

1 TRANSCRIPT OF THE
2 ERCOT BOARD OF DIRECTORS
3 RELIABILITY AND MARKETS COMMITTEE MEETING¹
4 APRIL 22, 2024
5 AGENDA ITEM 4.2, NOGRR245, INVERTER-BASED RESOURCE (IBR) RIDE-THROUGH
6 REQUIREMENTS
7

8 [00:35:16]

9 **CHAIR FLEXON:** RIGHT. WE'LL COME BACK TO THAT DAN, THANKS
10 FOR THAT, UH, GOOD UTILIZATION OF YOUR 20 MINUTES.

11 UM, SO NOW WE'LL GO AND INVITE THE JOINT COMMENTERS UP FOR 20
12 MINUTES TO GO THROUGH, UH, THEIR VIEWPOINTS.

13 AND I WANNA DO THE ORDER IF ERIC AND MARK FROM NEXTERA, I GUESS
14 CAN GO FIRST, FOLLOWED BY SARAH AND OMAR.

15 [00:35:56]

16 **ERIC GOFF:** UH, GOOD AFTERNOON EVERYONE. MY NAME IS ERIC
17 GOFF. UH, I AM A CONSULTANT, UH, FOR A VARIETY OF CLIENTS TODAY. I'M HERE
18 SOLELY FOR NEXTERA, UH, REPRESENTING THE POSITIONS OF THE JOINT
19 COMMENTERS.

20 FIRST OF ALL, I WANNA THANK YOU FOR YOUR ATTENTION AND THE
21 OPPORTUNITY TO SPEAK BEFORE, UH, THIS BODY.

22 UH, WE'LL GET INTO MANY OF THE QUESTIONS THAT WERE RAISED IN THE
23 PRIOR PRESENTATION, AND I'M LOOKING FORWARD TO ANY QUESTIONS THAT
24 YOU HAVE FOR ME OR FOR THE JOINT COMMENTERS.

25 UM, SO THIS IS A QUICK SUMMARY OF WHAT WE'RE ASKING.

¹ TRANSCRIBED FROM THE SWAGIT AUDIO/VIDEO SYSTEM FROM GRANICUS, INC.

1 WE'RE ASKING THAT YOU PASS THE TAC RECOMMENDATION TODAY, UM,
2 BECAUSE IT SUPPORTS RELIABILITY AND IMPOSES NEW REQUIREMENTS, UH, AS
3 WE'LL GET INTO, UH. REMANDING WILL DELAY IMPLEMENTATION OF THIS THAT
4 HAS REAL WORLD CONSEQUENCES.

5 UM, THERE ARE ACTUAL INVESTMENTS, UH, BEING CONSIDERED BASED ON
6 THIS, UH, PRESENTATION, UH, TODAY.

7 UM, WE BELIEVE THAT THE TAC VERSION DOES ADDRESS MANY OF THE
8 ISSUES ERCOT HAS IDENTIFIED, AND THE LATEST VERSION THAT TAC FILED, UM,
9 IS A STEP BACK, EXCUSE ME, THAT, UH, ERCOT FILED IS A STEP BACKWARDS.

10 UM, SO BEFORE I GET INTO THAT, UM, HERE ARE THE COMPANIES THAT ARE
11 IN THE JOINT COMMENTERS.

12 THERE ARE A NUMBER OF OTHER COMPANIES HERE AS WELL, UH,
13 INCLUDING BROOKSFIELD.

14 BUT IF YOU'RE HERE ON BEHALF OF THE JOINT COMMENTERS OR A TAC
15 MEMBER THAT YOU'D LIKE TO STAND UP AND, AND SHOW THAT YOU'RE
16 SUPPORTIVE OF THE TAC PRESENTATION, FEEL FREE TO RAISE YOUR HAND OR,
17 OR STAND UP. I'D APPRECIATE IT.

18 GREAT.

19 UM, SO, UH, THESE COMPANIES REPRESENT ABOUT THIS QUANTITY OF THE
20 TOTAL IBRS ON THE SYSTEM.

21 UM, WE AGREE THAT THIS IS A CRITICAL ISSUE, UM, AND THAT'S WHY WE
22 HAVE BEEN WORKING, UH, WITH ERCOT AND NERC AND OUR OEMS ON THIS
23 TOPIC.

24 UH, WE REALLY WOULD PREFER THAT THIS WASN'T SEEN AS AN ERCOT
25 VERSUS INDUSTRY DEBATE BECAUSE MANY OF, UH, THE ISSUES AND PROGRESS

1 THAT HAS BEEN MADE HERE IS BEING MADE BY, UH, THE OWNERS AND
2 OPERATORS. OUR, OUR OEMS WERE PARTICIPATING IN MANY OF THESE ISSUE
3 AREAS, AND WE'RE NOT EXPECTING THIS CONVERSATION TO END TODAY OR AT
4 THE NEXT BOARD MEETING.

5 THERE'S MORE WORK TO DO AND WE'RE LOOKING FORWARD TO DOING IT.

6 UM, IF YOU DO PASS THE TAC VERSION, UM, YOU WILL AVOID BURDENSOME
7 RETROACTIVE REQUIREMENTS.

8 UM, THOSE RETROACTIVE REQUIREMENTS, UM, HAVE A REAL IMPACT ON
9 INVESTORS SENTIMENT AND CONFIDENCE.

10 IF YOU TELL SOMEONE IN A WHOLESALE COMPETITIVE MARKET THAT, UM,
11 NEVERMIND, WE NEED YOU TO COME BACK AND DO MORE, UM, IT MAKES
12 INVESTORS QUESTION THAT IN THE FUTURE, UM, IT ALSO, UM, POTENTIALLY, UH,
13 SENDS A NEGATIVE, UM, SIGNAL IN GENERAL ABOUT, YOU KNOW, ARE WE OPEN
14 FOR BUSINESS HERE? UH, WHEN THE EPA HAS TRIED TO DO SIMILAR THINGS,
15 THIS STATE HAS SUED THE EPA TO, TO TRY TO BLOCK THOSE, UH, DOZENS OF
16 TIMES.

17 UM, WE ALSO, UH, WANT TO AVOID HAVING TO REQUEST, UH, A NEW
18 EFFECTIVE DATE FOR RESOURCES.

19 IF YOU DELAY THIS TO A FUTURE BOARD MEETING, WE SET THE JUNE
20 TARGET TO BE WHEN THE PUC MIGHT APPROVE IT.

21 UM, IF THIS IS DELAYED FOR ANOTHER COUPLE MONTHS OR THREE
22 MONTHS OR FOUR MONTHS, UM, WE MIGHT HAVE TO ASK FOR A DATE AFTER
23 JUNE, 2024 IN ORDER TO AVOID THOSE RETROACTIVE TREATMENTS.

24 FINALIZING RULES WILL ALLOW OEMS TO, UH, KNOW WHAT THE RULES
25 ARE.

1 UM, THEY HAVE OPPORTUNITY TO SELL NEW PRODUCTS TO US, UH, ONCE
2 THESE RULES ARE PASSED, AND THE SOONER THOSE RULES ARE WRITTEN, THE
3 SOONER THEY CAN KNOW WHAT THEIR, THEIR SCOPE AND MARKET
4 OPPORTUNITY IS.

5 AND FINALLY, UM, WE ENCOURAGE YOU TO PROTECT THE PRIVATE
6 PROPERTY RIGHTS THAT WE'RE TALKING ABOUT HERE, UH, AND DUE PROCESS
7 RIGHTS.

8 I'LL GET INTO HOW IMPORTANT THOSE ARE SOON.

9 AND O OF COURSE, UM, THE STAKEHOLDER PROCESS HAS SPENT
10 CONSIDERABLE TIME ON THIS AND IS MAKING A RECOMMENDATION. WE HOPE
11 YOU VALUE THAT.

12 SO THE TAC APPROVED PROPOSAL AGGRESSIVELY SUPPORTS RELIABILITY.

13 UM, IT'S IMPOSING NEW REQUIREMENTS ON, ON FACILITIES THAT WERE
14 PREVIOUSLY GRANDFATHERED.

15 IT REQUIRES, UH, ALL SOFTWARE AND COMMERCIALY REASONABLE
16 HARDWARE TO BE INSTALLED.

17 UM, IT IMPOSES THESE NEW REQUIREMENTS, UM, THAT ARE ALIGNED WITH
18 I TRIPLE E 2800 EVEN WHILE TESTING AND VERIFICATION OF HOW TO DO THAT
19 HAS NOT YET BEEN COMPLETED.

20 IT'S IN ADVANCE OF, OF KNOWING HOW TO DO THAT IN SOME CASES.

21 UM, IT ALSO CREATES A CONTINUOUS PROCESS TO COMMUNICATE WHAT
22 YOU CAN DO WITH ERCOT, UH, IDENTIFY, UH, WHETHER OR NOT SOMETHING IS
23 COMMERCIALY REASONABLE.

1 IF IT'S NOT, CHECK IT AGAIN NEXT YEAR, CHECK IT AGAIN THE FOLLOWING
2 YEAR, UM, AND SO ON AND IMPLEMENT ANYTHING THAT IS COMMERCIALY
3 REASONABLE TO DO.

4 AND IMPORTANTLY, THERE'S A CLEARLY DEFINED PROCESS FOR
5 REQUESTING EXEMPTIONS RATHER THAN A STANDARD, UH, THAT'S BASED ON
6 ERCOT DISCRETION.

7 SO THIS IS A KEY POINT.

8 IF ERCOT, UM, THEIR REVIEW AUTHORITY AS THEIR PERSPECTIVE ON
9 RELIABILITY OR, UM, EVIDENCE THAT'S ACCEPTABLE TO THEM, IF THAT WOULD
10 BE APPEALED TO THE UTILITY COMMISSION, THE STANDARD FOR REVIEW
11 WOULD BE WHETHER OR NOT THE EVIDENCE WAS ACCEPTABLE TO ERCOT AND
12 NOT WHETHER OR NOT THE EXEMPTION WAS APPROPRIATE.

13 SO WE'RE LOOKING FOR AN EVIDENCE-BASED STANDARD OF REVIEW SO
14 THAT WAY THERE'S CLEAR DUE PROCESS AND, AND LESS UNCERTAINTY ABOUT
15 WHETHER AN EXEMPTION WOULD BE GRANTED AND THE REVIEW THAT THE PUC
16 WOULD GIVE TO THAT AND, AND WHAT STANDARD OF EVIDENCE THEY WOULD
17 HAVE TO APPLY.

18 UM, THIS IS A SUMMARY OF, UH, THE ISSUES, UH, FROM ODESSA ONE, ESSA
19 TWO, ODESSA TWO, AND THE PANHANDLE, UH, WIND EVENT AND, UM, HOW
20 THOSE ISSUES, UM, HAVE BEEN OR CAN BE RESOLVED.

21 SO IF YOU NOTICE, THE VAST MAJORITY OF THESE ARE, UH, THINGS THAT
22 ARE SOFTWARE FIXES.

23 UM, THERE ARE SOME, UM, UNKNOWN HARDWARE OR SA SOFTWARE
24 ISSUES.

1 UM, AND THEN CONSEQUENTIAL TEMPING IS NOT A RIDE THROUGH ISSUE,
2 IT'S A SEPARATE ISSUE.

3 SO MOST OF THE ISSUES THAT HAVE BEEN IDENTIFIED BY ERCOT, THESE
4 MAJOR EVENTS, A LOT OF IT CAN BE FIXED THROUGH SOFTWARE.

