over or under deliver, and I 19 want to make sure our tariff is fair to both the 20 transporters and their suppliers and our customers. Ι 21 certainly don't have language, but we can give you a 22 feel for that in a little more detail than I've shared 23 here by the end of the docket. 24 CHAIRMAN SILVEY: Okay. We appreciate that.

> TIGER COURT REPORTING, LLC WWW.TIGERCR.COM 573.999.2662

Thank you, sir. That's it for me, Judge. Thank you.

25

Г

1	JUDGE PRIDGIN: Mr. Chairman, thank you. Just
2	in case Commissioner Kenney joined, Commissioner Kenney,
3	any questions? Commissioner Rupp, any questions?
4	COMMISSIONER RUPP: No, no questions at this
5	time. Thanks for the presentation.
6	JUDGE PRIDGIN: Thank you. Commissioner
7	Coleman, any questions? I don't think she's here.
8	Commissioner Holsman, any questions?
9	COMMISSIONER HOLSMAN: No questions, Judge.
10	Thank you.
11	JUDGE PRIDGIN: Commissioner, thank you.
12	Anything from Staff?
13	MR. SOMMERER: Judge
14	JUDGE PRIDGIN: Yes.
15	MR. SOMMERER: this is Dave Sommerer with
16	Staff. I just had a follow up for Mr. Eggers. You
17	mentioned that there were no under deliveries from
18	marketing companies to end users. Could you elaborate
19	on that for the 10-day cold weather event that then were
20	both not under delivering or over delivering?
21	MR. EGGERS: I'm sorry. I didn't get that
22	very clearly. Can I hear that question again?
23	MR. SOMMERER: Basically I'm asking about the
24	performance of the natural gas marketers that serve the
25	end users or the transportation customers. Did you say

Г

1	they were not under delivering or over delivering?
2	MR. EGGERS: Yes, exactly. By and large they
3	slightly over delivered in a fairly comfortable manner.
4	We might have individual days or individual suppliers
5	that under delivered but not by a major percentage and
6	certainly not by a number that caused us any concern.
7	MR. SOMMERER: Thank you.
8	MR. PRIDGIN: Thank you. Is there anything
9	further from Staff? All right. Hearing nothing, we
10	will then move to Liberty Utilities and I believe Ms.
11	Carter and Mr. Beatty will be presenting; is that
12	correct?
13	MS. CARTER: Yes. Thanks, Judge. This is
14	Diana.
15	JUDGE PRIDGIN: Whenever you're ready.
16	MS. CARTER: Thank you. We do have there's
17	our presentation Mike Beatty, our VP of Operations
18	will be presenting the slides for the Empire District
19	Gas Company and Liberty Utilities (Midstates Natural
20	Gas) Corp. We also have available to answer questions
21	if necessary Dana Liner, one of our Rates and Regulatory
22	Affairs Managers, Tatiana Earhart, Gas Transportation
23	Supervisor, Bill Killeen, our Director of Energy
24	Procurement and Martin DeBruin, one of our Managers of
25	Gas Planning. Hopefully we have enough people on the

line to answer questions that may come during or after 1 2 the presentation. Mike, I will turn it over to you. MR. BEATTY: Thanks, Diana. Really appreciate 3 the opportunity to make this presentation. So if we can 4 5 go to the second slide. So our agenda we're just going to look at the event, supply costs, how the operations 6 7 were affected. We'll talk about the PGA and our 8 communications and then open it up to questions. 9 So the event. As Spire and Ameren have talked about, the cold weather event, our peak days were really 10 11 on the 14th and 15th. And as Spire and both Ameren had 12 talked about, you know, these cold weather events have 13 occurred in our recent past but it was the days, the number of days that this was going to impact us that 14 15 really grabbed our attention. 16 There are still some of us working that can 17 remember the Christmas of 1989 where we had multiple day 18 events and the impacts to the system there. It grabbed 19 our attention. We started working on this event on 20 February 5. As you can remember, the forecasts were 21 really earlier and this event kept sliding a few days 22 into the week and unfortunately happened over the 23 weekend. We had some peaks. We had some 77 heating 24 degree days on the 14th and 15th and that was against a 25 design day of 79 heating degree days. And we have 11

operating areas around Missouri. Five of those
 operating areas exceeded their record send out. They
 exceeded it from between 105 percent to 112 percent.

So the pricing that we saw obviously going 4 5 into the event was in the \$2 range, but we saw a maximum price of that 622. I think Spire noted that and that 6 7 was on Southern Star. So the February supply costs, you 8 know, normally we spend \$2.2 million in February on the 9 Midstates side of the house. We spent almost \$10 million, \$9.7 million. Annually our costs there are 10 11 \$21.8 million for the year on Midstates. That kind of 12 contrasts the \$10 million against that. And then on the Empire District side of the house, we saw \$35.5 million 13 14 versus a typical \$1.7 million for February and a typical 15 \$15.4 million for our annual costs.

You know, we followed our purchasing procedures, ensured our supply met demand on all the days during the cold snap. We will go over the OFOs on a later slide. Daily purchases were really necessary to supplement our base supply and maximize our storage withdrawal. Some areas also necessitated additional purchases due to the marketer shortfalls.

Liberty made additional purchases to reserve storage due to the stronger than anticipated storage withdrawals, you know, before and during the event.

Unfortunately we did have some marketers that did not perform. That number was three marketers, and mainly one marketer was the cause of most of this. You know, we talked about our daily gas prices were high resulting in extremely high costs for us across this event.

6 So a little bit about Liberty. We're served 7 by seven different transmission companies throughout 8 Missouri. We've got 11 operating areas. We serve 146 9 communities in 42 counties and you can see in the map 10 where we're located at in Missouri. You can see our 11 customer count there that's about 98,000 customers. We 12 didn't have any service issues. We were able to supply 13 throughout the event, and there were some impacts to a number of transport customers due to their supply. 14 15 No gas was delivered for a number of customers. The majority used our gas and a couple voluntarily curtailed 16 once contacted by our company. We'll talk about the 17 18 communications in a little bit.

Next slide. Our purchased gas adjustment.
You know, on the Midstates side of the house we're
looking at about 7 cents per CCF but on the EDG side
it's about 90 cents. We're looking to recover those
over multiple years. I'm not sure that we have the same
mechanisms in our PGA as Spire and Ameren. So an AAO is
not out of the question for us. We haven't made those

determinations because these numbers are preliminary on
 our side of the house.

A little bit about communications, you know. 3 As I said, we had started planning this on February 5 4 5 going into this event. We've got a business and 6 community development team that reached out to our 7 industrial customers, to our transportation customers, 8 let them know this event was coming. Again, we did not 9 have to curtail anyone in our system. Operationally we 10 didn't have any issues. We had some minor odorization 11 issues where the odorizers were freezing up, but 12 fortunately the system held up on the operations side very well. So it was really down to the communications 13 14 with these large customers.

And as I said before, some of the large customers while we did not curtail them, they self curtailed during the event which obviously helped us through that. We made multiple contacts with those customers and kept that line of communication open.

So our OFOs across these seven different transmission lines. As you can see there, if an OFO was issued on the transmission side, we really issued that on the Liberty side just to help the marketers stay in balance or tried to get them to stay in balance. And to a large degree that worked. As I said, we had a few

> TIGER COURT REPORTING, LLC WWW.TIGERCR.COM 573.999.2662

AO-2021-0264, Vol. I

marketers that just didn't -- just wasn't responsible. 1 2 We didn't have any OFO penalties or we don't expect any 3 material OFO penalties throughout this process. And I 4 would open it up to questions. JUDGE PRIDGIN: All right. Thank you. 5 Mr. Chairman, any questions? 6 7 CHAIRMAN SILVEY: Thank you, Judge. Yeah, 8 just a couple questions. 9 Could you go back just for clarification to 10 your February supply slide. 11 MR. BEATTY: Slide 4? 12 CHAIRMAN SILVEY: Yeah, thank you. So were 13 these costs for the entire month of February or just for 14 the week of the cold weather event? 15 MR. BEATTY: Just for the week of the cold 16 weather event. 17 CHAIRMAN SILVEY: Okay. Thank you. And then 18 how much did you have to buy on the spot market because 19 marketers didn't show up this February versus last 20 February? MR. BEATTY: Bill, I'll probably open it up to 21 22 your team to address that. 23 MR. KILLEEN: I'm sorry. There was a little 24 bit of background conversation going on. So I didn't 25 catch the entire question.

1 CHAIRMAN SILVEY: I'm sorry. I'll repeat 2 that. Sure, no problem. So how much did you have to buy on the spot 3 market because marketers didn't show up this February 4 5 versus last February? 6 MR. KILLEEN: I apologize. I can't give you 7 an exact number. I know we're still doing a lot of 8 investigating as to the exact situation of the marketers 9 through the cold snap. So I can't give you a specific 10 quantity or cost impact at this time. 11 CHAIRMAN SILVEY: Okay. That's fine. If 12 that's something that we could try to get before the dockets close, that would be helpful. 13 14 MR. KILLEEN: We're absolutely trying to 15 attempt to get you all the information that was 16 requested in the various data requests by the timeline. 17 CHAIRMAN SILVEY: Sure, no problem. And then 18 you also mentioned that Liberty doesn't have the options 19 that Spire and Ameren have for multi year recovery. So 20 aside from an AAO, would it be possible to request any waivers of Commission rules or tariff changes to mimic 21 22 those options that the other utilities have? 23 MR. BEATTY: Commissioner Silvey, those are 24 all things that we are considering and we may bring forward to you, yes, sir. 25

AO-2021-0264, Vol. I

CHAIRMAN SILVEY: Okay. Thank you. I 1 2 appreciate that. Thank you, Judge. No further 3 questions. Thank you again for the presentation. 4 JUDGE PRIDGIN: Thank you. Commissioner Rupp, 5 any questions? 6 COMMISSIONER RUPP: No questions at this time 7 but thank you for presentation. 8 JUDGE PRIDGIN: Thank you. Commissioner 9 Holsman? 10 COMMISSIONER HOLSMAN: No questions, Judge. 11 Thank you. 12 JUDGE PRIDGIN: Thank you, Commissioner. 13 Anything from Staff? 14 MR. SOMMERER: Judge, this is Dave Sommerer 15 aqain. 16 JUDGE PRIDGIN: Go ahead. 17 MR. SOMMERER: Question regarding the price 18 index. We've heard that Spire has some concerns about 19 the price index that was set. I don't recall which 20 pipeline but we did see some really high prices. Does 21 Liberty have any concern about the price indices that 22 were reported? 23 MR. BEATTY: Yes, sir, we are following the 24 FERC investigation while there has not been any request of the natural gas side and we are willing and ready to 25

AO-2021-0264, Vol. I

participate in that if so. 1 2 MR. SOMMERER: Thank you. 3 JUDGE PRIDGIN: All right. Thank you. We will then move to Summit. I believe Mr. Kaply or Mr. 4 5 Cooper are presenting? 6 MS. DIETRICH: Excuse me. Judge, I have a 7 question from Staff. 8 JUDGE PRIDGIN: I'm sorry, Natelle. Go ahead. 9 I'm sorry, Ms. Dietrich. Go ahead. 10 MS. DIETRICH: Is Empire or Liberty contesting 11 Southern Star's position to waive OFO penalties? 12 MS. CARTER: I'm not certain on which docket numbers are which. Empire Electric filed, I'm getting 13 14 our quotes, you can't see me, a protest regarding a 15 request for waiver of the penalties but not on the gas 16 side. 17 MS. DIETRICH: Thank you. JUDGE PRIDGIN: Ms. Dietrich, thank you. 18 19 Anything further from Staff? All right. Then we will 20 go on to Summit, and I believe Mr. Kaply and Mr. Cooper 21 will be presenting; is that correct? 22 That's correct, Your Honor. MR. COOPER: 23 JUDGE PRIDGIN: Whenever you're ready. MR. COOPER: Thank you. As you'll see, we do 24 25 not have a power point presentation this morning, but we

do have written responses to the questions that have
 been posed by the Commission that we'll file this week
 in the docket for the benefit of everyone.

Judge, as you mentioned, along with me today is Mr. Matt Kaply who is the Senior Director of Regulatory Affairs and Rates for Summit Utilities, which is the parent of Summit Natural Gas of Missouri, Inc. He will be available for discussion and questions as necessary as we go forward.

10 Summit certainly appreciates the opportunity 11 to participate in this proceeding and to provide 12 information to the Commission regarding the gas purchase impacts related to the extremely cold winter weather 13 this February and the extraordinary events in the gas 14 15 Summit's issues are very similar to those that market. 16 have been described by the other LDCs so far today. 17 However, because of its size, you may see at least if not greater individual customer impacts that will need 18 19 to be addressed in one way or another.

As you may recall, Summit is a gas only investor owned utility. It serves approximately 19,300 customers in five major areas in Missouri. Those are Gallatin or described as the Gallatin area, Warsaw, Lake of the Ozarks, Branson and Rogersville. For purposes of its PGA and ACA that's established by the Commission, Warsaw and Lake of the Ozarks are combined and then
 Rogersville and Branson areas are combined.

The Gallatin area is served from the ANR 3 4 Pipeline while the other two PGA, ACA areas are served 5 off of Southern Star. As you would probably guess, this 6 customer base consists primarily of residential and 7 small commercial customers in both rural areas and small 8 towns. Summit manages its natural gas supply through a 9 combination of hedges, fixed price contracts and then 10 gas purchased at index pricing. These procurement 11 practices are provided to the Staff on an annual basis, 12 and in the past in a wide range of weather and market 13 conditions Summit's procurement practices have helped keep its gas price fairly stable. 14

15 The historic spike in natural gas prices during the period of February 13 to 17 fell well outside 16 17 the typical range of forecastable market conditions and 18 market prices that the company had seen before. It's 19 been mentioned by others but for Summit as well it saw 20 market prices increase from approximately \$2.50 per 21 MMBTU to over \$620 per MMBTU by the end of that cold 22 weather event.

Now to give you an idea of the magnitude of those increases and their impact on the company as a whole, in the year 2020 for the entire year Summit's gas

costs were approximately 6.9 million. For just the
 month of February of 2021, those gas costs were close to
 or were a little over \$34.3 million. So significant
 numbers.

5 To keep its supply and service secure during 6 this extraordinary event and while trying to mitigate 7 the price impact on customers, Summit implemented additional measures such as reaching out through 8 9 multiple channels to encourage customers to conserve 10 energy, kept its communication lines with the Commission 11 Staff open during that period and made daily nomination 12 adjustments throughout what has been identified as a 13 long weekend between the Friday and the Monday holidays.

Now, Summit continues to assemble and assess its information from this period. However, what it knows today suggests very much that a process for recovery different than what's called for by its existing PGA, ACA tariff is going to be necessary to both provide for recovery and to recognize the impact to customers.

Summit believes that at a minimum extending the recovery period is going to be in the best interest of its customers and that achieving this result is likely to require again at a minimum tariff waivers and/or modifications to the PGA tariffs to make that

possible on a going forward basis. 1 2 At this point I'd like to turn it over or ask Mr. Kaply if he has anything he would like to add. 3 MR. KAPLY: Thank you very much for the 4 5 opportunity to address the Commission. 6 THE COURT REPORTER: I'm sorry? 7 JUDGE PRIDGIN: We're having a hard time 8 hearing you, Mr. Kaply. If you could really speak up. 9 You're pretty faint. 10 MR. KAPLY: I'm not generally inclined to yell 11 at the camera. Maybe put this headset on that will 12 work. Is that any better? JUDGE PRIDGIN: Yes, wonderful. 13 Thank you. 14 MR. KAPLY: My apologies. Thank you very much 15 for the opportunity to be here and to speak to you. Α 16 lot of what's significant for Summit you've already 17 heard from the other utilities, the swing of the prices 18 and the cold weather. I think from Summit's 19 perspective, as we've sort of looked back at what 20 occurred, we were checking sort of heating degree day arcs that were similar to what we saw over the 21 22 Presidents' Day weekend and were able to find other 23 times in our service history where we've seen similar 24 heating degree incidents. But they've never been 25 accompanied by the sort of price spikes that we've seen.

I think part of it while we were looking at the weather and we were anticipating preparing for a cold weather incident there were pieces of the weather incident that occurred well outside of where we were looking, in particular the freeze offs that Spire mentioned and the impact that had on supply.

Through us to a great degree we think about 7 8 this in some ways almost less as a weather incident and more as sort of a market event. As Mr. Cooper 9 10 indicated, we definitely think that extending this 11 beyond the regular 12-month period for recovery is what 12 makes the most sense for our customers and for the 13 utility. We have been thinking about it less in terms 14 of what would be the impact on the ACA and more in terms of what would be the total customer impact in terms of 15 their bill. As best from our current estimates what we 16 believe is that if we were to recover these costs over a 17 18 12-month period, residential customers depending on 19 service territory would see an increase between 40 and 100 percent in their total bill and large volume 20 21 customers would see an increase between 50 and 140 2.2 percent of their total bill. And recognizing the impact 23 that that would have on our customers, we're looking to 24 extend that period to any extent possible. 25 We do know that in order to do that we'll

> TIGER COURT REPORTING, LLC WWW.TIGERCR.COM 573.999.2662

likely need waivers of our tariff provisions regarding 1 2 our PGA, and we might also need an accounting deferral. Again, Mr. Cooper indicated the magnitude of the price 3 increase that would result and specifically when we 4 think about total 2020 costs, gas costs versus the 5 б February 2021 gas costs, in Warsaw, Lake of the Ozarks, 7 that's 592 percent more than what we saw in 2020 as a 8 whole and it's 500 percent more in Rogersville and 9 Branson. The majority of our systems are served off the 10 Southern Star Pipeline. While we did stay closely in 11 contact with Southern Star, we actually had nominations 12 that didn't appear the result of which we are looking at 13 potential OFOs. If they are assessed, we expect those 14 to be in excess of \$6 million. Part of that is based on 15 nominations for our PGA gas that didn't show up. Some 16 of that is based on activity of marketers. And of 17 course, as other people have mentioned, Southern Star is seeking waiver before the FERC and we are supportive of 18 19 that waiver. We're waiting to see the outcome. We did 20 not issue OFOs, Operational Flow Orders. We did notify 21 our customers of the OFO orders that were issued by 2.2 upstream pipelines. We were kind of closely monitoring 23 our system and we sent messaging to all customers about 24 how to conserve gas through text messages, through 25 increased pushing of social media posts and also through

> TIGER COURT REPORTING, LLC WWW.TIGERCR.COM 573.999.2662

direct emails to our customers where we had them. We were also in direct contact with our interruptible customers, and all of our interruptible customers is a direct result of us requesting it. Self curtailed down to heat only load and as a result of which we didn't find it necessary to curtail anybody.

I believe that we're kind of -- one second, 7 8 please. Just double checking your questions to make sure that I think to a certain degree we've covered 9 through that discussion all of it. Obviously we're 10 11 going to be submitting a written report that will show 12 with graphics the exact numbers that we're showing and also the potential impacts on other classes other than 13 14 just residential and large commercial. I think that 15 shows you the full range of what customers can be 16 expecting if we were to flow this through the PGA in the 17 12-month period.

We're supportive of doing this through the gas 18 19 cost recovery process with normal safeguards that that would entail. But for the longer term we're going to 20 21 continue to talk to Staff and work to see what solutions 2.2 can be found to minimize the impact on customers. То 23 the extent I can, I'd be happy to answer any questions. JUDGE PRIDGIN: All right. Thank you. Let me 24 25 see if we have any bench questions. Mr. Chairman?

> TIGER COURT REPORTING, LLC WWW.TIGERCR.COM 573.999.2662

1	CHAIRMAN SILVEY: Thank you, Judge. Yeah,
2	first off just a clarification. If I heard you
3	correctly, you said that you had 6.9 million in costs
4	for all of 2020 versus 34.4 million in costs just for
5	February of 2021. Are those correct figures?
б	MR. COOPER: Pretty close, Chairman. 34.3 to
7	34.4 for just February, correct.
8	CHAIRMAN SILVEY: That's yeah, okay, I just
9	wanted to make sure I heard that correctly. And then
10	you've talked about extended recovery period. How long
11	of an extended recovery period are you contemplating
12	needing?
13	MR. KAPLY: I don't think we've come to any
14	firm conclusions. We're in contact and conversation
15	with our sort of folks who are connected more closely to
16	the customers in the service territory which are
17	normally our growth and development people who have a
18	good sense of what can our customers tolerate. I would
19	say that we're thinking in excess of five years.
20	CHAIRMAN SILVEY: Okay. That's helpful. All
21	right. Thank you, sir. Thank you for the presentation.
22	No further questions, Judge. Thank you.
23	JUDGE PRIDGIN: Mr. Chairman, thank you.
24	Commissioner Rupp, any questions?
25	COMMISSIONER RUPP: No questions at this time.

Г

1	Thank you for the presentation.
2	JUDGE PRIDGIN: Thank you. Any questions from
3	Staff? All right. Hearing none, that concludes the
4	presentations from the gas utilities. I would remind
5	everyone under the previous Commission order anyone who
б	wants to comment on today's presentation may do so by
7	filing comments in EFIS and the deadline for those
8	comments is April 8. I believe Staff still has a report
9	to file around April 22.
10	Anything further from the bench before we go
11	off the record? All right. Hearing nothing, then that
12	concludes today's presentation. Thank you very much.
13	We are off the record.
14	(Off the record.)
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	

1	CERTIFICATE OF REPORTER
2	
3	I, Beverly Jean Bentch, RPR, CCR No. 640,
4	Certified Court Reporter with the firm of Tiger Court
5	Reporting, LLC, within the State of Missouri, do hereby
6	certify that I was personally present at the proceedings
7	had in the above-entitled cause at the time and place
8	set forth in the caption sheet thereof; that I then and
9	there took down in Stenotype the proceedings had; and
10	that the foregoing is a full, true and correct
11	transcript of such Stenotype notes so made at such time
12	and place.
13	Beverly Jean Bentch
14	
15	Beverly Jean Bentch, RPR, CCR No. 640
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	

AO-2021-0264, Vol. I Index: \$1.7..80

\$	0	2.0 9:13	42 46:9
		2.5 16:16,17	4240-4.018 12:14
\$1.7 45:14	0 7:16	20 12:14 13:4,25	44 36:4
\$10 45:9,12		20-year 23:13	44.86 35:14
\$15.4 45:15	1	200 9:13 14:3 20:13	45.86 35:21
\$195 16:10,19	1 36:9,19 37:8,12,19	2008 36:3	5
\$2 9:14 45:5	1,100 35:2	2009 36:2	
\$2.2 45:8	1.2 6:21	2014 9:10 27:6	5 20:20 21:11 28:25
\$2.50 53:20	10 14:6 15:2 18:2	2014-15 9:13	36:22 44:20 47:4
\$2.65 10:22	21:13 22:18 39:23	2015 9:10	50 34:19
\$20,000 9:7	10-day 42:19	2020 22:9 34:17 53:25	50.58 35:19
\$21.8 45:11	105 45:3	2021 3:4,8 27:6 34:15	6
\$3 9:14 10:23,25	11 15:2 44:25 46:8	54:2	
\$30 9:6	110 36:3	22 3:17 4:25	6 22:23 27:20 38:23
\$34.3 54:3	112 45:3	23 3:8	6.9 54:1
\$35.5 45:13	11:06 3:9	25 22:24	60 13:4,10
\$40 9:11	12 15:6,12,20 22:15	26 21:11,14	622 45:6
\$5 24:8	39:23	27 13:25	64 37:21
\$50 9:11 34:22 35:21	13 53:16	29.5 37:17	64.44 37:12
\$50,000 35:2	130,000 33:8	3	
\$52 34:19	14 27:17 37:21		7
\$60.6 34:16	146 46:8	3 4:12 6:21 10:2 24:7	7 23:1 28:25 38:23
\$600 9:14 14:3 20:13	14th 44:11,24	37:20	46:21
24:7	15 7:9 15:20 22:18,24	30 13:4	7.23 35:16
\$620 53:21	15th 44:11,24	300 9:13 14:3 20:13	70 13:11
\$8 28:25	16 38:1 40:20	31 34:18	77 44:23
\$9.7 45:10	16th 7:8,10	32 37:11	79 44:25
	17 38:1 53:16	33 7:17	79.5 37:17
-	18 15:13 22:23	34 7:18	7:00 7:8
-1 7:15	19,300 52:21	35 36:23	
-10 7:16	190 28:23	36 37:1	8
-16 37:18	1989 44:17	37.63 35:17	8 3:19 38:23
-7 36:11	2	4	80 13:4
	2 24:7 37:13	4 7:16 22:17,19 48:11	