5 SO MOVING FORWARD WITH A SOFTWARE STANDARD IS A BIG DEAL.

6 UH, THIS IS JUST A DEEPER DIVE.

7 I'M HAPPY TO ANSWER QUESTIONS ON THIS, BUT ESSENTIALLY THIS SHOWS
8 SPECIFICALLY BY THE OEM, WHAT HAS IT BEEN IDENTIFIED FROM THE ODESSA
9 TWO EVENT.

10 IN SUMMARY OF THIS, AND WE CAN COME BACK TO IT IF YOU HAVE ANY
11 QUESTIONS.

12 A LOT OF THIS HAS RELATIVELY STRAIGHTFORWARD FIXES THAT FALL
13 WITHIN THE FRAMEWORK THAT TAC HAS PROPOSED.

14 SO THIS IS, UM, A SUMMARY FROM ERCOT'S OWN DATA AND A
15 PRESENTATION OF THE IBR WORKING GROUP.

16 AGAIN, I CAN ANSWER QUESTIONS HERE, UH, IF THERE, IF YOU HAVE ANY,
17 BUT THIS IS THE PROCESS FOR EXEMPTIONS.

18 THERE'S A LOT OF, UM, THINGS ON HERE, BUT JUST TO SUMMARIZE IT, UM,
19 GREEN IS WHERE THERE'S, UM, EITHER AN AGREEMENT ABOUT WHAT TO DO OR,
20 UM, A REQUIREMENT TO INSTALL SOFTWARE COMMERCIAL REASONABLE
21 HARDWARE.

22 THIS, THIS SHOWS THE CLEAR DUE PROCESS PROCEDURES FOR APPEALING
23 SOME OF THE COMMISSION, WHICH AGAIN, I THINK IS SO CRITICAL TO MAKE
24 SURE THAT THERE'S AN OPPORTUNITY FOR DISCUSSION, UM, AND A CLEAR
25 STANDARD OF EVIDENCE.

1 AND THEN IT'S BASED ON WHETHER OR NOT ERCOT STAFF DENIES AN
2 EXEMPTION EXTENSION.

3 SO ERCOT HAS THE ULTIMATE AUTHORITY TO GRANT AN EXEMPTION OR
4 EXTENSION BASED ON THE STANDARD OF EVIDENCE, UM, WHICH IS SUBJECT TO
5 COMMISSION REVIEW.

6 THIS IS THE, UM, SLIDE THAT GOES INTO THE POINT THAT MR. WOODFIN
7 MADE ABOUT REQUESTING NEW EXEMPTIONS.

8 SO AFTER PERFORMANCE FAILURE, WE CREATED A PROCESS OF WHAT TO
9 DO IN THE EVENT OF PERFORMANCE FAILURE AND FOR NEW RESOURCES, THOSE
10 ON THE BOTTOM PART, THEY HAVE TO COMPLY, THEY HAVE TO CREATE A
11 MITIGATION PLAN AND IMPLEMENT IT.

12 FOR EXISTING RESOURCES. WE THINK COMMERCIAL REASONABILITY IS
13 AN IMPORTANT PRINCIPLE THAT SHOULD APPLY THROUGHOUT ALL OF THE
14 PROCEDURES IN PLACE HERE.

15 SO YOU DO A MITIGATION PLAN AND ANALYSIS, DETERMINE WHETHER OR
16 NOT SOMETHING IS COMMERCIALY REASONABLE TO IMPLEMENT, AND IF IT IS,
17 YOU HAVE TO DO IT.

18 IF IT'S NOT, YOU HAVE TO REPORT WHAT YOU CAN DO TO ERCOT AND
19 THAT'S YOUR NEW STANDARD.

20 SO THE REASON THAT'S A NEW STANDARD IS BECAUSE IT'S KNOWN WHAT
21 YOU CAN DO AND YOU HAVE TO ANALYZE EVERY YEAR ABOUT WHETHER OR
22 NOT YOU CAN, YOU CAN INCREASE THAT PERFORMANCE.

23 IF YOU HAVE A PROCESS WHERE YOU KNOW SOMEONE CAN'T DO
24 SOMETHING AND IT'S NOT COMMERCIALY REASONABLE TO FIX IT, UM, THE
25 QUESTION SHOULD BE, WHAT, WHAT WOULD YOU PREFER THE OUTCOME TO BE?

1 UM, SO ALSO IN MANY CASES, LIKE I SAID BEFORE, MANY OF THESE ISSUES CAN
2 BE ADDRESSED THROUGH SOFTWARE CHANGES.

3 UM, SO IN MANY CASES, THOSE SOFTWARE CHANGES WILL ADDRESS THE
4 ISSUE.

5 SO ERCOT, UH, HAD SEVEN CONCERNS THAT THEY WENT INTO, UH, IN THE
6 LAST PRESENTATION.

7 UM, ON THE TIMING OF IMPLEMENTATION, THEY'VE MENTIONED HOW 20 TO
8 30 GIGAWATTS, UM, ARE UNDER THE, THE, UM, LEGACY RATHER, RATHER THAN
9 PREFERRED.

10 THE VAST MAJORITY OF THOSE ARE SOLAR AND, UH, STORAGE DEVICES
11 THAT CAN MEET ALL THE REQUIREMENTS THROUGH SOFTWARE CHANGES.

12 UM, AGAIN, WE THINK COMMERCIAL REASONABILITY SHOULD APPLY
13 THROUGHOUT THIS AS A CORE PRINCIPLE.

14 UM, SO THAT APPLIES FOR A FEW DIFFERENT PLACES HERE.

15 WHETHER THEY CAN CONTINUE OPERATING AFTER A FAILURE IS ANOTHER
16 KEY POINT.

17 ERCOT WOULD LIKE TO, UM, DISCONNECT A FACILITY, WELL, I DUNNO IF
18 THEY WOULD LIKE TO, BUT THEY WANT TO MAKE SURE THAT THE AUTHORITY IS
19 CLEAR THAT THEY CAN DISCONNECT THE FACILITY UNDER CERTAIN
20 CONDITIONS.

21 THIS NOGRR IS NOT CHANGING ERCOT'S AUTHORITY.

22 SO TO THE EXTENT THEY HAVE THAT AUTHORITY, THIS IS NOT CHANGING
23 IT.

24 UM, WE REQUESTED THAT THE COMMISSION CONSIDER CREATING PROCESS
25 AROUND HOW TO DO THAT.

1 UM, BUT THAT WOULD BE A SEPARATE PROCEEDING.

2 UM, I DISCUSSED THE MITIGATION AFTER FAILURE, UM, AND THE, WHAT
3 ERCOT DESCRIBED AS ALLOWED DEVIATIONS TO SAY THAT YOU HAVE TO
4 DOCUMENT WHAT YOU CAN DO AND DO IT IF IT'S COMMERCIALY REASONABLE.
5 AND ON THE DATES FOR AGREED IMPROVEMENTS, THE TAC PROPOSAL HAS
6 CLEAR REQUIREMENTS.

7 OKAY, THIS, THIS NEXT TWO SLIDES...

8 **CHAIR FLEXON:** AND HEY ERIC, YOU'VE GOT FOR THIS WHOLE
9 SECTION, YOU'VE GOT ABOUT NINE MINUTES REMAINING SO...

10 **MR. GOFF:** YES...

11 **CHAIR FLEXON:** ...I DON'T KNOW HOW YOU'RE SPLITTING IT UP.

12 **MR. GOFF:** ...I, I'M NEARLY DONE. THESE NEXT TWO SLIDES, UH, I
13 WON'T GET INTO UNLESS YOU HAVE QUESTIONS.

14 UM, BUT THIS, THIS IS AN EXAMPLE OF HOW ERCOT, UM, OVER TIME HAS
15 CHANGED THE PERSPECTIVE OF THIS NOGRR AND SAID WHAT ISN'T
16 ACCEPTABLE. AND I'M NOT TRYING TO POINT ANY FINGERS HERE, BUT, UH, JUST
17 POINT OUT THAT THEY HAVE ACCEPTED THINGS THROUGHOUT THIS PROCESS
18 THAT THEY SAID EARLIER ARE NOT ACCEPTABLE.

19 THAT'S GREAT THAT THEY'RE MOVING.

20 UM, AND TO THE EXTENT THAT YOU, UH, FEEL LIKE, UM, THEY'RE SAYING
21 THAT TODAY, I WOULD POINT OUT THEY SAID IN THE PAST, OVER PRIOR LINES OF
22 THE SAND, UM, AND THE STAKEHOLDERS HAVE HAD PLENTY OF OPPORTUNITY
23 TO HEAR FROM ERCOT ON THIS.

24 UM, WE'RE WELL AWARE OF THEIR PERSPECTIVE.

1 UM, AND, AND SO WITH THAT, I'LL TURN IT OVER TO THE NEXT PERSON, UH,
2 SARAH PARSONS, UH, WITH, UM, AVANGRID.

3 **CHAIR FLEXON:** THANKS, ERIC.

4 [00:47:59]

5 **SARA PARSONS:** GOOD AFTERNOON. THANKS EVERYONE FOR YOUR
6 TIME TODAY.

7 MY NAME IS SARA PARSONS.

8 I'M OUR VICE PRESIDENT OF ORGANIC GROWTH FOR AVANGRID. AVANGRID
9 OPERATES IN 24 STATES ACROSS THE COUNTRY. WE HAVE BOTH A NETWORKS
10 BUSINESS WITH EIGHT UTILITIES SERVING OVER 3 MILLION CUSTOMERS, AND
11 WE HAVE A RENEWABLE GENERATION BUSINESS.

12 WE'RE THE THIRD LARGEST WIND OPERATOR IN THE UNITED STATES, AND
13 WE HAVE PRO..., OVER EIGHT GIGAWATTS OF PROJECTS OPERATING, INCLUDING
14 FIVE WIND PROJECTS IN TEXAS, A SOLAR PROJECT IN CONSTRUCTION TOTALING
15 ABOUT 1200 MEGAWATTS.

16 AVANGRID'S MISSION STATEMENT IS TO GENERATE SAFE, RELIABLE
17 ELECTRICITY FOR OUR CUSTOMERS, WORKING WITH UTILITIES AND
18 COMMUNITIES TO DELIVER A MORE ACCESSIBLE CLEAN ENERGY MODEL.

19 AT THE END OF THE DAY, RESOURCE OWNERS, OPERATORS,
20 MANUFACTURERS, AND INVESTORS WANT THE SAME THING AS ERCOT, TO RELY
21 ON AND SUPPORT A RELIABLE GRID.

22 TO SUCCEED IN THAT, HOWEVER, WE NEED CLEAR AND
23 UNDERSTANDABLE RULES FOR RELIABILITY BASED ON BOTH ENGINEERING
24 PRINCIPLES AND ECONOMIC PRINCIPLES THAT ENABLE PLANTS TO KEEP
25 OPERATING AND BUSINESSES TO KEEP INVESTING.

1 MY TEAM IS RESPONSIBLE FOR ONSHORE WIND, SOLAR, AND STORAGE
2 INVESTMENTS AND OBTAINING FINANCING TO BRING THOSE PROJECTS INTO
3 CONSTRUCTION AND OPERATION.

4 WHEN WE ARE MAKING STRATEGIC DECISIONS ABOUT WHERE TO DEVELOP
5 PROJECTS AND MAKE INVESTMENTS, WE NEED REGULATORY CERTAINTY.