AO-2021-0264, Vol. I Index: 90..base

	adding 24:23	Ameren 3:22 31:13	area 6:23,24 7:15,18
9	additional 30:13	32:1,3,12,21,22 33:7 34:2,18 36:14,22	8:11 52:23 53:3
90 46:22	40:25 45:21,23 54:8	38:24 40:3,11,16 44:9,	areas 6:23 8:25 10:12 34:11 45:1,2,21 46:8
96.44 35:22 37:10	address 5:2 6:9,11 48:22 55:5	11 46:24 49:19	52:22 53:2,4,7
98,000 46:11	addressed 5:77:3	America 33:18	Arkansas 10:9
·	33:5 52:19	amount 16:16,17	arrange 15:1
Α	adequate 34:24 39:24	amounts 22:9 27:25 28:25	arrangements 14:17 16:9
a.m. 3:9 7:8	adjustment 19:21	and/or 54:25	assemble 54:14
AAO 46:24 49:20	20:19,20 21:2 33:22, 23 36:21 37:2,11,22	Andrew 32:22	assess 54:14
AAOS 23:2	38:3 46:19	annual 33:23 45:15 53:11	assessing 28:17
ability 28:18	adjustments 54:12	Annually 45:10	assigned 3:7
absolutely 49:14	administer 38:3	Annually 45:10	assist 6:14 33:1
abundant 10:21	advance 26:14		Association 18:17
ACA 21:5 23:5 35:25 36:11,25 37:3,16,20,	adversarial 3:12	answering 33:2 anticipated 45:24	associations 18:24
25 52:25 53:4 54:18	advisories 39:23	anticipation 29:18	assuming 37:14
access 22:12 33:16	advisory 8:13	AO-2021-0264 3:6	asterisk 34:12
accompanied 55:25	Affairs 32:25 43:22	AD-2021-0204 3.8 Aplington 6:5 14:20	Atmos 10:13
accomplish 38:1	52:6	26:3 28:13,19 29:4	attempt 49:15
account 11:25 28:22	affected 44:7	30:3	attention 44:15,19
accounted 20:22	affidavits 8:14	apologies 55:14	audio 9:5 30:9,11,12
accounting 21:14	affordability 7:2 11:2	apologize 33:7 49:6	automated 19:12
38:2	affordable 10:21	Appearing 32:22	avenues 36:6
accounts 37:3	agency 24:11	applaud 31:4	average 13:17 36:4
achieving 54:23	agenda 44:5	application 25:11	avoid 35:6
acknowledgment	agreed 21:16	applications 8:13	aware 15:8
31:1	agreement 14:12	appreciates 52:10	awhile 38:22
acquire 4:20	agreements 14:17	approach 21:17	
actions 5:13	ahead 14:20 50:16	approaches 20:10	В
active 19:22 20:1 24:15,17	51:8,9	approved 21:16	
activity 34:21	albeit 38:5	approximately 34:15	back 9:10 12:5 16:23 26:17 27:17 35:16
actors 18:19	allowed 37:10	52:21 53:20 54:1	36:3 48:9 55:19
actual 35:20	allowing 3:21	April 3:17,19 4:25 36:9	background 5:21
add 55:3	alternatives 5:10		32:11,20 33:3 48:24
	altogether 28:13 30:9	arcs 55:21	balance 15:9 47:24
adder 37:21		arctic 29:11	base 6:20 45:20 53:6

TIGER COURT REPORTING, LLC 573.999.2662 WWW.TIGERCR.COM

AO-2021-0264, Inviek: based..communications

based 13:3,11,15 14:17 34:21	bring 9:24 14:24 15:1, 22,24 17:4 28:6 49:24	causing 8:3	coast 8:1 12:3
		caution 22:3 27:7	cold 3:4 4:23 5:6 7:6,
baseloads 39:14	bringing 15:8 39:18	CCF 46:21	11,14,22 13:3,6,21 19:2,16 42:19 44:10,
bases 9:17 10:2	brought 6:12 14:16	ceasing 8:6	12 45:18 48:14,15
basically 11:7,13,24 12:2 37:3 38:1 42:23	budget 34:18	cent 22:17 35:22	49:9 52:13 53:21 55:18
basins 22:13	buildout 11:11	36:22 37:21 40:20	colder 7:18,19
	burning 16:1	Centerpoint 10:8	
basis 15:23 31:19 53:11 55:1	business 47:5	cents 20:20 21:11,13,	coldest 8:20 17:6 25:8
Beatty 43:11,17 44:3	businesses 18:24	14 22:15,23 35:16,17, 19 36:3,4,11 37:11,12,	Coleman 31:6 42:7
48:11,15,21 49:23	buy 11:12 27:24 41:15	17,18 38:1 46:21,22	collect 16:23 17:1
50:23	48:18 49:3	Chairman 4:2,4 5:18	collected 23:6
behalf 5:24 15:2 40:2	Byrne 32:24	6:8,16 8:18 26:10,11, 25 27:15,23 28:11,15	Columbia 33:9
believes 54:21	C	29:2,9,15,20 30:15	combination 53:9
bench 3:15,21 4:1,3 5:22 26:9 30:20 41:3		31:9 41:3,4,24 42:1 48:6,7,12,17 49:1,11,	combined 53:1,2
beneficial 34:7	calculation 16:13	17 50:1	comfortable 43:3
	21:5 22:2 31:21	change 12:5 37:4	
benefit 36:8 52:3	calculations 16:18 23:8 34:1	changed 12:4	comment 28:3 29:15
benefited 38:19,20	calendar 34:17	channels 54:9	comments 3:18 5:17 6:9 35:5 40:25
big 11:24 12:11 34:14		charges 40:6	commercial 14:8
bill 22:17,24 31:18 43:23 48:21	call 6:4 9:9 21:20 27:18,21 30:19 39:5	chat 31:15	17:23 53:7
billed 19:24	called 54:17	cheaper 10:3	Commission 4:7,19, 21 5:13 6:16 7:4
billions 10:14 12:19	calls 19:12	checking 55:20	12:14,21 13:2 14:21
bills 19:16	Calor 16:3	Christmas 44:17	20:15 24:10,22 25:25 26:5 33:5 40:18 49:21
bit 13:24 34:12 41:7,	camera 55:11	chunk 11:24	52:2,12,25 54:10 55:5
12 46:6,18 47:3 48:24	cap 21:10,13 36:22	city 6:24 7:6,15,18	Commissioner 4:2
blackouts 8:25	capacity 13:5 34:5	8:11 15:21 18:14	5:1,12 30:20,21,23 31:5,6,8,9,12 42:2,3,4,
blast 29:11	39:8	25:14 33:10 38:17	6,8,9,11 49:23 50:4,6,
blasts 19:12	Cape 33:11	clarification 26:20 48:9	8,10,12
blowed 35:9	captive 11:6,12	class 21:10	Commissioners
blowout 34:8	Carter 43:11,13,16 51:12	clause 33:22	5:17 6:17
Bluff 6:23	carve 14:19 18:1	clear 17:15	communicated 38:11
blunt 5:11		clearer 4:22	communication
Board 18:17	case 3:11 17:7 40:20 42:2	climbed 13:13	13:7 19:1 20:3,8 39:9
Branson 52:24 53:2	catch 48:25	close 49:13 54:2	47:19 54:10
breakdown 13:9	caused 43:6	closing 26:2	communications 38:7 44:8 46:18 47:3, 13

AO-2021-0264, Indek: bommunities..designed

· · · · · · · · · · · · · · · · · · ·			
communities 46:9	continually 23:16	credits 25:12	damages 16:14,22
community 18:16,20 47:6	continue 6:17 23:14	critical 8:12,16 18:25	Dana 43:21
companies 28:10	continues 54:14	critically 15:6	data 10:25 29:23 38:14 49:16
42:18 46:7	contract 17:18	CSR 12:14	
company 33:20	contracts 12:17	cubic 35:17	dated 11:1
43:19 46:17 53:18,24	17:19 20:9 24:13 33:19 53:9	current 23:7,8 34:20	Dave 42:15 50:14
compare 26:15	contrasts 45:12	35:4,14	day 4:9,10 7:9 13:2 14:15,18,19 15:3 16:7,
complaint 24:11	controlling 27:16	curtail 18:6,22 39:6 47:9,16	15,16 18:10 24:22
29:25 30:1,7,13	conversation 48:24	curtailed 18:13 46:16	27:20 44:17,25 55:20, 22
complaints 30:3,7,10	conversations 21:7	47:17	days 7:17 10:19 15:18
completed 21:15	24:1 29:17 31:11	curtailment 8:24	16:2 17:6 25:8 28:7
complex 8:23	Cooper 51:5,20,22,24	18:5 19:2,3,6,11,13	29:16,19 30:8 43:4
compliant 28:12	Corp 43:20	39:5	44:10,13,14,21,24,25 45:18
complications 29:13	Corporate 32:25	curve 11:2	deadline 41:10
component 22:15	correct 5:24,25 43:12	customer 17:23 20:12 21:12 22:18	Debruin 43:24
compute 31:22	51:21,22	39:1,4 40:2 46:11	decade 11:16,21,25
computer 38:22	cost 13:17 19:19	52:18 53:6	12:7
concern 5:7 25:10	33:23 35:20 49:10	customers 4:18,22 5:2,8,10 6:13,21 12:11	decades 8:21
28:17 40:11 43:6 50:21	costs 23:5 34:15,16 36:16 38:6 44:6 45:7,	13:6 14:8,16,18,19,25	degree 7:17 44:24,25
concerns 8:4 25:8	10,15 46:5 48:13 54:1,	15:20,22,25 16:4,5,24 17:2,12,13,14,17,18	47:25 55:20,24
28:19 29:1 50:18	2	18:6 19:13,15 21:1,10	delay 38:21
conditions 53:13,17	counsel 3:12 6:5 32:25	23:9 24:16 25:10,14 26:1,7 33:8,25 35:10,	deliver 16:6,12 28:12 39:11 40:6 41:18
conference 38:10	count 46:11	14,25 36:1 38:6,8,13,	delivered 16:7 39:13
conservation 19:3,8,		20,25 39:6,12,17,22 40:10 41:16,20 42:25	40:1 43:3,5 46:15
14 38:9,12	counties 46:9	46:11,14,15 47:7,14,	deliveries 34:17
conserve 18:25 54:9	country 4:8 8:1 10:12 40:5	16,19 52:22 53:7 54:7, 9,20,23	42:17
consistent 28:10	couple 9:17 10:7	9,20,23 customers' 17:5	delivering 42:20 43:1
37:19,20,23 38:4	11:3,16 20:11 21:9		delivers 41:12
consists 53:6	36:19 46:16 48:8	cut 5:20	delivery 39:11,21
constant 20:3,8	court 32:10,11 55:6	cycle 34:5 39:19	40:12
constrain 9:15	cover 16:9,12,14,22 17:5 33:3	D	demand 8:21,22 9:16 29:5 45:17
constraints 8:8	coverage 38:15		departments 25:17
contacted 46:17	coverage 36:15	daily 13:22,24,25	describe 41:7
contacts 47:18	credit 20:23 28:20,25	15:9,23 24:12 27:18, 20 30:5 45:19 46:4	design 13:2 44:25
contesting 51:10	37:11	54:11	designed 36:15
			uesigneu 30.15

AO-2021-0264, Vol. I Index: detail..FERC

detail 41:22	E	enhance 24:25 25:1	Express 33:16
determinant 13:3	E	ensured 45:17	extend 36:25
determinations 47:1	eager 16:25	entered 29:5	extended 20:23
determined 13:3	Earhart 43:22	entire 15:10 17:6	extending 54:21
development 11:21	earlier 28:23 44:21	48:13,25 53:25	extra 8:23
47:6	early 19:23 26:17	entities 28:22	extraordinary 52:14
Dexter 33:12	easier 38:3	essentially 16:14	54:6
Diana 43:14 44:3	east 6:22 7:19 8:1	established 52:25	extreme 12:19 17:11, 13 40:17
Dietrich 31:14,15,17 51:6,9,10,17,18	9:23 10:1 11:10 12:2,3 15:15 22:11,14 27:19	estimated 10:14 35:13	extremely 39:9 41:15
difference 27:8 28:5	33:10,15	estimates 22:4	46:5 52:13
difficult 14:5	Eastern 33:14,17	evaluate 23:14	F
digits 40:14	echo 31:9	evaluating 21:21	
directing 34:9	EDG 46:21	evenings 18:9	fact 36:9
direction 12:4 36:12,	education 19:15	event 3:4 4:9,15,24	factor 20:19 21:3
13	effective 36:9	5:6 6:20 7:21 10:11,20 12:12,19 26:19,22,23	33:22 36:21 37:16
Director 6:7 32:23,24 43:23 52:5	effectuate 36:23	27:6,10 29:18 30:25 35:18 39:1,5,6,10	FAF 37:2,8,18,22 38:3 failed 16:12 28:12
disaster 31:10	Eggers 32:3,4,7,13, 14,16 41:11 42:16,21	41:17 42:19 44:6,9,10,	faint 55:9
discrepancy 27:19	43:2	19,21 45:5,25 46:5,13 47:5,8,17 48:14,16	fair 41:19
discussed 30:10	elaborate 42:18	53:22 54:6	fairly 28:21 43:3
discussion 25:4 52:8	electric 8:21 26:20	events 11:17,18	53:14
distribution 23:17	51:13	23:11 44:12,18 52:14	fallen 37:20
25:1	electrics 27:8	exact 21:9 29:19	fared 12:8 35:11
District 43:18 45:13	EM&T 32:23	38:13 49:7,8	favor 36:5
diversity 11:14 22:12	email 19:12	exceeded 45:2,3	February 3:4 7:9,17
23:15 25:3	emails 19:9	Excuse 51:6	10:8 15:6,12,13 22:8
divided 37:25	Empire 43:18 45:13	existing 54:18	34:15,21 39:23 44:20 45:7,8,14 47:4 48:10,
docket 4:20 26:5 30:2 35:4,5 41:23 51:12	51:10,13	expanded 37:8	13,19,20 49:4,5 52:14
52:3	Enable 8:12	expect 14:16 37:16 48:2	53:16 54:2
dockets 24:18 49:13	encourage 17:4 54:9	expected 35:18	feel 41:22
dollar 22:9 40:15	end 14:6,7,25 15:9,20, 25 16:5 19:10 25:6	-	fees 17:15
dollars 10:15 12:20	27:25 28:6 29:25	expecting 39:11	feet 35:17
dramatic 12:5	37:12 41:23 42:18,25 53:21	expenses 40:10	fell 53:16
due 3:17 4:25 29:22	energy 4:11 8:23	expensive 41:16	felt 10:11 20:22 24:14
45:22,24 46:14	10:21 38:9,12 43:23	explicitly 36:15	FERC 24:17 35:4
	54:10	explore 24:9	50:24

AO-2021-0264, Vol. Index: field..highest

field 7:24 18:11	forecasting 21:19	gates 17:4	happen 19:20 21:23
file 3:5,18 8:13 12:25	27:1	general 6:5 29:10	23:12 27:11
19:21 52:2	forecasts 22:3 44:20	33:3 35:23	happened 5:5 23:18 44:22
filed 21:13 24:11,21	fortunate 35:6 39:19	generally 55:10	
29:25 30:1,3 35:4 36:8 51:13	40:1	generation 8:24	happening 8:8
	fortunately 47:12	generational 26:21	hard 25:16 55:7
filing 20:18 21:2,23 33:22 36:21	forward 5:14 25:24	George 6:5 29:14,19	harder 22:22
filings 10:7	27:12 49:25 52:9 55:1	Girardeau 33:11	hardships 17:11,13
financial 10:7	frame 19:21 29:3	give 27:23 41:21 49:6,	head 31:3
	freeze 8:2	9 53:23	headline 10:8
financing 10:16	freezing 23:23 47:11	glad 7:2 25:21	headlines 10:7
find 55:22	Friday 54:13	Global 30:4	headset 55:11
fine 29:22 49:11	front 24:17	goal 38:4	hear 3:24 4:3 11:23
firm 13:4 14:18 16:4,	fully 4:18 16:19	-	42:22
24 17:2,20,21 20:9 25:14,15 34:24 39:7	furthers 13:19	Godat 6:5 28:4	heard 4:10 50:18
fit 9:6	future 22:5 27:2	good 3:2 5:23 6:3 10:18 18:19 24:20	55:17
fixed 53:9		25:16,22 26:8 38:19	hearing 3:20 4:1 5:15
	G	40:12,22 41:2	30:21 32:10 40:25
flat 37:15		grabbed 44:15,18	43:9 55:8
flatten 20:25	Gallatin 52:23 53:3	graph 9:6 13:13	heating 4:16 7:17 44:23,25 55:20,24
float 13:24 35:18	Gap 30:5	gratified 38:15	heavy 32:19
floated 13:25 23:3	gas 3:14 4:17 5:4 6:6,	great 38:24	-
flow 14:23 15:7,12,14	7,21 7:9 8:12,22,23 9:4,9,14 10:13,14,15,	greater 52:18	hedge 39:13
16:23 21:4 39:22	21 11:12,20,22,23	group 20:8 27:22 28:3	hedges 13:18 28:9 34:6 53:9
flowing 25:18 35:15	12:6,8,10,20,25 13:8,	29:15	hedging 12:17
flows 34:12	13,15,17 14:3,10,14, 16,24 15:1,5,9,11,22,	groups 40:2	
focus 6:13	25 16:3,6,7,11,25 17:4	Grubbs 32:25	held 3:8 47:12
focused 7:1 23:20	19:19,21,25 20:2 23:5	guarantees 25:12	helped 12:15 18:13 47:17 53:13
33:9	24:20 25:9,18 27:8,9, 22,25 28:2 29:15	-	helpful 49:13
focusing 38:9	32:24 33:8,17,18,20,	guess 53:5	-
folks 18:9 20:2	21 34:4,6,14,16,20 35:1,11 36:15 38:18,	guidance 27:23	helps 13:8
follow 31:22 42:16	25 40:9,13 41:14,16	gulf 12:3,5	hey 8:6 32:16
force 8:5	42:24 43:19,20,22,25	guys 28:15 29:10 31:2	high 7:15,16 8:21 9:7
forced 16:5	46:4,15,16,19 50:25 51:15 52:7,12,14,20	guys' 31:3	13:14 16:2 19:3 24:15 46:4,5 50:20
Ford 18:14	53:8,10,14,15,25 54:2		higher 19:16,17 27:20
forecast 15:4,5	gases 21:24	Н	36:18
	gate 14:25 15:21 16:8,	handful 16:18	highest 9:11,20 36:2
forecastable 53:17	13 25:14		_

AO-2021-0264, Volndex: highlight..larger

highlight 7:1 11:5,19	52:13,18	interested 31:10	Joseph 6:24
13:9	impediments 5:9	interests 5:15	Judge 3:2,7 4:4,24
historic 53:15	implemented 54:7	interfering 32:10	5:16,18 6:1 26:8,11 30:17,18 31:5,8,12,14,
history 55:23	important 11:14	interim 37:16	16,25 32:6,8,15 41:2,
hit 8:18 22:21 29:16	16:21 17:3 21:19 31:11	internal 30:7	25 42:1,6,9,11,13,14 43:13,15 48:5,7 50:2,
hitting 9:7		interruptible 35:24	4,8,10,12,14,16 51:3,
holidays 54:13	improve 25:21 incidents 55:24	interruption 12:12	6,8,18,23 52:4 55:7,13
Holsman 31:7,8 42:8,		interstate 8:8,17 11:6	jump 14:20 27:23
9 50:9,10	inclined 55:10	15:3 23:17	Justin 6:6 29:19
honest 18:8	increase 19:19 22:13, 15,17,19,22 23:1	intervenors 20:15	
Honor 51:22	35:22 38:5 40:20	interviews 19:7	КК
hot 13:21	53:20	38:11	Kansas 6:24 7:6,10,
hourly 9:2 35:1	increased 9:16 10:11	investigating 49:8	15,18,24 8:11 18:14
hours 18:9,10	20:13	investigation 7:20	38:17
house 45:9,13 46:20	increases 21:22 35:20 53:24	50:24	Kaply 51:4,20 52:5 55:3,4,8,10,14
47:2	index 16:2,15 22:21	investigatory 4:20	keeping 17:25 18:21
huge 40:15	30:5,8 50:18,19 53:10	investor 3:5 52:21	37:18,20
human 8:12,14	indices 24:12 50:21	invoices 19:25	Kenney 30:20 42:2
hundred 11:23 35:17	individual 43:4 52:18	issue 10:6 17:8 18:5	Killeen 43:23 48:23
hundreds 18:18	individuals 18:23	issued 15:7 38:8	49:6,14
·	industrial 14:8 17:23	47:22	kind 8:22 9:4 11:5
I	47:7	issues 7:23 20:7 24:19 46:12 47:10,11	13:9 15:14 20:19 23:3 26:7 29:9 37:6 39:3
idea 53:23	industry 24:1 27:9	52:15	40:6 45:11
identified 33:4 34:10	information 3:14 4:6,	issuing 8:5	
54:12	21 32:20 41:6 49:15 52:12 54:15	item 20:18 23:2 24:19	L
idled 18:15	injected 13:15	25:5	Lake 52:23 53:1
illiquid 24:14	-	items 20:14 25:2	land 19:18 21:25 24:8
impact 3:5 4:17 9:16	insight 6:8	· · · ·	40:23
20:8 21:1,3 22:24 26:7 33:25 34:7 35:10,13	integrity 17:6	J	landed 24:20
36:1,18 40:17 44:14	intend 5:23 30:14 32:9	Jackie 41:1	landing 23:7
49:10 53:24 54:7,19	intending 5:20	Jefferson 33:9	language 40:4,8
impacted 4:15,16	intent 4:20	Jermaine 32:25	41:8,21
10:12 19:6 22:6 27:4	intentionally 41:18	job 38:19	large 10:14 12:1 16:7
impactful 14:2	interconnect 9:25	joined 42:2	43:2 47:14,15,25
impacts 4:11,23 5:8 14:1 20:12 21:18	interest 24:16 54:22	joint 24:4	largely 37:1
22:18,22 23:9 26:1	1110 04.22	Joplin 6:24 8:11 18:7	larger 6:23 14:7
31:18 44:18 46:13			
	1	1	1

AO-2021-0264, Vol.Ihdex: laser..mitigate

laser 23:19	long-term 24:25	manner 43:3	mentioned 4:24
Law 3:6	longer 26:22 36:10	map 7:8 11:3 46:9	14:24 26:17 28:5,15, 23 29:24 42:17 49:18
lay 20:14	looked 36:20 55:19	Marcellus 8:2 9:25	52:4 53:19
layering 34:5	losing 18:2	11:19 12:4	mess 25:15
lays 13:2	lot 5:21 7:12,24 9:21	March 3:8	met 20:5 45:17
LDCS 52:16	19:1 21:21 22:21 25:16,17 32:18 34:25	market 9:21 10:15 11:22 13:23,25 14:1,	Metro 6:24
leadership 19:6	38:11 49:7 55:16	14 16:2 24:6,11 30:12	Meyer 32:2,23
learned 23:11	Louis 6:23 7:16,19	37:15 41:14 48:18 49:4 52:15 53:12,17,	mid 11:9 33:9 38:16
legal 29:8	38:17	18,20	Midcontinent 9:20,
Lessons 23:11	low 7:15,16	marketer 14:9 16:5,7	23 10:3 33:15
letter 25:12	lower 24:8	45:22 46:3	midstates 43:19 45:9,11 46:20
letters 29:5	luckily 18:22	marketers 8:4,16 14:12,22 15:1,8,19,20,	Midwest 7:21 9:20
level 4:12	M	24 16:6,12,14,18,23	Mike 43:17 44:2
levelize 21:3	IVI	17:1,4,13,16,19 25:7 28:1,11,24 29:6 42:24	million 6:21 16:10,20
Liberty 3:22 43:10,19	Madam 32:11	46:1,2 47:23 48:1,19	28:23,25 34:16,18,20,
45:23 46:6 47:23	made 21:5 45:23	49:4,8	22 35:21 45:8,10,11,
49:18 50:21 51:10	46:25 47:18 54:11	marketing 42:18	12,13,14,15 54:1,3
life 33:8	magnitude 26:24 53:23	markets 19:5	mimic 49:21
lifetime 11:17 27:10 30:25	main 8:10	Martin 43:24	minimize 23:9
lifting 32:19	maintain 15:9 17:6	material 12:11 48:3	minimum 54:21,24
limited 11:12 33:23	maintained 18:12	math 37:1	Minnesota 10:9,10
Lincoln 4:9		Matt 6:4 17:10 52:5	minor 47:10
Liner 43:21	majeure 8:5	Matter 3:3	minus 20:20 36:22,23
lines 14:22 47:21	major 40:10 43:5 52:22	maximize 45:20	Mississippi 12:3
54:10	majority 12:11 28:22	maximum 45:5	Missouri 3:22 6:22 7:13,14 8:9 10:6 11:5
listen 3:17	46:16	meant 26:22 27:2	12:20,25 13:1 18:17
listening 21:20	make 12:18 15:7,10	measures 54:8	31:13 32:2,3,12,21,22 33:8,9,15,17 34:2,19
litigation 29:6	16:3,8 20:4,5,20 28:3 30:18 41:19 44:4	mechanism 20:21,22	36:14,22 38:16,17,24
lived 10:19	54:25	23:4 36:15 37:7	40:3,11,16,24 45:1 46:8,10 52:7,22
load 18:19,21	making 14:5 18:11	mechanisms 46:24	Missouri's 3:14
load-shedding 4:13	29:16	media 19:5,22 38:11, 12,15,18	Missourians 12:23
local 19:4	manage 36:17		13:8
located 46:10	Manager 32:23	meet 34:3,25 megawatt 9:6	mitigate 13:19 20:17
long 12:13,22 39:10	Managers 43:22,24	-	25:25 26:6 33:25 40:19 54:6
54:13	manages 53:8	members 33:1	40.13 04.0