6 WE NEED CLEAR RULES TO ENABLE BUSINESSES TO NAVIGATE THE
7 COMPLEX MAZE OF RULES AND THEIR ASSOCIATED COMPLIANCE
8 REQUIREMENTS.

9 UNCLEAR AND UNFAIR RULES DAMPEN NEEDED INVESTMENTS IN
10 INFRASTRUCTURE AND RELIABLE ENERGY.

11 THE JOINT COMMENTERS HAVE SPENT HUNDREDS OF HOURS DISCUSSING
12 AND NEGOTIATING WAYS TO IN ENHANCE INVERTER BASED RESOURCES
13 CAPABILITIES TO RIDE THROUGH SYSTEMS DISTURBANCES WITHOUT
14 DISRUPTING THE ABILITY OF RESOURCES TO OPERATE THROUGH THE EXTENDED
15 EXPECTED USEFUL LIFE.

16 NOT ALL OF THE JOINT COMMENTERS ARE ALIGNED ON EVERYTHING,
17 HOWEVER, WE WORK TOGETHER TO ACHIEVE RESULTS THAT ACCOMPLISH
18 THREE THINGS, IMPROVE RELIABILITY, ALLOW PLANTS TO OPERATE RELIABLY
19 TO THEIR EXPECTED LIFE, AND PROVIDE CLEARLY DEFINED RULES FOR
20 REGULATORY CERTAINTY FOR INVESTORS.

21 THE TAC APPROVED NOGRR OF 245 PROVIDES A CLEAR PROCESS FOR
22 REQUESTING EXEMPTIONS AND APPROVING REJECTING REQUESTS FOR
23 EXEMPTIONS.

24 INVESTORS NEED EVIDENCE-BASED AND FAIR PROCESS AND THE TAC
25 APPROVED NOGRR 245 COMMENTS PROVIDE THAT.

1 IT PROVIDES STRUCTURE AND DETAILS REGARDING, REGARDING HOW TO
2 SUBMIT AN EXEMPTION REQUEST, WHAT INFORMATION NEEDS TO BE THERE,
3 THE TIMELINE, AND HOW YOU RESOLVE A DISAGREEMENT PRIOR TO
4 SUBJECTING THE COMMISSION TO A CONTESTED CASE.

5 IT ALSO PROVIDES RESOURCE OWNERS WITH INFORMATION REGARDING
6 WHERE THE REQUEST IS IN THE PROCESS AND ASSURANCE THAT IT HAS IN GOOD
7 FAITH.

8 WORK WITH ERCOT TO RESOLVE ANY MISUNDERSTANDINGS OR
9 DISAGREEMENTS BEFORE LITIGATING THE ISSUE AT THE COMMISSION.

10 WE NEED CLEAR AND FAIR REGULATORY PROCESS TO ENABLE BUSINESSES
11 TO INVEST AND GROW.

12 I APPRECIATE YOUR TIME TODAY.

13 AND NEXT WILL BE OMAR MARTINO, THE EXECUTIVE VICE PRESIDENT OF
14 MARKETS AND REGULATORY FOR INVENERGY.

15 **CHAD V. SEELY:** AND THERE'S ABOUT FOUR AND A HALF MINUTES
16 LEFT AHEAD.

17 [00:51:26]

18 **OMAR MARTINO:** THANK YOU. I'LL TRY TO BE QUICK.

19 UM, GOOD AFTERNOON.

20 MY NAME IS OMAR MARTINO. I AM THE EXECUTIVE VICE PRESIDENT OF
21 MARKETS AND REGULATORY AFFAIRS AT INVENERGY.

22 INVENERGY IS THE LARGEST, UM, PRIVATELY HELD ENERGY COMPANY IN
23 THE WORLD.

24 WE HAVE ABOUT 202 PROJECTS AND WE HAVE BUILT AND DEVELOPED
25 ABOUT 31 GIGAWATTS OF CAPACITY TO THE NETWORK.

1 WE HAVE CLOSED APPROXIMATELY \$59 BILLION OF, OF TRANSACTIONS
2 ACROSS, UM, MULTIPLE TECHNOLOGIES INCLUDING SOLAR, WIND, BATTERIES,
3 STORAGE, WHERE WE ARE ALSO IN THE BUSINESS OF OFFSHORE WIND AND AS
4 WELL AS, UM, CLEAN HYDROGEN AS WELL.

5 UH, WE OPERATE, UH, PROJECTS IN ALMOST ALL OF THE JURISDICTIONS
6 ACROSS THE ORGANIZED MARKETS IN THE UNITED STATES.

7 HERE IN TEXAS.

8 WE HAVE 17 PROJECTS IN OPERATION, ONE PROJECT IN CONSTRUCTION,
9 AND THREE PROJECTS UNDER CONTRACT.

10 THIS, THESE PROJECTS COMPRISE ABOUT 4.4 GIGAWATTS OF GENERATION
11 IN ERCOT, AND THEY SUPPLY ENERGY TO ABOUT 1.3 MILLION, UM, AMERICAN
12 HOMES.

13 IN FACT, IN 2021, WE HAVE INVESTED \$1.6 BILLION IN THE STATE, IN ONE OF
14 THE LARGEST INVESTMENTS IN A SOLAR FARM IN THE STATE OF TEXAS.

15 THIS IS WHY I CAME HERE TODAY, UH, TO TALK TO YOU PERSONALLY, TO
16 TALK TO YOU AND TO YOUR COLLEAGUES, AND TO ASK YOU, UH, TO, TO
17 APPROVE THE, THE TAC APPROVED NOGRR, UH, 245.

18 THE RETROACTIVE IMPLEMENTATIONS OF ANY MARKET RULES WITHOUT A
19 TECHNICALLY OR COMMERCIALY FEASIBLE PATH TO COMPLIANCE IS
20 ESSENTIALLY GONNA SEND A VERY CHILLING SIGNAL AND CHILLING EFFECT TO
21 ANY ADDITIONAL INVESTMENT IN IN ERCOT.

22 WE RECOGNIZE THAT THERE'S NO, THERE'S NO DOUBT THAT THE ENERGY
23 IS, IS, UH, THE ENERGY, THE GRID IS, IS CHANGING AND THERE'S NO DOUBT THAT
24 THE GENERATION MIX IS ALSO CHANGING.

1 AND WE FULLY SUPPORT ERCOT IN ITS RELIABILITY MANDATES AND, AND
2 ABILITY AND REQUIREMENT TO, TO SECURE THE GRID.

3 WE, WE RECOGNIZE THOSE ISSUES, WE TAKE THOSE ISSUES SERIOUSLY. THE
4 ISSUE THAT ERCOT HAS IDENTIFIED, THE ISSUES THAT NERC HAS IDENTIFIED,
5 BUT THIS IS WHY I AM HERE TO ASK YOU TO APPROVE THE TAC APPROVED
6 NOGRR.

7 THE, THE IBRS THAT HAVE, THAT WERE INVOLVED IN IN THE PAST LARGE,
8 UH, DISTURBANCES, THEY CAN ACTUALLY CORRECT THEIR PAST PERFORMANCE.

9 AS ERIC JUST ESSENTIALLY ALLUDED TO JUST A FEW MINUTES AGO.
10 THERE ARE A NUMBER OF MODIFICATIONS, MODIFICATIONS THAT ARE AT THE
11 SOFTWARE LEVEL, MODIFICATIONS THAT ARE COMMERCIALY REASONABLE
12 MODIFICATIONS.

13 THOSE MODIFICATIONS ARE AVAILABLE TODAY. THOSE MODIFICATIONS
14 CAN GO FORWARD.

15 NOT ONLY THEY CAN GO FORWARD FOR THEIR RESPECTIVE, YOU KNOW,
16 IBR THAT WILL GO FORWARD FOR AN ONGOING DUTY, INCLUDING
17 MODIFICATIONS AT THE HARDWARE LEVEL THAT ARE REASONABLE.

18 THE IMPORTANT POINT HERE IS THAT ONCE THESE MODIFICATIONS TAKE
19 PLACE, ONCE THE MODIFICATIONS ARE EFFECTIVE, 88% OF THOSE IBRS THAT
20 WERE INVOLVED IN THE ODESSA EVENTS WOULD HAVE BEEN ABLE TO COMPLY
21 WITH THE STANDARDS THAT ERCOT IS PUTTING FORWARD.

22 THIS IS, THIS IS A VERY IMPORTANT POINT.

23 THIS IS, THIS IS THE POINT OF WHAT IS COMMERCIALY REASONABLE
24 EFFORTS. THIS IS THE POINT OF WHAT ARE THE MODIFICATIONS THAT ARE
25 AVAILABLE TODAY. 88% WOULD BE ABLE TO COMPLY.

1 IN CONTRAST, WHAT ERCOT IS SENDING IS ESSENTIALLY AN OVEREACH.
2 IT IS IMPOSING ESSENTIALLY UNACHIEVABLE REQUIREMENTS.
3 REQUIREMENTS THAT CANNOT BE MET.
4 REQUIREMENTS THAT IN FACT, IN MY OPINION, THERE'S NO EVIDENCE
5 THAT ARE NEEDED.

6 AND THEY'RE ALSO POSING ARBITRARY COST THRESHOLDS TO HARDWARE
7 MODIFICATIONS.

8 AS I COME HERE TODAY, I AM ASKING YOU TO, TO NOT MOVE FORWARD
9 WITH A PLAN THAT IS GOING TO RESTRICT INVESTMENTS IN THE STATE OF
10 TEXAS AND IT'S POTENTIALLY GONNA SEND A CHILLING EFFECT AND, AND
11 EITHER RETIRE OR DISCONNECT EXISTING, EXISTING, UM, GENERATORS.

12 WE ALL RECOGNIZE THE RELIABILITY IS A BIG ISSUE AND I, AS I SAID
13 EARLIER, YOU KNOW, WE FULLY SUPPORT IT, BUT WE HAVE TO DO IT IN A JUST
14 AND REASONABLE WAY.

15 WE HAVE TO DO IT IN A WAY THAT THAT IS, IS EFFECTIVE. IT PROTECTS
16 INVESTMENTS, PAST INVESTMENTS, AND IT PROTECTS FUTURE INVESTMENTS
17 AS, AS WELL.

18 AND THE TAC APPROVED VERSION ESSENTIALLY, ESSENTIALLY DOES THAT.

19 WE ALSO DON'T BELIEVE THAT REMANDING THIS, THIS BACK TO TAC IS
20 GOING TO ACHIEVE ANY PURPOSE OTHER THAN JUST FURTHER DELAYS AND
21 ADDING ADDITIONAL UNCERTAINTY AND, AND, AND CONFUSION.

22 UM, THANK YOU FOR YOUR TIME. I AM, UM, HAPPY TO ASK QUESTIONS. THE
23 NEXT SPEAKER IS MARK, UH, WITH NEXTERA.

1 **MR. SEELY:** AND MARK, IF YOU COULD BE QUICK WITH YOUR
2 COMMENTS AND NOT REPEAT WHAT PREVIOUS SPEAKERS HAVE SAID, I'D
3 APPRECIATE IT.

4 [00:56:35]

5 **MARK AHLSTROM:** I, I DEFINITELY SHALL.