AO-2021-0264 dexVolmitigated..participating

22:13 9:3:10:13:15,21:11:22 O option 21:6 mitigating 34:7 35:8 34:6 35:1 42:24 33:8,18 34:6 35:1 42:24 43:19 occurred 44:13:55:20 octurred 37:19 0:10:10:12:12,14:34:9 mitigation 12:15;24 navigato 14:6 navigato 14:6 october 19:20:21:23, orders 37:19 orders 37:19 orders 37:19 orders 37:10 orders 37:10 orders 37:10 orders 37:10 orders 37:11 offering 38:10 orders 37:11 orders 37:11 orders 37:11 orders 37:11 orders 37:10 orders 37:10 orders 37:11 orders 37:10 orders 37:11 orders 37:10 orders 37:10 orders 37:11 outcome 40:22 modifications 54:25 neighbors 25:19 offset 16:24 17:2 outcome 40:22 outcome 40:22 moth 10:16 37:1 news 10:18 19:4 16:10 31:19 40:44:18 over/under 23:6 over/under 23:6 moth 10:16 37:1 nore ortes 31:11 nore ortes 43:11 one- ortes 44:13 over 10:24 over 10:24 over 10:24	mitigated 12:13,18	natural 4:17 5:4 8:22		15
mitigating 34.7 35.8 36:5 14:14 21:24 33.8;16 34:6 35:1 2224 33:16 50:25 52:7 53.8;15 occurred 44:13 55:20 occurrence 37:19 options 23:20,25 26:6 36:14,19 49:18, 22 mitigating 12:15,24 13:10 36:23 39:14,15 navigate 11:15 navigate 12:17 occurrence 37:19 october 19:20 21:23, 25 order 15:7,12,14 34:9 39:22 MMBTU 9:16 10:22 16:15 53:21 necessarily 26:24 ODA 34:10 order 15:7,12,14 34:9 39:22 moderate 12:17 negative 37:11 offering 38:10 outges 39:1,4 moderate 12:17 negative 37:11 offering 18:10 outges 39:1,4 modifications 54:25 neighboring 25:20 offset 16:24 17:2 outstanding 17:8 money 12:23 news 10:18 19:4 16:10 31:19 404 41:4 overlook 30:19 morte 32:22:22:31:11 nore 20:11 noise 52:13 2:11 overlook 30:19 morte 32:22:22:23:11 nomes 39:18 overlook 30:19 overlook 30:19 morte 32:22:2			0	-
36:5 50:25 52:7 53:8,15 00:0000000000000000000000000000000000	mitigating 34:7 35:8	-		-
Imagatoli 13:10 36:23 39:14,15 navigate 11:15 October 19:20 21:23, 25 order 15:7,12,14 34:9 39:22 MMBTU 9:15 10:22 necessarily 26:24 ODA 34:10 orders 3:16 14:23 orders 3:16 14:23 models 23:16 needed 8:12 15:8 odorization 47:10 ordares 3:16 14:23 orders 3:16 14:23 moderate 12:17 negibors 25:19 offering 38:10 outcome 40:22 outreach 19:1 moderate 12:17 neighboring 25:20 neighbors 25:19 offs 8:2 outreach 19:1 moderate 12:17 neighbors 25:19 netwith 19:14 10:44 17:2 outreach 19:1 outstanding 17:8 monderate 12:17 neighbors 25:19 offs 16:24 17:2 outreach 19:1 outstanding 17:8 molecules 14:14 nervous 18:9 OFO 14:22 15:8 orerlox 8:11 17:8 45:18 overlox 8:0:19 month 4:97:17 10:23 nice 23:11 41:13 noise 5:21 32:11 noise 5:21 32:11 ore-year 31:18 33:24 owerlox 30:19 mortivational 40:9 non-contested 3:11 nomeformance 17:16 open 40:25 44:8 owership 24:42:53 motigation 139:3 49:19 notice 29:10 operational 7:22 39:3 op	36:5			
mix navigator 14:6 25 order 15:7:12:14:34:39 39:22 MMBTU 9:15:10:22 necessarily 26:24 ODA 39:22 orders 39:22 models 23:16 necessitated 45:21 odorization 47:10 orders 39:12 orders 39:14 outages 39:14		navigate 11:15		22
MMBTU 9:15 10:22 16:15 53:21 necessarily 26:24 necessitated 45:21 ODA 34:10 orders 3:16 14:23 models 23:16 necessitated 45:21 odorization 47:10 organization 30:4 moderate 12:17 negative 37:11 offering 38:10 outcome 40:22 moderate 12:17 neighboring 25:20 offs 8:2 outreach 19:1 moderate 12:17 neighboring 25:20 offs 8:2 outreach 19:1 moderate 12:17 neighboring 25:20 offs 8:2 outreach 19:1 moderate 12:13 news 10:18 19:4 offset 16:24 17:2 outstanding 17:8 money 12:23 news 10:18 19:4 16:10 31:19 40:4 41:8 overlook 30:19 month 49:7:17 10:23 nice 23:11 41:13 OFOS 8:15 17:8 45:18 overlook 30:19 morning 3:26 63:7:0 nomination 39:18 one-year 31:18 33:24 ower 16:14 28:24 29:6 moving 21:21 36:12 nordera 45:6 operation 17:25 39:3 owerla 35:13 motivational 40:9 nortece 8:5 notifications 19:13, 14 operation 17:22 paid 41:14 moves 29:17 nortece 8:5 notifications 19:13, 14 operational 7:22 operation		-		
16:15 53:21 necessitated 45:21 odorization 47:10 organization 30:4 models 23:16 needed 8:12 15:8 odorizers 47:11 outcome 40:22 moderate 12:17 neighboring 25:20 offs 8:2 outcome 40:22 moderate 10:20 neighboring 25:20 offs 8:2 outcome 40:22 moderate 12:17 negative 37:11 offset 16:24 17:2 outstanding 17:8 moderate 12:13 nervous 18:9 OFO 14:22 15:18 overlap 34:11 money 12:23 nice 23:11 41:13 OFOS 8:15 17:8 45:18 overlook 30:19 month 4:97:17 10:23 nice 23:11 41:13 OFOS 8:15 17:8 45:18 overlook 30:19 months 10:16 37:1 noise 5:21 32:11 OrC 34:4 overlook 30:19 moths 10:16 37:1 nomination 39:18 one-year 31:18 33:24 overlook 30:19 motivational 40:9 non-contested 31:11 open 40:25 44:8 overlook 30:13 moving 21:21 36:12 noted 45:6 operational 7:12 46:8 penal 4:19 motivational 40:9 notice 29:10 operational 7:22 39:3 overlook 30:19 mulfied 9:5 30:9,11, 12 notifications 19:13, 3		necessarily 26:24	ODA 34:10	
models 23:16 needed 8:12 15:8 odorizers 47:11 outages 39:1,4 moderate 12:17 negative 37:11 offering 38:10 outcome 40:22 modifications 54:25 neighbors 25:19 offs 8:2 outreach 19:1 molecules 14:14 nervous 18:9 offs 8:2 outreach 19:1 molecules 14:14 nervous 18:9 OFO 14:22 15:18 over/under 23:6 Monday 54:13 news 10:18 19:4 25:16,23 38:10,18 OFO 14:22 15:18 over/under 23:6 month 4:9 7:17 10:23 nice 23:11 41:13 DFOS 8:15 17:8 45:18 overlook 30:19 months 10:16 37:1 noise 5:21 32:11 Off 9:8:15 17:8 45:18 overlook 30:19 motivational 40:9 non-contested 3:11 nonperformance 17:19 0eration 17:25 move 3:22 22:4 31:13 nonperformance 17:16 operational 7:22 overlook 3:19 motifications 19:13, 12 notifications 19:13, 14 operational 7:22 operational 7:22 paid 41:14 motival 39:3 49:19 notifications 19:13, 14 operational 7:22 paid 41:14 paid 41:14 multi 39:3 49:19 notifications 19:13, 1		necessitated 45:21	odorization 47:10	
moderate 12:17 negative 37:11 offering 38:10 outcome 40:22 moderated 10:20 neighboring 25:20 offs 8:2 outreach 19:1 moderated 10:20 neighbors 25:19 offset 16:24 17:2 outstanding 17:8 molecules 14:14 nervous 18:9 offor 14:22 15:18 over/lunder 23:6 Monday 54:13 news 10:18 19:4 25:16,23 38:10,18 OFO 14:22 15:18 overlap 34:11 money 12:23 nice 23:11 41:13 OFOS 8:15 17:8 45:18 overlook 30:19 month 4:9 7:17 10:23 nice 23:11 41:13 OFO 34:4 overlook 30:19 months 10:16 37:1 nomination 39:18 one-year 31:18 33:24 owerd 17:9 motivational 40:9 non-contested 3:11 noperformance 17:16 open 40:25 44:8 moves 29:17 normal 13:20 35:19 operation 17:25 39:3 owerds 5:2:2 45:1 muffled 9:5 30:9,11, notice 29:10 operation 17:25 39:3 operation 17:25 39:3 multi 39:3 49:19 notifications 19:13, 14 operational 7:2 path 41:14 mutt 32:9 Milt 46:21 40:2 36:19 36:19 36:19	models 23:16	needed 8:12 15:8	odorizers 47:11	Ũ
moderated neighboring 25:20 offs 8:2 outreach 19:1 modifications 54:25 neighbors 25:19 offset 16:24 17:2 outstanding 17:8 molecules 14:14 nervous 18:9 OFO 14:22 15:18 outstanding 17:8 money 12:23 news 10:18 19:4 47:21 48:2,3 51:11 overlap 34:11 month 4:9 7:17 10:23 nice 23:11 41:13 OFOS 8:15 17:8 51:81 overlap 34:11 month 4:9 7:17 10:23 noise 52:1 32:14 0:10 overlook 30:19 overlook 31:1 0:10 overlook 31:1 0:10 0verlook 31:1 <td>moderate 12:17</td> <td>negative 37:11</td> <td>offering 38:10</td> <td>. .</td>	moderate 12:17	negative 37:11	offering 38:10	. .
modifications 54:25 neighbors 25:19 offset 16:24 17:2 outstanding 17:8 molecules 14:14 nervous 18:9 OFO 14:22 15:18 over/under 23:6 Monday 54:13 news 10:18 19:4 25:16,23 38:10,18 16:10 31:19 40:4 41:8 overlap 34:11 money 12:23 nice 23:11 41:13 NiETRICH 31:24 OFO 14:22 15:18 overlap 34:11 month 4:9 7:17 10:23 nice 23:11 41:13 NiETRICH 31:24 OFOS 8:15 17:8 45:18 overlook 30:19 months 10:16 37:1 noise 5:21 32:11 noise 5:21 32:11 0:10 overlook 30:19 moring 3:2 6:3 7:10 nomination 39:18 54:11 one-year 31:18 33:24 over 16:14 28:24 29:6 move 3:22 22:4 31:13 nonperformance 17:16 open 40:25 44:8 overlook 30:19 moving 21:21 36:12 notice 29:10 openaig 26:5 operation 17:25 39:3 overlook 32:3 mulfiled 9:5 30:9,11, 12 notifications 19:13, 14 notifications 19:13, 14 39:15,22 operationally 34:24 33:13 multipliers 40:14 notifications 19:13, 14 November 19:20 36:19 operationally 34:24 33:13	moderated 10:20	neighboring 25:20	offs 8:2	
molecules 14:14 nervous 18:9 OFO 14:22 15:18 16:10 31:19 40:4 41:8 47:21 48:2,3 51:11 over/under 23:6 overlap 34:11 monday 54:13 news 10:18 19:4 25:16,23 38:10,18 0FO 14:22 15:18 16:10 31:19 40:4 41:8 47:21 48:2,3 51:11 overlap 34:11 month 4:9 7:17 10:23 13:12 28:8 48:13 54:2 nice 23:11 41:13 OFOS 8:15 17:8 45:18 47:20 overlook 30:19 months 10:16 37:1 noise 5:21 32:11 OFOS 8:15 17:8 45:18 47:20 overlook 30:19 morning 3:2 6:3 7:10 18:10 51:25 nomination 39:18 54:11 OFC 34:4 ower 16:14 28:24 29:6 move 3:22 22:4 31:13 32:1 43:10 51:4 nonperformance 17:19 open 40:25 44:8 47:19 48:4,21 54:11 owership 24:4 25:3 moves 29:17 normal 13:20 35:19 39:3 opened 4:19 owership 24:4 25:3 muffled 9:5 30:9,11, 12 notice 29:10 operational 7:22 14:23 15:7,12,14 35:8 39:15,22 paid 41:14 multi 39:3 49:19 notifications 19:13, 47:18 54:9 notifications 19:13, 14 operational 7:22 14:33 16:7,12,14 35:8 39:15,22 paid 41:14 mute 5:20 muber 16:21 30:2 43:6 43:6 44:14 46:2,14,15 47:12 operations 6:6 8:7 25:11 33:4 43:17 44:6 47:12 participate 32:17 5:11 52:11 number 32:9 numbers 37:9 38:13 40:22 47:15 1:13 54:4	modifications 54:25	neighbors 25:19	offset 16:24 17:2	
Monday 54:13 money 12:23 news 10:18 19:4 25:16,23 38:10,18 16:10 31:19 40:4 41:8 47:21 48:2,3 51:11 overlap 34:11 month 4:9 7:17 10:23 13:12 28:8 48:13 54:2 nice 23:11 41:13 OFOS 8:15 17:8 45:18 47:20 overlook 30:19 month 10:16 37:1 noise 5:21 32:11 OFOS 8:15 17:8 45:18 47:20 overlook 30:19 months 10:16 37:1 noise 5:21 32:11 0hthoma 7:11,24 10:10 overlook 30:19 morning 3:2 6:3 7:10 18:10 51:25 nomination 39:18 54:11 one-year 31:18 33:24 0PC 34:4 ower 16:14 28:24 29:6 0wed 17:9 motivational 40:9 non-contested 3:11 nonperformance 17:16 open 40:25 44:8 47:19 48:4,21 54:11 owership 24:4 25:3 0wring 24:5 moves 29:17 normal 13:20 35:19 moving 21:21 36:12 notice 29:10 notice 29:10 operation 17:25 39:3 0peration 17:25 39:3 39:15,22 paid 41:14 multi 39:3 49:19 notifications 19:13, 47:18 54:9 notifications 19:13, 14 operational 17:22 14:23 15:7,12,14 35:8 39:15,22 paid 41:14 mutte 5:20 multi 91:44:14 46:2,14,15 49:7 operations 6:6 8:7 25:11 33:4 43:17 44:6 47:12 parent 52:7 mutte 5:20 number 37:9 38:13 40:22 47:15 11:3 54:4 opinion 5:12 0portunities 23:20 0portunity 32:17 participat 32:17 5:11	molecules 14:14	nervous 18:9	OFO 14:22 15:18	-
money 12:23 25:16,23 38:10,18 Inter total optimized month 4:9 7:17 10:23 nice 23:11 41:13 OFOS 8:15 17:8 45:18 overlook 30:19 months 10:16 37:1 noise 5:21 32:11 OFOS 8:15 17:8 45:18 overlook 30:19 months 10:16 37:1 noise 5:21 32:11 OFOS 8:15 17:8 45:18 overlook 30:19 months 10:16 37:1 noise 5:21 32:11 nomination 39:18 ore-year 31:18 33:24 owe 16:14 28:24 29:6 motivational 40:9 non-contested 3:11 nonperformance 17:16 opend 4:25 44:8 owership 24:4 25:3 moves 29:17 normal 13:20 35:19 opening 26:5 operation 17:25 39:3 owership 24:4 25:3 muffled 9:5 30:9,11, 12 notice 29:10 operation 17:25 39:3 operation 17:25 39:3 paid 41:14 multi 39:3 49:19 notifications 19:13, 14 number 19:20 operational 7:22 paid 41:14 mutte 5:20 number 16:21 30:2 43:6 44:14 46:2,14,15 operations 6:6 8:7 parent 52:7 mutte 32:9 numbers 37:9 38:13 40:22 47:1 51:13 54:4 oportunities 23:20 oportunities 23:20 N notifications 17:19 32:13 40	Monday 54:13	news 10:18 19:4		
month 4:9 7:17 10:23 13:12 28:8 48:13 54:2 nice 23:11 41:13 11:22 nice 0:16 0:10 1:0 30:10 11:0 1:0 oversees 18:18 months 10:16 37:1 noise 52:1 32:11 0klahoma 7:11,24 10:10 owe 16:14 28:24 29:6 owed 17:9 moring 3:2 6:3 7:10 18:10 51:25 nomination 39:18 54:11 one-year 31:18 33:24 0PC 34:4 owe 16:14 28:24 29:6 owed 17:9 motivational 40:9 non-contested 3:11 nonperformance open 40:25 44:8 47:19 48:4,21 54:11 owenrship 24:4 25:3 ownership 24:4 25:3 moves 29:17 normal 13:20 35:19 39:3 operation 17:25 39:3 operational 7:22 operational 7:22 muffled 9:5 30:9,11, 12 notice 29:10 operational 7:22 paid 41:14 multi 39:3 49:19 notifications 19:13, 47:18 54:9 14 operational 7:22 paid 41:14 multipliers 40:14 number 16:21 30:2 43:6 44:14 46:2,14,15 operations 6:6 8:7 part 9:5 11:9 12:13 mutto 32:9 49:7 number 37:9 38:13 40:22 47:1 51:13 54:4 opinion 5:12 opportunities 23:20 participate 32:17 51:1 52:11 participating 5:16 12:16	money 12:23	25:16,23 38:10,18		•
13:12 28:8 48:13 54:2 NIETRICH 31:24 Oklahoma 7:11,24 owe 16:14 28:24 29:6 months 10:16 37:1 noise 5:21 32:11 nomination 39:18 0klahoma 7:11,24 owe 16:14 28:24 29:6 motivational 40:9 non-contested 3:11 nonperformance 17:16 open 40:25 44:8 owentsi 25:21 32:11 motivational 40:9 non-contested 3:11 noperformance 17:16 open 40:25 44:8 owentsi 25:21 32:11 move 3:22 22:4 31:13 nonperformance 17:16 open 40:25 44:8 owentsi 25:21 moves 29:17 normal 13:20 35:19 operation 17:25 39:3 owentsi 25:24 53:1 motifled 9:5 30:9,11, notice 29:10 operational 7:22 14:23 15:7,12,14 35:8 paid 41:14 multi 39:3 49:19 notifications 19:13, 14 operational 7:22 paid 41:14 multi 39:3 49:19 notifications 19:13, 14 operations 6:6 8:7 paid 41:14 multi 39:3 49:19 number 16:21 30:2 operations 6:6 8:7 parent 52:7 part 9:5 11:9 12:13 multi 32:9 49:7 numbers 37:9 38:13 opinion 5:12 opinion 5:12 participate 32:17 N 40:22 47:1 51:13 54:4 oportunity 32:17	month 4:9 7:17 10:23	nice 23:11 41:13		
months 10:16 37:1 noise 5:21 32:11 10:10 Owe Io:14 20:24 23:0 owed 17:9 owed 17:9 owed 35:21 owed 17:9 owed 35:21 owed 17:9 owed 35:221 owed 17:9 owed 35:221 owed 35:33 open 45:15 open 45:15 open 45:15 open 45:15 operation 17:25 39:33 operation 17:25 39:33 operation 17:25 39:33 paid 41:14 pancaked 37:3 pankandle 92:3 33:13 93:13 33:13 93:13 33:13 93:13 33:1	13:12 28:8 48:13 54:2	NIETRICH 31:24	-	
morning 3:2 6:3 7:10 nomination 39:18 one-year 31:18 33:24 owned owned 35:3 9:13	months 10:16 37:1	noise 5:21 32:11		
motivational 40:9 non-contested 3:11 OPC 34:4 52:21 move 3:22 22:4 31:13 32:1 43:10 51:4 nonperformance 17:16 39:3 open 40:25 44:8 47:19 48:4,21 54:11 ownership 24:4 25:3 moves 29:17 normal 13:20 35:19 39:3 opened 4:19 ovming 24:5 Ozarks 52:24 53:1 moving 21:21 36:12 noted 45:6 operation 17:25 39:3 operation 17:25 39:3 operation 17:25 39:3 muffled 9:5 30:9,11, 12 notifications 19:13, 14 notifications 19:13, 14 operational 7:22 14:23 15:7,12,14 35:8 paid 41:14 multi 39:3 49:19 notifications 19:13, 14 operational 7:22 14:23 15:7,12,14 35:8 paid 41:14 multipliers 40:14 number 16:21 30:2 43:6 44:14 46:2,14,15 operations 6:6 8:7 25:11 33:4 43:17 44:6 parent 52:7 mute 3:29 49:7 numbers 37:9 38:13 40:22 47:1 51:13 54:4 oportunities 23:20 oportunities 23:20 participate 32:17 51:1 52:11			one-year 31:18 33:24	
move 3:22 22:4 31:13 32:1 43:10 51:4 nonperformance 17:16 open 40:25 44:8 47:19 48:4,21 54:11 ownership 24:4 25:3 moves 29:17 normal 13:20 35:19 39:3 opened 4:19 ozarks 52:24 53:1 moving 21:21 36:12 noted 45:6 operating 45:1,2 46:8 P muffled 9:5 30:9,11, 12 notice 29:10 operation 17:25 39:3 paid 41:14 multi 39:3 49:19 notifications 19:13, 47:18 54:9 notifications 19:13, 14 operational 7:22 14:23 15:7,12,14 35:8 39:15,22 paid 41:14 multiple 44:17 46:23 47:18 54:9 number 16:21 30:2 43:6 44:14 46:2,14,15 operations 6:6 8:7 25:11 33:4 43:17 44:6 47:12 part 9:5 11:9 12:13 22:1 29:1 mute 3:29 49:7 opinion 5:12 opinion 5:12 participate 32:17 51:1 52:11 N 40:22 47:1 51:13 54:4 opportunities 23:20 opportunity 32:17 participating 5:16 12:16			OPC 34:4	
Inorperformance 47:19 48:4,21 54:11 owning 24:5 32:1 43:10 51:4 17:16 opened 4:19 opening 26:5 moving 21:21 36:12 noted 45:6 operation 17:25 39:3 p muffled 9:5 30:9,11, 12 notice 29:10 operation 17:25 39:3 paid 41:14 multi 39:3 49:19 notifications 19:13, 14 operational 7:22 paid 41:14 multiple 44:17 46:23 47:18 54:9 14 operationally 34:24 33:13 multipliers 40:14 number 16:21 30:2 43:6 44:14 46:2,14,15 operations 6:6 8:7 part 9:5 11:9 12:13 muted 32:9 numbers 37:9 38:13 40:22 47:1 51:13 54:4 oportunities 23:20 oportunities 23:20 oportunity 32:17 participating 5:16 12:16			•	ownership 24:4 25:3
moves 29:17 normal 13:20 35:19 39:3 opened 4:19 Ozarks 52:24 53:1 moving 21:21 36:12 noted 45:6 opening 26:5 paid 41:14 MRT 8:15 notice 29:10 operational 7:22 paid 41:14 muffled 9:5 30:9,11, 12 notifications 19:13, 14 operational 7:22 paid 41:14 multi 39:3 49:19 notifications 19:13, 14 operational 7:22 pancaked 37:3 multiple 44:17 46:23 14 operationally 34:24 33:13 multipliers 40:14 number 16:21 30:2 43:6 44:14 46:2,14,15 49:7 muted 32:9 Numbers 37:9 38:13 opportunities 23:20 opportunities 23:20 opportunity 32:17 participating 5:16 12:16				-
moving 21:21 36:12 39:3 opening 26:5 MRT 8:15 noted 45:6 operating 45:1,2 46:8 P muffled 9:5 30:9,11, 12 notice 29:10 operation 17:25 39:3 paid 41:14 multi 39:3 49:19 notifications 19:13, 14 operational 7:22 paid 41:14 multiple 44:17 46:23 47:18 54:9 November 19:20 36:19 operations 6:6 8:7 25:11 33:4 43:17 44:6 parent 52:7 mute 5:20 number 16:21 30:2 43:6 44:14 46:2,14,15 49:7 operations 5:12 30:10 47:9 operations 6:6 8:7 25:11 33:4 43:17 44:6 participate 32:17 51:1 52:11 Mute 32:9 Mumbers 37:9 38:13 40:22 47:1 51:13 54:4 opportunities 23:20 0pportunity 32:17 participating 5:16 12:16	moves 29:17	normal 13:20 35:19	•	-
MRT 8:15 noted 45:6 operating 45:1,2 46:8 P muffled 9:5 30:9,11, 12 notice 29:10 operation 17:25 39:3 paid 41:14 nulti 39:3 49:19 notifications 19:13, 14 operational 7:22 14:23 15:7,12,14 35:8 39:15,22 paid 41:14 multi 39:3 49:19 notifications 19:13, 14 operationally 34:24 35:10 47:9 pancaked 37:3 multiple 44:17 46:23 47:18 54:9 November 19:20 36:19 operations 6:6 8:7 25:11 33:4 43:17 44:6 47:12 parent 52:7 mute 5:20 number 16:21 30:2 43:6 44:14 46:2,14,15 49:7 operations 5:12 0pinion 5:12 participate 32:17 51:1 52:11 N numbers 37:9 38:13 40:22 47:1 51:13 54:4 opportunities 23:20 0portunity 32:17 participating 5:16 12:16	moving 21:21 36:12		opening 26:5	
muffled 9:5 30:9,11, 12 notice 29:10 operation 17:25 39:3 paid 41:14 12 notices 8:5 operational 7:22 14:23 15:7,12,14 35:8 pancaked 37:3 multi 39:3 49:19 notifications 19:13, 14 14:23 15:7,12,14 35:8 pancaked 37:3 multiple 44:17 46:23 14 0perationally 34:24 33:13 33:13 multipliers 40:14 November 19:20 36:19 operations 6:6 8:7 parent 52:7 mute 5:20 number 16:21 30:2 49:7 0pinion 5:12 0pinion 5:12 0pinion 5:12 0pinion 5:12 0pinion 5:12 5:11 52:11 0pinion 5:12 0pinion 5:12 5:11 52:11 5:16 5:16 5:16 12:16 12:16	-	noted 45:6	operating 45:1,2 46:8	Р
12 notices 8:5 operational 7:22 part 4:114 multi 39:3 49:19 notifications 19:13, 14 39:15,22 pancaked 37:3 multiple 44:17 46:23 14 39:15,22 pancaked 37:3 multiple 44:17 46:23 14 39:15,22 pancaked 37:3 multiple 44:17 46:23 14 39:15,22 pancaked 37:3 multipliers 40:14 November 19:20 36:19 operational 7:22 parent 52:7 mute 5:20 number 16:21 30:2 43:6 44:14 46:2,14,15 operations 6:6 8:7 part 9:5 11:9 12:13 muted 32:9 49:7 opinion 5:12 opinion 5:12 participate 32:17 N 10:22 47:1 51:13 54:4 opportunities 23:20 participating 5:16 opportunity 32:17 12:16		notice 29:10	operation 17:25 39:3	noid 41:14
multi 39:3 49:19 notifications 19:13, 14 39:15,22 Panhandle 9:23 33:13 multiple 44:17 46:23 47:18 54:9 14 operationally 34:24 35:10 47:9 33:13 multipliers 40:14 number 16:21 30:2 43:6 44:14 46:2,14,15 operations 6:6 8:7 25:11 33:4 43:17 44:6 47:12 parent 52:7 muted 32:9 49:7 opinion 5:12 opinion 5:12 N numbers 37:9 38:13 40:22 47:1 51:13 54:4 opportunities 23:20 participate 32:17 opportunity 32:17 12:16		notices 8:5		-
multiple 44:17 46:23 47:18 54:9 November 19:20 36:19 operationally 34:24 35:10 47:9 33:13 multipliers 40:14 number 16:21 30:2 43:6 44:14 46:2,14,15 operations 6:6 8:7 25:11 33:4 43:17 44:6 47:12 part 9:5 11:9 12:13 22:1 29:1 muted 32:9 numbers 37:9 38:13 40:22 47:1 51:13 54:4 opportunities 23:20 opportunity 32:17 participating 5:16 12:16	multi 39:3 49:19	notifications 19:13,		-
multipliers 40:14 36:19 operations 6:6 8:7 parent 52:7 mute 5:20 number 16:21 30:2 43:6 44:14 46:2,14,15 25:11 33:4 43:17 44:6 part 9:5 11:9 12:13 muted 32:9 49:7 opinion 5:12 participate 32:17 N 40:22 47:1 51:13 54:4 opportunities 23:20 participating 5:16 0 0 0 0 1 12:16 12:16				
number 16:21 30:2 43:6 44:14 46:2,14,15 49:7 25:11 33:4 43:17 44:6 47:12 part 9:5 11:9 12:13 22:1 29:1 number 32:9 49:7 opinion 5:12 participate 32:17 51:1 52:11 N 40:22 47:1 51:13 54:4 opportunities 23:20 participating 5:16 12:16				parent 52:7
muted 32:9 43:6 44:14 46:2,14,15 49:7 47:12 participate 32:17 51:1 52:11 N 40:22 47:1 51:13 54:4 opportunities 23:20 opportunity 32:17 participating 5:16 12:16	-			
N numbers 37:9 38:13 opinion 51:1 52:11 N 40:22 47:1 51:13 54:4 opportunities 23:20 participation 51:1 Opportunity 32:17 12:16 12:16 12:16 12:16			47:12	_
N 40:22 47:1 51:13 54:4 opportunities 23:20 participating 5:16 opportunity 32:17 12:16			opinion 5:12	
opportunity 32:17 12:16	N		opportunities 23:20	
	Natelle 31:14,20 51:8		opportunity 32:17 41:17 44:4 52:10 55:5,	