6 UH, I'M MARK AHLSTROM, VP OF RENEWABLE ENERGY POLICY FOR
7 NEXTERA ENERGY AND ALSO A PRESIDENT OF THE BOARD OF THE NONPROFIT
8 ENERGY SYSTEMS INTEGRATION GROUP, WHICH IS A, A NON-PROFIT, NON-CON
9 VENING PLACE WHERE THE ENGINEERS GET TOGETHER TO SOLVE SOME OF
10 THIS STUFF YEARS IN ADVANCE AND DO A LOT OF GREAT WORK.

11 UH, E OR E, UH, E-CIG, UH, ERCOT RATHER, IS A, IS A ACTIVE MEMBER THERE
12 AND SHARES WORKING GROUPS AND IT'S BEEN A VERY PRODUCTIVE FORUM FOR
13 US.

14 UH, NEXTERA I THINK, YOU KNOW, PRETTY WELL, WE'RE A BIG PUBLIC
15 COMPANY.

16 WE'VE GOT \$20 BILLION INVESTED IN TEXAS ANNUAL PAYROLL WITHIN
17 TEXAS OF 427 MILLION AND ABOUT 120 MILLION PER YEAR IN PROPERTY TAXES
18 AND LAND PAYMENTS AND NEXTERA HAS A LONG HISTORY OF RELIABILITY,
19 BOTH IN OUR GENERATION AND TRANSMISSION FLEET ACROSS THE COUNTRY
20 AND IN FLORIDA POWER AND LIGHT, OUR UTILITY IN FLORIDA.

21 BUT I WANTED TO SPEAK MORE FROM MY PERSONAL POINT OF VIEW.

22 I MEAN, YOU'LL, YOU'LL NOT FIND ANYBODY IN THE INDUSTRY THAT'S
23 MORE COMMITTED TO RELIABILITY AS WE DO ALL THIS THAN YOU WILL IN
24 MYSELF.

1 I HAVE A LONG HISTORY OF SUPPORTING RELIABILITY WORKING WITH AT
2 NERC WHERE, UH, WOODY AND I HAVE BEEN ON THE NERC, UH, RELIABILITY
3 ISSUE STEERING COMMITTEE, DONE A LOT OF GOOD WORK TOGETHER OVER THE
4 YEARS ALSO AT D.O.E AND AT ESIG, AS I MENTIONED, AND THE INDUSTRY AS A
5 WHOLE.

6 UH, YOU KNOW, I'LL, I'LL JUST SAY THAT I THINK THAT, YOU KNOW, WHAT
7 WE HAVE A TAC APPROVED PROPOSAL IS A STRONG, EFFECTIVE AND PRUDENT
8 PROPOSAL THAT SHOULD BE APPROVED AND IMPLEMENTED IMMEDIATELY.

9 THE CHALLENGE, THE THING I THINK WE'RE MISSING WITH THE ESIG
10 PROPOSAL IS THAT IT JUST DOESN'T REALLY WORK FROM A BUSINESS POINT OF
11 VIEW, RIGHT? UPGRADE COSTS ARE UNBOUNDED IF THEY CAN PROVIDE EVEN
12 NON-MATERIAL LEVELS OF IMPROVEMENT WITH NO COMMERCIAL
13 REASONABILITY TEST. YOU KNOW, IT'S NO DIFFERENT IF YOU'RE INVESTING IN
14 BILLIONS OF DOLLARS IN RENEWABLE PLANTS OR, OR GENERATORS THAN IT IS
15 THE GAS STATION OWNER ON THE CORNER.

16 YOU'RE NOT GONNA GET A LOAN TO UPGRADE YOUR GAS STATION IF YOU
17 CAN'T SHOW THAT THE BUSINESS PLAN SUPPORTS PAYING BACK THAT LOAN
18 WITH THE FUTURE REVENUE STREAM AND THE LEVEL OF RISK THAT'S ENTAILED
19 AND IT IS NO DIFFERENT HERE.

20 ALSO HAS BEEN POINTED OUT THE RETROACTIVE APPLICATION REALLY
21 SENDS A, A BAD SIGNAL TO FUTURE INVESTMENT.

22 AND WE LOOK FORWARD TO INVESTING ANOTHER 20 BILLION IN PROJECTS
23 IN ERCOT.

24 UH, THE BOTTOM LINE IS THAT IT JUST FORCES INVESTORS TO MAKE
25 ARBITRARILY HIGH LEVELS OF INVESTMENT UPON THE THREAT OF

1 OPERATIONAL RESTRICTIONS, DISCONNECTION, AND FORCED EARLY
2 RETIREMENT.

3 AND THAT'S JUST NOT COMMERCIALY REASONABLE AND SIMPLY CANNOT
4 BE MADE BY ANY PRUDENT GENERATOR OPERATOR OR INVESTOR. THE SAME AS
5 A GAS STATION.

6 YOU KNOW, ALL WE'RE LOOKING FOR IS A WAY WHERE WE CONTINUE TO
7 DO BUSINESS IN A LOGICAL WAY THAT'S GOING TO MAKE SURE INVESTMENTS
8 ARE LINED UP WITH THE FUTURE REVENUE STREAM.

9 SO I STRONGLY URGE THE, THE BOARD TO, UH, APPROVE THE TAC
10 APPROVED NOGRR 245 PROPOSAL.

11 DO NOT REMAND IT BACK TO TAC, THAT SERVES NO PURPOSE AND MERELY
12 DELAYS RELIABILITY IMPROVEMENTS THAT WE'RE EAGER TO MAKE.

13 THANK YOU.

14 [00:59:32]

15 **CHAIR FLEXON:** THANK YOU MARK.

16 I'LL OPEN IT UP FOR QUESTIONS FOR ANY OF THE COMMITTEE MEMBERS,
17 BOARD MEMBERS OR COMMISSIONERS TO ANY OF THE SPEAKERS. QUESTIONS?

18 JULIE?

19 **DIRECTOR ENGLAND:** I'LL START WITH THE SOFTBALL QUESTION.

20 ASSUMING WE PASS NOGRR 245, WHAT, WHAT ARE THE PLANS AT ERCOT TO
21 MEASURE IMPLEMENTATION AND ACTUALLY INSPECT FOR IMPLEMENTATION?

22 THIS IS GONNA BE LIKE WINTERIZATION WHERE WE WERE PUTTING HANDS
23 ON PHYSICAL ASSETS TO SEE IF THEY'VE BEEN, THEIR SOFTWARE'S BEEN
24 UPGRADED, FOR EXAMPLE?

1 **WOODY RICKERSON:** YEAH, THIS IS A, THIS IS WOODY RICKERSON
2 WITH ERCOT.

3 SO IT, IT IS NOT QUITE LIKE WEATHERIZATION IN THAT, UH,
4 WEATHERIZATION IS SOMETHING THAT YOU CAN GO OUT AND INSPECT.

5 DID THEY WRAP THEIR PIPES? DID THEY HAVE HEAT TRACING, THINGS LIKE
6 THAT.

7 WITH, UH, WITH THESE IMPROVEMENTS IT'S ALMOST, I MEAN, THEY GIVE
8 US A MODEL AND WE CAN SIMULATE THE, THE SYSTEM USING A MODEL WHEN
9 WE CAN SEE IF THE RIDE THROUGH WORKS USING THE MODEL.

10 UNFORTUNATELY A LOT OF THE MODELS WE'VE RECEIVED HAVEN'T
11 ACCURATELY REPRESENTED THE ACTUAL CHARACTERISTICS OF THE UNITS.

12 A LOT OF THAT IS, THERE'S A LOT OF LEARNING PROCESS THAT GOES ON
13 THERE WHERE MODELS GET CHANGED AND THEY GET IMPROVED AND
14 EVENTUALLY YOU GET SOMEWHERE, BUT A LOT OF THIS STUFF IS NEW AND SO
15 THIS ISN'T SOMETHING THAT YOU CAN GO OUT AND INSPECT AND SAY, SURE
16 ENOUGH, WE'VE GOT EVERYTHING READY TO GO.

17 WE CAN LOOK AT WHAT'S NEEDED, WE CAN LOOK AT WHAT THE MODEL
18 SAYS IT WILL DO.

19 BUT THAT'S ABOUT AS FAR AS WE CAN GO.

20 **CHAIR FLEXON:** OTHER QUESTIONS?

21 **DIRECTOR HJALTMAN:** UM, I HAVE A QUESTION ON THE
22 COMMERCIAL REASONABLE COMPONENT OF WHAT'S BEING USED.

23 AND IT SEEMS AS IF OBVIOUSLY THAT WILL BE UP TO EACH RESOURCE TO
24 DECIDE.

1 AND THEN HOW DOES ERCOT GO BACK AND USE THAT IN DECIDING IF THE
2 EXEMPTION IS ACCURATE OR NOT? BECAUSE IT'S A MOVING TARGET
3 CONTINUALLY, IT'S NOT DEFINED ANYWHERE AND I DON'T THINK THAT SHOULD
4 BE SOMETHING THAT'S USED IN OUR DEFINITION. IF IT'S NOTHING CONCRETE.

5 [1:01:50]

6 **MR. GOFF:** UH, I'D BE HAPPY TO ANSWER THAT.

7 SO, UH, EVERY PROJECT HAS UNIQUE CHARACTERISTICS, UH, SUCH AS HOW
8 LONG IT'S UNDER CONTRACT, WHAT THE LOCAL PRICE IS, UM, WHETHER OR NOT
9 IT'S AT A RICH SITE FOR SOLAR OR WIND OR ENERGY STORAGE.

10 AND SO WHETHER SOMETHING IS COMMERCIALY REASONABLE DEPENDS
11 ON MANY FACTORS.

12 IN EACH CASE ERCOT WILL RECEIVE A REPORT FROM EVERY GENERATOR
13 THAT'S SIMILARLY SITUATED ABOUT WHETHER OR NOT THAT GENERATOR
14 THINKS THAT SOMETHING IS COMMERCIALY REASONABLE TO DO OR NOT.

15 AND IF THREE OF THEM SAY IT IS AND ONE OF THEM SAYS IT'S NOT, ERCOT
16 WILL HAVE PRETTY STRONG EVIDENCE THAT THERE'S SOMETHING GOING ON
17 THEY NEED TO DIG INTO.

18 SO IT'S DIFFICULT TO, TO WRITE A FORMULA FOR WHAT IT IS, BUT ERCOT
19 WILL HAVE LOTS OF INFORMATION.

20 ERCOT CURRENTLY TALKS TO ALL OF THE OEMS IS AWARE OF OEM
21 OFFERINGS.

22 THAT'LL HAPPEN MORE SO IN THE FUTURE AS THERE'S THIS ANNUAL
23 PROCESS.

24 UH, AND THIS IS SOMETHING WE CAN IMPROVE OVER TIME.

25 IF, IF WE IDENTIFY SOMETHING.

1 THIS ISN'T THE LAST BITE OF THE APPLE.

2 **CHAIR FLEXON:** I HAVE A QUESTION.

3 AND I'M NOT SURE WHO'S BEST TO ANSWER IT, BUT YOU KNOW, DAN PUT A
4 SLIDE TOGETHER AHEAD IN HISTORY, RECENT HISTORY, 20 TO 30 RIDE THROUGH
5 EVENTS.

6 AND I THINK WE ALL UNANIMOUSLY AGREE THAT RELIABILITY IS AN
7 ABSOLUTE MUST, UH, FOR ERCOT IN THE STATE.

8 BUT WHAT I HEAR FROM THE SUPPLY SIDE IS, IS SOME OF THIS COULD COST
9 US MONEY.

10 I HEAR THAT FROM A QUALITATIVE STANDPOINT.

11 I DON'T, I HAVEN'T HEARD ANYTHING FROM A QUANTITATIVE STANDPOINT
12 AND JUST THE DEFENSE THAT IT'S GONNA COST US IS, TO ME, IS SECONDARY TO
13 RELIABILITY OF THE SYSTEM.