AO-2021-026dex:Vohrticipation..procedures

participation 41:5	permanent 37:4	Poplar 6:23	pressure 17:25 18:8
parties 3:17 25:25	personnel 26:2	portfolio 12:6 13:11,	pressures 23:16
partners 40:19,24	perspective 5:4	22 14:7	• pretty 7:14 11:6 16:8
parts 7:11 8:1 21:21	27:16 55:19	posed 52:2	28:10 34:12 36:20
pass 38:6	PGA 16:24 19:21	position 51:11	40:3 55:9
past 11:16,21 12:6	20:20,24 21:5 22:2,14, 22 23:4 35:14,16,22,	possibly 37:25	prevent 24:16
13:4 27:3,11 44:13	23 36:2,3,8,14,15	posting 25:12	price 9:4,14,16 11:15 12:24 13:10,15,19
53:12	37:10,17 40:10 41:16 44:7 46:24 52:25 53:4	potential 20:12 21:22	14:1,3 16:2,15 20:12
path 23:7	54:18,25	35:3	21:1,18 22:6,20,22 24:6,7,16,18 25:24
paths 5:14	physical 34:5	power 4:15 8:19,20 9:2,3,5,8 51:25	26:7 30:8 34:8 36:17
pay 16:25 17:2 28:18	picture 4:23	powers 6:7 33:7	39:14 40:17 41:14 45:6 50:17,19,21 53:9,
paying 9:14	piece 14:2	practice 12:22,24	14 54:7 55:25
payment 29:3	pipe 9:19 11:7,8	13:7	priced 24:15
payors 28:20	pipeline 8:10 11:10,	practices 53:11,13	prices 9:2,3,7,9,10,
peak 7:9 13:2 14:15, 18,19 15:3 24:22	11,13 12:2,6 23:15 25:1,2 33:14,16,17,18	predominantly 11:4,	11,20 10:11,13,20 12:13,17 13:12 19:3
27:19 28:6 44:10	35:2 39:8 50:20 53:4	7	20:13,14,16 21:3,24
peaks 44:23	pipelines 8:9,17 11:7	prefer 36:16 37:2	24:13 27:4 30:5,12 34:20 35:9 37:15
penalties 14:22 16:22	12:2 15:4 19:25 20:2,3 23:18 25:20 29:18	prefers 36:14	40:14 46:4 50:20
17:1,9 19:24 28:16,18 29:7 31:19 35:1,6	30:6 35:7 39:10	preliminary 47:1	53:15,18,20 55:17
40:15 48:2,3 51:11,15	pipes 11:4	preparation 6:19 31:10	pricing 9:23 10:2,4 45:4 53:10
penalty 16:11,17 17:3	place 15:12	prepared 27:12 41:9	Pridgin 3:2,6 5:18 6:1
28:20 35:3	plan 13:20 14:15,18,	present 4:6 5:24	26:8 30:18 31:5,12,16, 25 32:6,8,15 41:2
people 18:12 21:20 23:12 43:25	24 24:21 29:8 32:3	32:3,17	42:1,6,11,14 43:8,15
percent 7:18,19	planning 14:19 34:3 43:25 47:4	presentation 3:3,7	48:5 50:4,8,12,16 51:3,8,18,23 55:7,13
13:11,25 14:6 15:2	plans 13:1	6:10,25 26:12,15,16, 18 30:1,16,24 32:1	primarily 33:9,13
18:2 22:18,19,24 23:1 27:20 45:3	plant 18:14	33:2 42:5 43:17 44:2,4	53:6
percentage 43:5	Platts 24:12 30:4,5	50:3,7 51:25 presentations 3:19	primary 9:18 28:20
perform 16:19 17:14	point 3:13 9:17 14:4	presented 34:19 37:9	principal 25:12 29:6
46:2	17:11 24:14 28:21 29:1 31:3 51:25 55:2	presenting 32:5,19	prior 3:16
performance 26:4 42:24	points 29:23 30:6	43:11,18 51:5,21	problem 39:2 40:13
performed 15:21	33:15	preside 3:7	41:13 49:2,17
25:21 39:8	polar 9:10,13 12:9	president 6:6 19:7	problems 18:8
period 18:5 19:2 22:1	15:5 27:3,13	Presidents' 4:10	procedure 3:10,13, 19,25
35:15 36:25 53:16 54:11,15,22	policy 12:14	55:22	procedures 45:17
01.11,10,22	Pool 8:19,20	press 38:9	

AO-2021-0264, Ivolex:Iproceed..responsible

proceed 5:22	purposes 52:24	real 18:8	reliability 7:1 15:10
proceeding 52:11	pushing 36:11	realize 29:12	24:21
proceedings 29:8	put 5:19 22:2 25:3	reason 39:24	reliable 13:8
process 25:11,22	39:21 55:11	reasonable 36:20	rely 15:1
30:7,14 34:3 48:3 54:16	puts 18:3	reasons 23:22	remarks 4:5
procure 34:4	putting 21:22 35:20	recall 3:16 50:19 52:20	remember 23:13 44:17,20
procurement 43:24 53:10,13	Q	receive 39:19	remind 5:19 32:8
produce 24:6,7	quality 33:7	received 19:25	
producers 7:23 8:4,	quantity 49:10	recent 44:13	repeat 49:1
16 23:24 24:5	question 14:22 27:18	recognition 36:9	repercussions 5:6
production 7:12 10:2	29:10,24 31:15 33:4 34:14 35:12 42:22	recognize 54:19	replace 28:8
24:2,3 25:3 27:4	46:25 48:25 50:17	record 3:3 45:2	report 3:17 4:25 29:22 41:10
proof 25:13	51:7	recover 21:15 46:22	reported 24:13 50:2
proposals 7:3	questioning 27:1	recoveries 36:16	reporter 32:10,11
protest 51:14	questions 3:15,21,25	recovers 23:5	55:6
proud 26:4	6:10,12 14:21 26:9,14, 16 29:23 30:20,21,22,	recovery 5:9 21:25	reporting 24:11
provide 17:12,22 34:1 38:25 41:10 52:11 54:19	23 31:6,7,8,13 33:2 34:10 38:23 41:1,3 42:3,4,7,8,9 43:20	33:24 34:21 35:15,20 36:7,10,25 37:7,14,24 49:19 54:17,19,22	request 37:5 49:20 50:24 51:15
provided 9:22 53:11	44:1,8 48:4,6,8 50:3,5,	reduce 18:19 20:24	requested 49:16
provision 14:10 17:3,	6,10 52:1,8	reducing 18:21	requests 38:23 49:1
21	Quick 6:20	redundant 37:3	require 54:24
provisions 14:13	quotes 51:14	referred 13:16	required 3:12 4:12 16:8
prudent 13:23	R	referring 27:5	reserve 45:23
Public 13:1		regions 33:19	residential 35:16,2
publishes 30:5	range 24:8 45:5 53:12,17	regular 35:14	53:6
pulled 11:1	rate 19:17,19 21:1,9,	regulated 14:18	resource 13:1 24:2
purchase 16:3 52:12	12 33:25 35:22,23,24	regulator 39:2	resources 14:15
purchased 19:21	37:12,18,21	regulators 21:7 25:4	respect 17:8
33:21 34:16 39:7 46:19 53:10	rates 23:17 43:21 52:6	regulatory 3:6 20:10	respond 33:4
purchases 13:18	reached 19:4 38:13	32:25 40:22 43:21	response 5:5 6:19
27:18,21 34:6 45:19, 22,23	47:6	52:6 reinforces 23:19	responses 34:10
purchasing 45:16	reaching 54:8	related 52:13	38:23 52:1
purpose 5:14	ready 6:2 31:15,16 32:6,15 43:15 50:25 51:23	releases 19:4 38:9	responsible 20:1 48:1

AO-2021-0264, Vol. IIndex: result..spent

result 35:21 40:7	Scott 14:23 26:3,12	show 22:6 24:18	sliding 44:21
54:23	28:4,5 31:20	25:13 48:19 49:4	slightly 43:3
resulting 46:4	screen 38:22	showed 21:14	slow 33:6
reviewed 39:17	sections 24:23	shows 9:4 11:1 13:2,	small 21:2 33:19
reviewing 40:4	sector 4:11,15,16	4	35:25 53:7
Rex 10:1	26:21	shut 8:3,6 9:15	smaller 28:24 35:25
Rider 33:21	secure 13:8 54:5	side 6:22 7:7,19,23 8:11,15 9:19,23 10:1	smarter 23:24
rights 25:15	selling 27:9	11:8,10 15:13,15,17	snap 45:18 49:9
risk 18:3 35:8 39:12,	send 45:2	22:7,11,14 23:15,19, 21 35:16 45:9,13	social 19:22 38:12
20	senior 19:6 32:23,24 52:5	46:20,21 47:2,12,22,	solution 23:8
risking 40:10		23 50:25 51:16	solutions 6:14 24:3
robust 28:22 34:3	sense 31:17	signals 24:18	Sommerer 42:13,15,
Rockies 33:16	serve 11:4 15:11 16:4 25:13 42:24 46:8	significant 12:23	23 43:7 50:14,17 51:2
Rogersville 52:24 53:2	served 46:6 53:3,4	35:13 38:5 54:3 55:16 Silvey 4:4 26:11	sort 15:6 17:8,20 55:19,20,25
roll 30:19	serves 6:21 52:21	27:15 28:11,15 29:2,9, 20 30:15 41:4,24 48:7,	source 10:22 11:22
Rolla 33:10	service 11:4 12:10 13:1 17:22 33:11,14	12,17 49:1,11,17,23	12:1 14:24
rolling 8:25	35:23 38:16,18,25	50:1	sourced 7:12
Ron 3:6	39:2 46:12 54:5 55:23	similar 32:20 34:1 37:19 52:15 55:21,23	sources 12:21 35:19
RPGA 35:18 37:14,20	serving 8:10 9:19 11:8,10 15:20	simply 3:13 38:14	south 33:10
RTOS 4:12 26:20	set 13:12,15 17:20	single 39:2	southeast 33:19 38:16
rules 49:21	50:19	sir 6:2 32:6,14,15	Southern 8:10 9:18,
running 18:1	sets 30:5	41:25 49:25 50:23	22 18:6 22:20 24:14
runs 23:16 24:12	settled 24:13	situated 39:12	31:19 33:20 35:3 45:7 51:11 53:5
Rupp 4:2 30:21,23	seven-year 26:19	situation 5:2 15:18	Southwest 8:19,20
31:5,9 42:3,4 50:4,6	severe 36:1	16:1 21:9 30:2 36:10 39:25 49:8	spanned 7:21
rural 53:7	shale 11:20,21	six-year 34:5	speak 5:20 32:9 55:8,
S	shared 41:22	size 52:17	15
	shifts 40:15	sky 9:7	speaker 5:19
S&p 30:4	ship 33:17 35:7	slide 6:21 7:5 9:2 10:5	Speaking 24:3
safety 38:10,11	shipper 20:2	14:5 18:4 23:10 27:17,	speaks 31:3
sandbag 29:23	shock 21:1,12	18 32:7 33:5 34:9,14, 23 35:12 36:7 37:6	specific 49:9
saved 12:22	shore 29:17	38:7,21 39:16 44:5	spend 45:8
school 17:23 18:17	short 10:19 15:6	45:19 46:19 48:10,11	spent 10:15 18:9
schools 14:10 18:18	16:16	slides 20:11 26:17 27:16 37:9 43:18	22:7,8,10 25:17 34:15 45:9
40:2	shortfalls 45:22		т О .О

AO-2021-0264, Vol. I Index: spike..time

spike 53:15	14:11 15:13,15,17	54:7,14,21 55:16	40:13	
spikes 11:15 22:6	22:7,11,14,21 23:15,	Summit's 52:15	tariff 14:13 16:11 37:4	
24:16 25:24 55:25	19,21 40:19	53:13,25 55:18	40:4 41:8,13,19 49:21	
Spire 3:20,24 4:3	states 25:20	Supervisor 43:23	54:18,24	
5:22,24 6:4,20,21 11:4	stay 47:23,24	supplement 45:20	tariffs 16:13 23:7 25:6	
19:19 21:8 25:18 26:2 31:17,25 32:18 33:24	stays 37:14	supplied 8:9 25:9	40:8 54:25	
34:2 39:25 44:9,11	steel 11:11	28:1	Tatiana 43:22	
45:6 46:24 49:19 50:18	step 17:22	supplier 41:12,13	team 23:16 33:1 47:6 48:22	
Spire's 6:19 30:24	stepped 18:24	suppliers 23:24 28:6	technical 6:18 13:7	
36:18	steps 30:13	39:18 40:1 41:20 43:4	telling 38:19	
spot 24:20 48:18 49:3	storage 12:16 13:5,	supplies 15:5 39:7,17	-	
SPP 4:12 9:1,3	14 28:9 34:16 39:8,13 45:20,24	supply 6:6,7 7:23 9:15,25 11:14,22,24	temperatures 7:14 8:20 13:6	
spread 22:16,19,25	story 38:19,24	12:1,17 13:5 14:9	ten 24:24 27:3	
Springfield 18:7	strain 9:21	15:15 17:24 18:2,3 20:2,4 22:12,13 23:14	termed 7:20	
SSC 9:18	strained 8:22	27:22 28:2,6,9 29:15,	terms 30:12	
St 6:23,24 7:16,19	strategic 24:25	17 32:24 34:25 35:11 36:16 39:19,25 44:6	territories 38:16	
38:17	strategy 36:24 39:7	45:7,17,20 46:12,14	territory 11:4 33:11	
stable 38:4 53:14		48:10 53:8 54:5	38:18	
staff 3:15,16,21 6:18	stress 8:4	support 6:18 12:16,	Texas 7:11,24 10:10	
13:7 20:15 25:25 31:13,23 34:4 42:12,	strip 10:24	21 15:23 35:5	33:17	
16 43:9 50:13 51:7,19	stronger 45:24	supported 39:8	texts 19:12	
53:11 54:11	subject 35:3	supposed 28:1	thing 13:23 14:4	
Staff's 4:24	submitted 30:7	swing 55:17	17:10 19:18 23:13 24:22 38:2	
stakeholders 4:22	subset 35:25	system 12:6 15:10,23	things 20:22 49:24	
standing 12:13,22	substantial 16:9 22:9	16:4 17:7,25 18:1,3, 11,13,16,20 20:5,6	thinking 18:15,20	
standpoint 30:25	27:25	23:17 25:1,9 33:6 40:9	41:8	
35:11 38:2	substantially 10:3 13:14 18:13 27:5	41:15 44:18 47:9,12	third-party 25:7	
Star 8:10 9:18,22 18:7 22:20 24:14 31:19		T	thought 9:11 23:3	
33:20 35:3 45:7 53:5	successful 35:8	·	26:18 30:8	
Star's 51:11	sudden 21:11	takeaway 25:5	thoughts 26:2	
start 29:17	sufficient 17:5	takes 38:22	three-year 31:18 36:3	
started 8:7 18:2 44:19	suggestions 34:2	taking 33:14 40:7	37:24	
47:4	suggests 54:16	talk 6:15 20:11 24:24	tied 24:5	
starting 8:2	summary 40:16	25:2 44:7 46:17	Tim 32:4	
state 6:22,23 7:7,19	summertime 13:16	talked 7:2 11:20 23:3,	time 3:9,15,21 8:7	
8:11,15,16,25 9:19,24	Summit 3:23 51:4,20	22 24:19 44:9,12 46:4	19:20 22:1,10 25:17 27:13 28:21 29:3 34:6	
10:1 11:6,8,9,10 12:25	52:6,7,10,20 53:8,19	talking 14:18 19:10	37:22 42:5 49:10 50:6	

AO-2021-0264, Vodex: timeline..wondering

55:7	true 28:2	55:17	weather 3:4 4:8,24
timeline 49:16	Trunkline 33:20	utility 16:24 17:2	5:6 7:20 10:11,20
times 8:19 11:16	turn 8:23 44:2 55:2	20:19 28:10 40:18	12:12 13:3 19:3 27:1 29:16 39:23 42:19
16:15,16 18:25 55:23		52:21	44:10,12 48:14,16
tips 38:10	twenty 24:24		52:13 53:12,22 55:18
today 3:18 5:15 52:4,	type 16:22 26:19,22 29:18	V	weathered 25:23
16 54:16	types 41:7	valuable 39:14	weatherization
today's 3:3,13,18,19,	typical 45:14 53:17	vantage 31:3	23:25
25	typically 28:8 29:3	variance 37:5	weatherizing 24:1
Tom 32:24		vast 28:22	Webex 3:9
tool 20:21	U	ventures 24:4	week 18:15 21:16 44:22 48:14,15 52:2
tools 39:14,15		versus 29:12 45:14	week's 22:10
top 13:18	ultimately 38:20	48:19 49:5	weekend 44:23 54:13
total 15:3 18:13	understand 12:16	viable 20:6	55:22
22:17,24 34:17 35:16, 22 37:10,17,21	understanding 6:19	Vice 6:5	weeks 10:16 29:16,19
touch 6:20 20:10	understood 4:18	violation 35:1	weighted 13:17
41:11	unfortunate 25:23 40:21	volatile 13:13	Weitzel 5:23,25 6:3
towns 53:8	unlike 39:25	volatility 12:15	17:10 26:25 27:22
transformed 11:22	unprecedented 4:8,	volumes 28:8 31:3	29:14 31:20 36:6
12:2	11 8:19	voluntarily 46:16	wells 7:25 8:3 10:2 23:23 24:2,3,5
transmission 8:12 33:18 46:7 47:21,22	unrealistic 40:6	vortex 9:10,13 12:9	Wentzville 33:10
transparency 24:19	upcoming 10:24	15:5	west 6:22 8:11,15
transport 11:13	update 33:6 38:22	vortexes 27:3,14	9:19 11:8 15:13,17
33:13 39:17 40:2	updated 37:18	VP 43:17	22:7,21 23:15,18 27:19,20 39:25
46:14	upstream 20:7 25:1	W	western 7:7
transportation 14:25 19:13 25:7,14 34:4,24	usage 19:16		wide 53:12
42:25 43:22 47:7	user 14:25 15:25 16:5	WACOG 13:17	widespread 38:15
transported 7:13	25:6	waive 51:11	39:4
transporters 39:20	users 14:6,7 15:21	waived 31:19	wind 8:24
41:20	19:10 27:25 28:7 42:18,25	waiver 21:8,13 35:4,5	winter 10:23,24 52:13
treated 20:21	users' 15:9	51:15	winterized 7:25
treating 26:21	Utica 11:20	waivers 49:21 54:24	withdrawal 45:21
tremendous 35:10	utilities 3:5,14 4:6,17	wanted 9:17 11:19 17:11 22:2 26:19	withdrawals 45:25
trending 10:22	5:2,4 9:22 10:10,14		wonderful 55:13
triple 40:14	12:8,10,20,25 24:20 26:13 32:21 38:20	Warsaw 52:23 53:1	wondering 41:6
trucks 18:10	43:10,19 49:22 52:6	ways 20:16	_

word 19:7		
work 6:18 14:9 20:15 22:16 25:17 37:8 40:18 55:12		
worked 30:10 40:3 47:25		
working 25:24 44:16, 19		
workshop 6:13,25 32:18		
worried 17:24		
worthiness 28:20		
written 26:13 52:1		
wrong 36:11		
Y		
year 9:24 11:18 20:25 22:7,8 34:3 35:21 36:8,24 37:8,12,13,19 45:11 49:19 53:25 years 11:20,23 13:4 20:24,25 21:4,9,10 22:16,23,25 23:12 24:24 26:24 27:1,3,11 31:2 37:25 40:21 46:23 yell 55:10 Zone 10:2		