14 CAN YOU HELP ME UNDERSTAND, MAYBE, YOU KNOW, THE
15 QUANTIFICATION OF SOMETHING LIKE THIS?

16 [1:03:38]

17 **MR. GOFF:** UH, YES.

18 TO HELP ME ANSWER THIS QUESTION, I'M GONNA ASK DAVE AZARI FROM
19 INVENERGY TO WALK THROUGH THESE NUMBERS, UM, TO GIVE YOU HOPEFULLY
20 THE ANSWER THAT YOU'RE LOOKING FOR.

21 **DAVE AZARI:** THANKS, ERIC.

22 HI, EVERYBODY.

23 DAVE AZARI WITH INVENERGY, SENIOR VICE PRESIDENT OF RENEWABLES
24 ASSET MANAGEMENT.

1 UM, SO BEFORE I GO TO THE SLIDE, I MEAN, I WANT TO, BEFORE WE GET
2 INTO THE DETAIL HERE, I THINK THERE'S A COUPLE OF CRITICAL THINGS, RIGHT?
3 SO THE RANGE THAT WE'RE TALKING ABOUT FOR THE SOLUTIONS THAT ARE
4 AVAILABLE, RANGE FROM SOFTWARE PARAMETER, RIGHT FIELD FIRMWARE
5 MODIFICATIONS TO MINOR RETROFIT KITS TO MORE SUBSTANTIAL UPGRADES
6 THAT COULD POTENTIALLY GO ALL THE WAY OVER TO KIND OF FULL OR
7 REBUILDS OF EQUIPMENT THAT EXIST TODAY, RIGHT? AND I THINK THAT MOST
8 PEOPLE WOULD AGREE THAT EVERYTHING IN THIS CATEGORY IS CLEARLY
9 COMMERCIALY UNREASONABLE.

10 HOWEVER, DEPENDING ON HOW YOU READ ERCOT'S LATEST APRIL 15TH
11 PROPOSAL, THERE IS KIND OF CONFLICTING LANGUAGE IN SOME CASES WHERE
12 IT SAYS ANYTHING THAT'S TECHNICALLY FEASIBLE HAS TO HAPPEN.

13 AND IN OTHER CASES, THEY IMPOSE KIND OF A STRICT COST THRESHOLD
14 THAT IS, SEEMS TO BE ARBITRARILY DETERMINED, AND ANYTHING UNDER THAT
15 SEEMS TO BE REQUIRED AND OVER MIGHT GET AN EXEMPTION.

16 SO THE FIRST ANSWER TO THE QUESTION IS, IF YOU HAVE TO CHANGE
17 EVERY CONVERTER AND EVERY TURBINE THAT EXISTS, OR CHANGE OUT EVERY
18 INVERTER IN AN EXISTING SOLAR FARM, THAT WE'RE TALKING TENS OF
19 MILLIONS OF DOLLARS PER PROJECT, RIGHT? LIKE HUGE, UH, CRIPPLING COSTS
20 THAT'S OUT HERE.

21 AND MAYBE ERCOT DOESN'T INTEND THAT, BUT THEIR LANGUAGE IN THIS
22 LATEST DRAFT DOES INCLUDE THAT CONCEPT.

23 IF WE TAKE A MORE CHARITABLE VIEW OF THE LANGUAGE AND SAY, OKAY,
24 THAT'S NOT REALLY THE INTENT, AND WE'RE REALLY TALKING ABOUT UNDER A
25 CERTAIN COST THRESHOLD, THAT'S WHERE WE GET INTO THIS EXAMPLE.

1 AND SO WHAT WE DID WAS WE TRIED TO INTERPRET THE LANGUAGE THAT
2 WAS THERE, AND ERCOT SAYS, OKAY, WE'RE GONNA CHOOSE A BOUND, RIGHT, X
3 PERCENT OF, OF THE COST OF REPLACING AN INVERTER OR Y PERCENT OF THE
4 COST OF CHANGING A CONVERTER.

5 AS LONG AS THE COST OF A MODIFICATION IS UNDER THAT LEVEL, THEN
6 YOU MUST DO IT. WORK MORE PRECISELY. WE WON'T GIVE YOU AN EXEMPTION
7 IF THAT KIND OF MODIFICATION EXISTS.

8 AND SO WE MOCKED UP HERE A COUPLE OF EXAMPLES, AND YOU CAN SEE
9 WE HAVE FOUR PROJECTS, TWO WIND PROJECTS, TWO SOLAR PROJECTS UNDER
10 KIND OF DIFFERENT FLA, FLAVORS OF ERCOT'S REQUIREMENTS.

11 AND FOR, YOU KNOW, AN AVERAGE REPRESENTATIVE SIZE WIND PROJECT,
12 YOU COULD BE TALKING THREE AND A HALF TO \$8 MILLION, RIGHT? OF, WELL,
13 IN THIS CASE, 3.4 MILLION TO \$7.5 MILLION OF EXPENSE AT THAT ONE WIND
14 PROJECT FOR THIS MODIFICATION.

15 AND AT A LARGER SOLAR PROJECT, YOU COULD SEE THE ORDER OF
16 MAGNITUDE FOUR AND A HALF MILLION TO 11 MILLION.

17 AND JUST TO SCALE IT, WE PUT ON A DOLLAR PER MEGAWATT HOUR BASIS,
18 YOU CAN SEE WE'RE TALKING LIKE NINE TO \$20 PER MEGAWATT HOUR OVER
19 ONE YEAR OF COST POTENTIALLY.

20 NOW, AGAIN, THIS IS NEW PROPOSAL BY ERCOT AS OF APRIL 15TH, RIGHT?
21 IT'S NOT THE PROPOSAL THAT THEY BROUGHT TO TAC, UH, BUT THAT GIVES YOU
22 SOME SENSE.

23 I MEAN, THESE ARE MATERIAL FIGURES, RIGHT? I MEAN, I THINK YOU...

24 **CHAIR FLEXON:** THAT'S A ONE YEAR COST, RIGHT? THAT'S NOT A
25 PERPETUITY...

1 **MR. AZARI:** THAT'S A ONE YEAR COST.

2 **CHAIR FLEXON:**... THAT'S WHAT YOU HAVE TO TAKE TO RECOVER.

3 **MR. AZARI:** YEAH, THAT'S, YEAH, THAT'S A ONE YEAR COST.

4 BUT AGAIN, IN SOME CASES, RIGHT, YOU MAY HAVE A PROJECT WHERE THIS
5 KIND OF COST WOULD BE CONSIDERED COMMERCIALY REASONABLE, BUT YOU
6 COULD EASILY HAVE PROJECTS WHERE THIS IS COMMERCIALY
7 UNREASONABLE.

8 AND THE IDEA HERE IS THAT I THINK TWO THINGS. ONE IS THESE ARE
9 ARBITRARY FIGURES, RIGHT? THERE'S, THERE'S NO EVIDENCE THAT SAYS, OH, 20
10 PERCENT'S THE RIGHT NUMBER AND NOT 10%.

11 AND I'D SAY THE SECOND THING IS, IS A PRACTICAL MATTER, RIGHT? THE
12 OEMS ARE GONNA GO DEVELOP PRODUCTS TO SELL US.

13 IF YOU PUT THIS NUMBER THAT JUST SAYS YOU MUST SPEND X, GUESS
14 WHAT THE PRICE IS GONNA BE, IT'S GONNA BE X, RIGHT? SO THERE, THERE'S AN
15 ISSUE HERE WHERE THIS, THIS KIND OF CONSTRUCT DOESN'T WORK FOR US.

16 SO WE UNDERSTAND, RIGHT, THAT THERE'S A LITTLE BIT OF COMPLEXITY
17 WITH HAVING AN INDIVIDUAL KIND OF PROJECT LEVEL COMMERCIAL
18 REASONABILITY.

19 BUT AS ERIC SAID, AS A PRACTICAL MATTER, THERE'S ONLY A HANDFUL OF
20 LARGE OEMS THAT SERVE THE MARKET.

21 EACH ONE OF THOSE TALKS TO ERCOT, AND WHEN THEY HAVE A PRODUCT,
22 THEY'RE GONNA GO TO ERCOT AND SAY, WE HAVE THIS AVAILABLE.

23 AND THE ONUS IS GONNA BE ON US TO SAY, OH, IT DOESN'T MAKE SENSE
24 WHEN IT LOOKS TO ERCOT LIKE IT MAKES SENSE.

1 SO I THINK THAT THAT'S HOW WE GET COMFORTABLE WITH LIKE, THAT THIS
2 WILL SOLVE THE ISSUE AND THAT THERE'S NOT SOME LOOPHOLE THAT...

3 [1:07:4]

4 **DIRECTOR SWAINSON:** ARE YOU SUGGESTING THAT OEMS ARE NOT
5 GONNA BUILD PRODUCT TO 2800?

6 **MR. AZARI:** NO.

7 **DIRECTOR SWAINSON:** THAT'S RIDICULOUS.

8 **MR. AZARI:** THAT, THAT'S NOT WHAT I'M SUGGESTING.

9 **DIRECTOR SWAINSON:** WELL, THAT'S WHAT YOU JUST SAID.
10 YOU JUST SAID THEY'RE GONNA RAISE THEIR PRICE TO MEET THE MARKET.

11 **MR. GOFF:** NOW IF, IF I CAN ADDRESS THAT, I APPRECIATE IT.
12 SO THEY ARE DESIGNING STUFF FOR THIS, BUT THIS IS FOR EXISTING
13 FACILITIES AND WHAT THEY HAVE TO DO.

14 SO ALL OF THEM ARE DESIGNING STUFF FOR NEW FACILITIES. FOR
15 EXISTING FACILITIES, CAN YOU MAKE AN UPGRADE? THEY MIGHT BE ABLE TO
16 DESIGN A NEW KIT THAT DOESN'T EXIST YET. AND THAT'S WHAT WE'RE TALKING
17 ABOUT.

18 **CHAIR FLEXON:** CARLOS HAD A QUESTION FOLLOWED BY LINDA.

19 **DIRECTOR AGUILAR:** UH, A COUPLE POINTS.

20 I MEAN, WE UNDERSTAND THE POINT YOU'RE MAKING ABOUT, UH,
21 COMMERCIALLY VIABLE, UH, IMPROVEMENTS.

22 UM, BUT YOU KNOW, SIMILAR TO WHAT, UH, THE CHAIR WAS SAYING,
23 RELIABILITY COMES FIRST IN A MARKET LIKE OURS, RIGHT? I DON'T THINK
24 THERE'S ANY MARKET IN THE WORLD THAT BELIEVES MORE IN PRIVATE

1 ENTERPRISE AND INVESTMENT AND CERTAINTY OF, UH, RETURNS AND ALL
2 THESE THINGS.

3 UH, NOWHERE IN THE WORLD DO YOU HAVE THIS KIND OF ENVIRONMENT.
4 BUT WHY IS IT UNREASONABLE TO ASK, UH, THAT THESE IMPROVEMENTS
5 START IN 2023 WHEN I TRIPLE E 2800 IS FROM 2022?

6 **MR. GOFF:** YEP. I'M HAPPY TO ANSWER THAT.

7 UH, SO, UM, IN MANY CASES, UM, EQUIPMENT HAS ALREADY BEEN
8 PURCHASED, IS ONE GOOD EXAMPLE.

9 SO DURING THE SUPPLY CHAIN CRISIS THAT WE WENT THROUGH AS A A, A
10 COUNTRY AND AS A SOCIETY, YOU KNOW, INTERNATIONAL TRADE, IN ORDER TO
11 GET STUFF IN THROUGH THE SUPPLY CHAIN, YOU HAD TO PLACE YOUR ORDERS
12 TO MAKE IT HAPPEN YEARS IN ADVANCE.

13 THAT'S ONE ANSWER.

14 UM, TWO, UH, AND THAT'S A REAL WORLD, UM, REAL WORLD ISSUE WITH
15 SOME OF OUR, OUR MEMBER COMPANIES.

16 UH, TWO IS, UH, ERCOT HAS PROPOSED CHANGES TO THE RIDE THROUGH
17 STANDARD EVEN IN THE LAST COUPLE OF MONTHS THAT WEREN'T PART OF I
18 TRIPLE E 2800.

19 UM, SO IT'S TOUGH TO DESIGN A MOVING TARGET.

20 THAT'S WHY WE WANNA GET THESE RULES IN PLACE AS QUICKLY AS
21 POSSIBLE SO THE RULES CAN BE FINALIZED.

22 [1:09:59]

23 **MR. AHLSTROM:** IF I COULD ADD JUST.

24 WE, WE DO A TON OF WORK, UH, ON PEOPLE THAT ARE IMPLEMENTING I
25 TRIPLE E 2800.

1 THE STANDARD IS VERY GOOD.

2 IT TAKES YEARS FOR AN I TRIPLE E STANDARD TO ACTUALLY GET
3 THROUGH THE ENGINEERING PROCESS AND GET INTO PRODUCTION WITH OEMS.
4 I DON'T KNOW OF ANY OEM THAT IS SHIPPING TODAY A 2800 COMPLIANT, UH,
5 INVERTER OR, OR WINTER, BUT IT TAKES A LOT OF ENGINEERING AND UPDATES,
6 FULL SUPPORT FOR IT, UH, YOU KNOW, BUT, UH, AS YOU SAID, THE TEST
7 STANDARDS STILL COMING OUT.

8 WE, WE, WE WANT 2800 COMPATIBLE PLANTS AT THE POINT OF
9 INTERCONNECTION.

10 ALSO AT ESIG, WE'RE COMING OUT WITH GRID FORMING ADDITIONS TO
11 THAT, WHICH WOULD BE IN THAT PROBABLY THE NEXT VERSION OF THAT
12 STANDARD WHERE AT LEAST SOME PORTION CAN ACTUALLY SUPPORT
13 FREQUENCY AND VOLTAGE IN WEAK GRID AREAS.

14 THIS IS, YOU KNOW, THERE'S NO QUESTION ABOUT SUPPORTING WHERE
15 THIS IS GOING.

16 THE QUESTION IS JUST ON THE TRANSITION FOR, FOR LEGACY PLANTS,
17 PARTICULARLY OLD WIND, MOST OF THE SOLAR AND BATTERY STUFF IS NOT A
18 PROBLEM, RIGHT? IT'S CLOSE.

19 **CHAIR FLEXON:** LINDA, YOU HAD A QUESTION?

20 **DIRECTOR CAPUANO:** YEAH, I GUESS MY COMMENT IS BASED ON,
21 UPON SOME OF THE RESPONSE.

22 SO COMMERCIALY REASONABLE IS TOO ONE DIMENSIONAL FOR ME AND
23 WOULD NOT GET MY SUPPORT.

24 HOWEVER, IN SOME OF THE COMMENTS THAT YOU MADE, YOU SAID THERE
25 ARE DISCUSSIONS NOW THAT ARE GETTING MORE INTO BALANCING ECONOMICS

1 AND RELIABILITY, WHICH MOVES MORE TO COMMERCIALLY, EXCUSE ME, TO
2 MORE RE YOU KNOW, UM, IT MORE PRACTICAL IMPLEMENTATION AND THAT
3 WOULD GET MORE, BUT IT SOUNDS LIKE YOU'RE MOVING INTO THOSE
4 CONVERSATIONS IN WHICH CASE APPROVING THIS CURRENT FORM IS, IS, IS
5 INCOMPLETE.

6 **CHAIR FLEXON:** I AGREE WITH THAT.

7 ANY, ANY OTHER QUESTIONS, COMMISSIONER COBOS?

8 **COMMISSIONER COBOS:** YES. SO, UM, I GUESS DAN, ON SLIDE
9 NUMBER FOUR, AND I'M JUST TRYING TO UNDERSTAND THE NUMBERS A LITTLE
10 BIT.

11 YOU KNOW, JUST A LOT OF INFORMATION, UM, THAT WE'VE BEEN, UH,
12 GIVEN TO ADDRESS THIS ISSUE TODAY.

13 BUT WITH RESPECT TO SLIDE NUMBER FOUR, UM, THERE ARE A TOTAL OF 32
14 EVENTS IN ERCOT, UM, TWO THAT ARE GREATER THAN A THOUSAND
15 MEGAWATTS.

16 I'M SUSPECTING THOSE WERE THE ODESSA EVENTS.

17 UM, AND THE MAJORITY OF THE OTHER OR THE OTHER ONES, THE 30 OTHER
18 ONES ARE BELOW A THOUSAND MEGAWATTS AND VARYING SIZES OF
19 MEGAWATTS.

20 IS THERE A CERTAIN, I MEAN, OBVIOUSLY THE OVER A THOUSAND IS THE
21 CONCERN, THE ODESSA EVENTS. BUT IS THERE A CERTAIN THRESHOLD OF
22 MEGAWATTS FOR THESE EVENTS THAT CAUSE YOU CONCERN? I, I KNOW THAT,
23 LIKE FOR INSTANCE, IN YOUR COMMENTS, YOU REFER TO THE FACT THAT
24 THERE'S 70 GIGS OF RENEWABLE ENERATION, RENEWABLE GENERATION COMING
25 ON OR IBR CAPACITY COMING OUTTA THE SYSTEM.

1 IF YOU TAKE THE, UM, 70,000 AND EXTRAPOLATE THOSE TWO EVENTS,
2 THAT'S 1.4% OF THE BROADER POLL THAT YOU'RE REFERRING TO.

3 AND SO I'M JUST TRYING TO UNDERSTAND LIKE, IS IT A CULMINATION OF, I
4 MEAN, SOME OF THESE EVENTS ARE LIKE 31 MEGAWATTS, AND SO I'M TRYING TO
5 UNDERSTAND IS IT LIKE OVER A THOUSAND THAT YOU'RE TRYING TO CARE FOR
6 OR OVER A THOUSAND MEGAWATTS?

7 **MR. WOODFIN:** YEAH, SO A, A LOT OF THESE EVENTS HAPPENED AT
8 NIGHT, AND SO THE SOLAR WAS AT A, A LOW OUTPUT.

9 OTHERS HAPPENED WHEN THE WIND WASN'T BLOWING AS MUCH.

10 AND SO THE, THE IMPACTS HERE ARE THE AMOUNTS THAT ACTUALLY WERE
11 LOST OR THAT CEASED TO PRODUCE OR SOMETHING LIKE THAT, NOT KIND OF
12 THE INSTALLED CAPACITY.

13 SO THOSE NUMBERS COULD HAVE BEEN A LOT HIGHER IF THE WIND WAS
14 BLOWING MORE OR THE SUN WAS SHINING.

15 OKAY.

16 SO, UM, NOW WHAT WOULD CAUSE A CONCERN? I MEAN, THERE'S, IT'S, IT'S
17 RATCHETING UP.

18 IF, IF IT GOES OVER OUR MOST SEVERE SINGLE CONTINGENCY, WHICH IS
19 ONE OF THE NUKE PLANTS, WE'D HAVE TO START BUYING MORE ANCILLARY
20 SERVICES IN ORDER TO COVER THAT.

21 WE'D HAVE TO START MODELING THAT AS A SINGLE CONTINGENCY.

22 THERE, THERE ARE ISSUES LIKE THAT, THAT IF WE'RE GONNA HAVE, UM, IF
23 WE'RE GONNA ALLOW THOSE THINGS TO CONTINUE, WE'RE GONNA HAVE TO
24 TAKE OPERATING ACTIONS TO PREVENT.

1 AND SO IT, IT'S KIND OF A, THERE'S NOT JUST ONE ANSWER AT MULTIPLE
2 THINGS.

3 THE FIRST WOULD BE MSSC.

4 THE SECOND WOULD BE STABILITY ISSUES WITHIN A SINGLE GEOGRAPHIC
5 AREA.

6 UM, RIGHT NOW, THE MODELS THAT THE GENERATORS HAVE PROVIDED TO
7 US DON'T EVEN SHOW THESE TRIPS SHOULD HAPPEN BECAUSE THE MODELS
8 DON'T ACCURATELY REFLECT WHAT THE PROTECTION SYSTEMS AND SOME AND
9 OTHER PARAMETERS ARE SET TO IN THE FIELD.

10 AND SO THERE'S AN ISSUE THERE THAT WE NEED TO SOLVE AS WELL.

11 UM, SO THERE'S NOT JUST ONE ANSWER TO YOUR QUESTION.

12 IT COULD BE LOTS OF DIFFERENT THINGS THAT WOULD CAUSE US A
13 CONCERN.

14 **MR. RICKERSON:** AND ALSO, UM, WE'RE GETTING MORE AND MORE
15 INVERTEBRATION RESOURCES ON THE SYSTEM.

16 **MR. WOODFIN:** YEAH.

17 **MR. RICKERSON:** SO IT'S NOT GONNA BE UNCOMMON TO HAVE 60%
18 PENETRATION, 70% PENETRATION, HIGH PENETRATIONS OF IBRS AND
19 THUNDERSTORMS WITH LIGHTNING STRIKES ROLLING THROUGH WEST TEXAS
20 RIGHT IN THE MIDDLE OF THEM.

21 AND SO WHAT WAS A RISK IN 2013 IS EVEN MORE OF A RISK TODAY, AND IT
22 WILL BE EVEN MORE OF A RISK GOING FORWARD.

23 WE'RE GONNA HAVE A LOT MORE IBRS AND HAVING A GOOD FIRM
24 STANDARD NOW PREVENTS THAT RISK GOING FORWARD.

1 **COMMISSIONER COBOS:** MM-HMM, , WELL, RELIABILITY IS
2 PARAMOUNT. THAT THAT'S REALLY, UM, ERCOT'S MISSION, IT'S OUR MISSION AS
3 WELL AT THE COMMISSION.

4 I THINK EVERYBODY, EVEN THE STAKEHOLDERS AND EVERYBODY WANTS
5 RELIABILITY.

6 UM, YOU KNOW, GETTING AN INDUSTRY TO, IN THE MARKET TO RISE UP TO
7 A STANDARD AS WE'VE DONE WITH WEATHERIZATION, RIGHT? 2011, WE HAD NO
8 STANDARD, UM, BEST PRACTICES DIDN'T WORK.

9 2021, UM, WITH A CATASTROPHIC WINTER STORM URI IMPACT, WE HAD
10 LEGISLATION WAS PASSED, MADE THOSE WEATHERIZATION STANDARDS
11 MANDATORY, BUT WE IMPLEMENTED THOSE WEATHERIZATION STANDARDS IN A
12 PHASED MANNER THAT ALLOWED THE MARKET AND THE INDUSTRY TO EVOLVE
13 AND RISE UP TO THAT STANDARD.

14 AND SO, UM, THAT'S REALLY I THINK HOW WE GET COMPLIANCE OVERALL.
15 AND, AND WE MAXIMIZE AND OPTIMIZE, UM, YOU KNOW, THE, THE ABILITY TO
16 MAINTAIN RELIABILITY WITH THOSE RISKS THAT, THAT WE IDENTIFY, WHETHER
17 IT'S COLD WEATHER OR, UM, YOU KNOW, THE INTERACTION OF, OF THESE, UM,
18 FACIL, SPECIFIC FACILITIES WITH, UM, YOU KNOW, VOLTAGE RIDE-THROUGH
19 AND ENSURING ALL THAT.

20 SO THAT'S JUST AN OBSERVATION.

21 UM, THE OTHER OBSERVATION THAT I WANTED TO HIGHLIGHT WAS THE
22 APPEALS AND EXEMPTION PROCESS.

23 UM, I DON'T KNOW WHAT THE RIGHT ANSWER IS, BUT, BUT IF WE CAN KIND
24 OF LOOK AT THIS FROM THE PERSPECTIVE OF, UM, THERE, I, I LOOKED AT THE
25 TAC APPROVED VERSION.

1 I LOOKED AT THE, UM, ERCOT, UM, RECENT COMMENTS AND THAT, YOU
2 KNOW, THERE'S, THERE'S A LOT OF REFERENCES TO ERCOT'S OPINION IN THE,
3 UM, IN THE RECENT ERCOT COMMENTS.

4 AND I, AND I DEFINITELY WANT ERCOT TO BE IN THE POSITION TO REVIEW
5 EXEMPTIONS AND EXTENSIONS.

6 AND, BUT I, I ALSO WANNA MAKE SURE THAT THERE'S NOT SOME LEVEL OF
7 SUBJECTIVITY, UM, IN THERE THAT WE, IF WE END UP WITH COMPLAINTS AT THE
8 COMMISSION, UM, CAN'T EXTRAPOLATE THE INFORMATION WE NEED TO REVIEW
9 WHY SOMETHING, YOU KNOW, WHY AN EXEMPTION OR EXTENSION WAS
10 REJECTED.

11 SO THERE'S GOTTA BE ENOUGH INFORMATION IN THERE, UM, THAT'S
12 OBJECTIVE EVIDENCE-BASED INFORMATION FOR US TO BE ABLE TO EVALUATE
13 ANY COMPLAINTS THAT COME TO US. AND ALSO, IT SEEMS LIKE IF WE MOVE IN
14 THE DIRECTION OF ERCOT COMMENTS AND YOUR RECOMMENDATIONS, WE'RE
15 GONNA END UP A LOT OF COMPLAINTS AT THE COMMISSION THAT ALLOW FOR
16 SOME KIND OF ADR PROCESS TO HAPPEN AT ERCOT SO THAT WE'RE NOT
17 SLAMMED WITH A BUNCH OF COMPLAINTS IN THE BACK END AND WE'RE NOT,
18 WE DON'T HAVE THE TECHNICAL EXPERTISE TO BE REVIEWING ALL OF THAT
19 INFORMATION...

20 **MR. RICKERSON:** RIGHT. YEAH...

21 **COMMISSIONER COBOS:** ...INTERNALLY.

22 **MR. RICKERSON:** YEAH. CAN I ADDRESS THAT?

23 **CHAIR FLEXON:** UM, DID YOU HAVE SOMETHING TO SAY, WOODY,
24 OR?

25 **MR. RICKERSON:** CAN I JUST RESPOND?

1 **CHAIR FLEXON:** YES, PLEASE.

2 **MR. RICKERSON:** YEAH. SO, YOU KNOW, THE VERSION THAT WE
3 PUT OUT THERE CLEARLY SAYS THAT ERCOT HAS TO ARTICULATE THE REASON
4 FOR DENYING EXEMPTION.

5 BUT I ALSO THINK THAT, UH, I'D LIKE TO GO BACK TO, UH, NEXTERA'S
6 PRESENTATION.

7 CAN WE, CAN WE GET THAT ONE UP THERE?

8 GO TO SLIDE NINE, BECAUSE I THINK THIS IS AN IMPORTANT PART THAT,
9 THAT DECISION MAKERS REALLY NEED TO, TO UNDERSTAND.

10 AND IT'S NOT EXACTLY APPARENT.

11 AND SO I, I WANT TO, UH, YEAH.

12 ONE BACK.

13 I THINK ONE BACK.

14 YEAH, THAT'S ONE.

15 YEAH.

16 SO THIS IS A GREAT SLIDE.

17 WE SHOULD ALL DO, ERCOT SHOULD HAVE DONE THIS.

18 WHEN YOU GET THESE COMPLEX ISSUES LIKE THIS, WE SHOULD HAVE A
19 FLOW CHART TO COMPARE WITH THIS SO THAT WE, WE CAN SHOW THE
20 DIFFERENT, UH, THE DIFFERENT PROCESSES AND WHAT WE'RE, WHAT'S BEING
21 PROPOSED AND COMPARE 'EM USING A FLOW CHART.

22 I REALLY LIKE VISUALS.

23 I THINK THIS KIND OF THING REALLY HELPS PEOPLE UNDERSTAND WHAT'S
24 GOING ON.

25 BUT I THINK THERE'S A PIECE MISSING FROM HERE TOO.

1 AND IF YOU SEE THAT WHITE BOX ON THE TOP RIGHT HAND SIDE THERE
2 THAT SAYS, UH, RESOURCE FILES AND EXTENSION OR EXEMPTION REQUEST BY
3 FEBRUARY, 2025. UNDERNEATH THAT, THERE'S THE YELLOW BOX THAT SAYS
4 THAT ERCOT GRANTS THE EXEMPTION. OR IF YOU GO OVER TO THE SIDE, IT SAYS
5 THAT, UH, ERCOT STAFF DENIES THE EXEMPTION.

6 WHAT'S LEFT OUT OF THIS, AND IT'S A KEY DIFFERENCE IN THE TWO
7 PRESENTATIONS, IS THAT ERCOT CAN ONLY DENY CERTAIN EXEMPTIONS.

8 SO IF THE RESOURCE OWNER HAS DONE EVERYTHING THAT THEY
9 DETERMINE IS COMMERCIALY REASONABLE, AND IF THEY MODEL THEIR, UH,
10 CAPABILITIES, IF THOSE TWO CRITERIA ARE MET, ERCOT CANNOT DENY THE
11 EXEMPTION.

12 AND THAT DECISION BOX IS NOT ON THAT FLOWCHART.

13 AND THAT'S AN IMPORTANT PART OF WHAT YOU'RE ASKING ABOUT
14 COMMISSIONER COBOS.

15 AND I THINK, UM, I THINK IT'S A SYMPTOM OF THE FACT THAT WE HAVEN'T
16 TALKED THROUGH ALL THIS LANGUAGE YET.

17 THAT MAY NOT EVEN HAVE BEEN THE INTENTION, THE WAY IT WAS
18 WRITTEN. BUT WHEN YOU READ THE LANGUAGE, THAT'S, THAT'S HOW WE
19 WOULD HAVE TO CARRY IT OUT.

20 AND SO MORE TIME TO WORK THOSE KINDS OF THINGS OUT.

21 CAUSE IT MAY NOT EVEN HAVE BEEN THE, UH, THE, THE, UH, THE
22 INTENTION, BUT THAT IS ACTUALLY HOW IT WOULD READ.

23 SO WE GET AN EXTENSION OR AN EXEMPTION REQUEST.

24 IF THEY'VE MET THE TWO CRITERIA, OUR HANDS ARE TIED, AND THAT'S
25 GONNA BE THE MAJORITY OF THOSE.

1 AND SO THOSE ARE THE KINDS OF THINGS WE NEED HAVE TO HAVE TIME TO
2 TAKE BACK TO TAC AND WORK THROUGH, BECAUSE THAT MAY NOT EVEN HAVE
3 BEEN THE, THE INTENTION THERE.

4 UM, BUT THAT'S THE WAY IT WOULD READ.

5 THAT'S THE WAY IT READS RIGHT NOW.

6 AND THAT'S THE WAY WE WOULD HAVE TO EXECUTE IT.

7 [1:21:28]

8 **MR. GOFF:** WE, WE CAN ANSWER THAT AS WELL, IF YOU'D LIKE US
9 TO.

10 **CHAIR FLEXON:** BEFORE I WRAP THIS UP, I GUESS, LINDA, YOU CAN
11 HAVE THE FINAL WORD.

12 **DIRECTOR CAPUANO:** SO, SO I WANTED TO COMMENT AND THANK
13 YOU FOR THE WAY YOU PHRASED IT, BECAUSE, UM, THERE WERE TWO OTHER
14 POINTS THAT DON'T GAIN MY SUPPORT AND I AGREE, I THINK THIS NEEDS TO BE
15 DISCUSSED SOME MORE.

16 SO FOR EXAMPLE, IN ORDER TO PREVENT THE FAILURES FROM THE PAST,
17 FROM RECURRING, WHICH IS WHAT YOU TALK ABOUT, WE NEED TO CHANGE
18 AND GRANDFATHERING IN DOESN'T CREATE THAT CHANGE.

19 AND I WOULD SAY AGREE THAT THAT NEEDS MORE DISCUSSION. WHAT
20 DOES THAT MEAN?

21 AND THEN THE SECOND ONE IS NOW ALLOWING AN OFFENDING ENTITY
22 TO GIVE ITSELF AUTOMATIC, UM, EXEMPTIONS.

23 AND THAT, AGAIN, IS THE WAY IT READS. CAUSE AS A BOARD MEMBER, I
24 WAS READING IT, NOT GOING THROUGH ALL THE DISCUSSIONS WITHOUT

1 LIMITATION DOES NOT MEET THE STANDARDS OF AN INDEPENDENT
2 DETERMINATION OF RELIABILITY IMPACT.

3 SO I'M AGREEING THAT THIS IS NOT A FINISHED DISCUSSION.

4 **CHAIR FLEXON:** YEAH, WELL SAID LINDA.

5 SO I LIKE TO PROPOSE THAT WE, WE IN FACT DO REMAN, REMAND THIS
6 BACK.

7 I DON'T THINK IT'S READY FOR APPROVAL IN ITS CURRENT STATE.

8 I'D LIKE TO SEE KIND OF LESS DAYLIGHT BETWEEN THE TWO POSITIONS
9 THAT ARE OUT THERE.

10 SO I'LL RAISE THIS, I MEAN, I'LL MAKE A PROPOSAL TO THE COMMITTEE
11 THAT WE REMAND THIS BACK, UH, TO TAC AND TO ERCOT AND MODIFY THE
12 LANGUAGE, UH, TO ADDRESS THESE RELIABILITY RISKS THAT, THAT EXIST.

13 AND I NEED A MOTION TO APPROVE THAT IF YOU'RE IN AGREEMENT,
14 CARLOS MOVES.

15 JULIE, COURTNEY ABSTAIN.

16 OKAY, SO WE HAVE HAD TWO, AND I APPROVE.

17 SO WE GOT THREE OUT OF THE FOUR APPROVALS, ONE BEING ABSTENTION,
18 SO THAT WE WILL SEND IT BACK TO REMAND BACK TO, UH, TO ERCOT TO WORK
19 WITH TAC.

20 **DIRECTOR FLORES:** BOB. IF I MAY, IF I CAN ADD A COMMENT TO
21 THIS, UM, IN TERMS OF THE CONTEXT OF COMMERCIAL, COMMERCIALY
22 REASONABLE, THE ECONOMIC COMPONENTS OF THAT NEED TO NOT ONLY TALK
23 ABOUT THE VALUE OF RELIABILITY, BUT THE COST OF FAILURE.

24 SO THE COST OF LOAD, SHE, THE COST OF BLACKOUT, THINGS LIKE THAT.

25 SO AS IT'S REMANDED BACK TO, TO TAC.

1 I THINK ERCOT AND TAC NEED TO WORK TOGETHER TO MAKE SURE THOSE
2 ECONOMICS ARE IN, AND THAT PARTIALLY ANSWERED LORI'S QUESTION AS AS
3 WELL, IF SOMETHING EVER GOES TO THE, TO THE PUC.

4 BUT WE ALWAYS TALK ABOUT RELIABILITY, BUT WE NEED TO START
5 TALKING ABOUT WHAT HAPPENS IF RELIABILITY FAILS.

6 **CHAIR FLEXON:** YEAH, I KNOW...

7 **DIRECTOR FLORES:** AND WHAT'S THE COST THAT.

8 **CHAIR FLEXON:** BECAUSE THEY'RE REAL.

9 THE COST RELIABILITY IS SIGNIFICANT.

10 **DIRECTOR FLORES:** YES, THANK YOU.

11 **CHAIR FLEXON:** OR IF ANY OTHER TYPE OF INVESTMENT.

12 **DIRECTOR HEEG:** JUST, JUST TO FURTHER ELABORATE ON ON OUR
13 THOUGHTS IS IT'S REMANDED BACK.

14 YEAH. I, THE WAY I READ THE LANGUAGE THAT'S BEEN PROPOSED IS THAT
15 IT'S A, IT'S A COMMERCIAL STANDARD FROM YOUR PERSPECTIVE. AND WE DO
16 NOT, ERCOT STAFF DOES NOT GET TO LOOK AT RELIABILITY SYSTEM WIDE.

17 AND THAT'S A CRITICAL PART IN MAKING THE DECISIONS. SO I ENCOURAGE
18 YOU TO LOOK AT THAT.

19 AND THEN JUST, LORI, I I CERTAINLY APPRECIATE THE CONCERNS ABOUT,
20 UH, BEING IN FIGHTS OVER AND OVER AGAIN.

21 I THINK IT'S A REAL CONCERN WITH, YOU KNOW, PEOPLE COMING IN AND
22 DOING EXTENSIONS, BUT IF THERE'S EVER A STANDARD THAT'S GONNA
23 GUARANTEE THAT IT'S A COMMERCIAL, COMMERCIAL STANDARD, UH, THERE'S
24 LIT, UH, STANDARDS ALWAYS IN COURTS, PEOPLE FIGHTING OVER WHAT IT
25 MEANS.

1 AND SO, UH, YOU'VE GOT, TO ME, YOU'VE GOTTA HAVE RELIABILITY TRUMP
2 EVERYTHING.

3 **COMMISSIONER GLOTFETY:** MR. CHAIRMAN.

4 **CHAIR FLEXON:** YEP.

5 **COMMISSIONER GLOTFETY:** UM, I, UH, APPRECIATE Y'ALL'S
6 DISCUSSION HERE.

7 I THINK IT'S, UH, YOU KNOW, WE'RE HERE AT THE TIP OF THE ICEBERG ON
8 WHAT THIS IS ACTUALLY GONNA LOOK LIKE IN, IN ERCOT.

9 UM, I, I HAVE ONE QUESTION FOR WOODY, IF YOU DON'T MIND ME ASKING,
10 UM, KIND OF AFTER THE FACT, AND THEN ONE FOR MAYBE DAN.

11 UM, BUT, UH, ON SLIDE THREE OF THE ERCOT RESPONSE, UH, THERE IS THE
12 MAP WHICH SHOWS THE, UH, WHERE THESE, UH, FAULTS HAPPENED, WHERE
13 THESE RESOURCES TRIPPED FROM THE SYSTEM.

14 AND WOODY, YOU AND I HAVE TALKED IN THE PAST, WHERE, WE'RE
15 TAKING, YOU ALL ARE TAKING EFFORTS AS WELL AS THE INDUSTRY TO UPGRADE
16 THE TRANSMISSION SYSTEM IN THE PERMIAN BASIN.

17 AND, UM, THAT'S WHERE MANY OF THESE FAULTS HAVE HAPPENED.

18 AND IT SHOWS THAT THE WEAKER THE SYSTEM, THE MORE LIKELY THESE
19 ARE TO HAPPEN.

20 SO THE QUESTION IS, WHEN YOU COME BACK, UM, COULD YOU AT LEAST
21 HAVE SOME DISCUSSION ABOUT HOW FUTURE UPGRADES, INCLUDING THE
22 SYNCHRONOUS CONDENSER ISSUE, MAY AFFECT, UH, THESE IBRS THAT ARE OUT
23 IN THAT AREA?

24 **MR. RICKERSON:** YES, SURE WILL.

1 SYNCHRONOUS CONDENSERS, NEW THERMAL GENERATION, NEW
2 TRANSMISSION LINES, ALL THOSE THINGS HAVE AN EFFECT.

3 THE TIME PERIOD TO GET 'EM IN IS PROBABLY A LITTLE LONGER THAN THE
4 TIME PERIOD TO INSTALL SOME SOFTWARE UPGRADES THOUGH, ON, ON
5 INVERTERS.

6 **COMMISSIONER GLOTFELTY:** AGREE WITH THAT.

7 AND THEN THE ONE OTHER QUESTION THAT I HAD FOR DAN, WHICH WAS I
8 THINK THE NEXT SLIDE, WHICH WAS, UM, ON THIS, THIS LIST OF RIDE THROUGH
9 EVENTS, UH, ESPECIALLY THE ONES WITH ERCOT, THEY'RE, CAN YOU FIND OUT,
10 OR DO YOU KNOW HOW MANY OF THOSE RIDE THROUGH EVENTS WERE AT
11 SINGLE FACILITIES OR IF THEY WERE LIKE THE ODESSA EVENT WHERE ONE UNIT
12 TRIPPED ANOTHER UNIT?

13 **MR. WOODFIN:** SO I DON'T KNOW THAT OFF THE TOP OF MY HEAD,
14 BUT WE HAVE THE LIST OF WHAT ALL PARTICIPATED.

15 I THINK IT WAS PART, MANY OF THEM WERE PARTS OF MULTIPLE UNITS
16 THAT DIDN'T RIDE THROUGH, BUT WE CAN LOOK AT IT AND MORE
17 COMPREHENSIVELY.

18 **COMMISSIONER GLOTFELTY:** OKAY. THANK YOU.

19 THANK YOU, MR. CHAIRMAN.

20 **MR. RICKERSON:** ONE OTHER, ONE OTHER THING TO ADD TO THAT
21 IS ALSO THAT, UH, INVERTEBRATE RESOURCES ARE BEING INSTALLED ACROSS
22 THE SYSTEM NOW. THEY'RE NOT JUST A WEST TEXAS PHENOMENON, EAST
23 TEXAS, SOLAR SOUTH TEXAS WIND, THEY'RE EVERY, THEY'RE, THEY'RE, THEY'RE
24 THROUGHOUT THE SYSTEM NOW.

25 AND SO THIS RISK IS, IS, IS IS NOT JUST A WEST TEXAS RISK NOW.

1 **COMMISSIONER GLOTFELTY:** BUT, BUT ISN'T IT TRUE THAT IF IT, IF
2 THEY ARE INTERCONNECTING AT THE SYSTEM WHERE THE SYSTEM IS
3 STRONGER, THE LIKELIHOOD OF A FAULT HAPPENING IS, I DON'T WANT TO SAY
4 LESS, BUT, UH, THAT THE A, UH, CASCADING OUTAGE IS, IS LESS OF A
5 LIKELIHOOD?

6 **MR. RICKERSON:** WELL, I THINK THE FAULT IS PROBABLY THE
7 SAME RISK.

8 THE EFFECT THE FAULT HAS ON THE GRID IS NOT AS SEVERE AND AS A
9 STRONGER GRID.

10 **COMMISSIONER GLOTFELTY:** RIGHT. OKAY.

11 **DIRECTOR ENGLAND:** CAN I JUST MAKE A CLARIFICATION? CAUSE
12 IF I GOT THIS WRONG, THEN I MISUNDERSTOOD THIS CONVERSATION. ON PAGE
13 SEVEN WITH YOUR PIE CHART, WHERE 80% OF IT IS GREEN, CAN WE TAKE AWAY
14 FROM THE CONVERSATION THAT EVERYBODY IN THE ROOM AGREES WITH THE
15 SOFTWARE UPGRADES AND WHAT WE'RE REALLY NOT AGREEING TO IS THE 20%...

16 [1:28:08]

17 **MR. GOFF:** YES.

18 **DIRECTOR ENGLAND:** ...HARDWARE ISSUES?

19 **MR. GOFF:** I. WOODY, I AGREE WITH THAT.

20 WE'RE TALKING ABOUT HARDWARE IMPACTS.

21 **DIRECTOR ENGLAND:** OKAY.

22 THANK YOU FOR CLARIFYING.

23 **MR. GOFF:** I'M SORRY TO...

24 **DIRECTOR ENGLAND:** AND I THINK IT'S IMPORTANT WHEN WE

1 HAVE DISAGREEMENTS, WE ALSO TALK ABOUT WHAT WE AGREE UPON GOING
2 FORWARD.

3 **MR. WOODFIN:** AND THAT'S WHY WE'RE, WE'RE GONNA BE SENDING
4 OUT THIS MARKET NOTICE THAT SAYS, PLEASE DON'T WAIT ON THIS ANY
5 FURTHER DISCUSSION OF THIS NOGRR, BUT GO AHEAD AND GET STARTED ON
6 IMPLEMENTING THOSE SOFTWARE UPGRADES AND, AND PARAMETER CHANGES.

7 **CHAIR FLEXON:** YEP.

8 **COMMISSIONER COBOS:** ONE FINAL COMMENT, JUST SO I CAN BE
9 CLEAR.

10 UM, YOU KNOW, I I, AND THAT, I THINK THAT'S A GREAT IDEA TO SEND OUT
11 THE MARKET NOTICE JUST ENCOURAGING COMPLIANCE WITH, WITH THE
12 STANDARD THAT'S UPCOMING.

13 IT'S IMPORTANT.

14 I MEAN, WE GOTTA MAINTAIN RELIABILITY.

15 WE HAVE A LOT OF IBR CAPACITY COMING INTO THE SYSTEM THAT POSES
16 DIFFERENT OPERATIONAL RELIABILITY RISKS, UM, IN A VARIETY OF WAYS.

17 I, I, I'M HEARING FROM THE STAKEHOLDERS THAT THEY'RE, YOU KNOW,
18 AGREEING THAT IT'S A CRITICAL ISSUE THAT NEEDS TO BE ADDRESSED, IS JUST
19 HOW WE GET THERE, UM, THAT MATTERS. AND, UM, ON THE TIMING AND ALL
20 THE DIFFERENT NUANCES THAT YOU GUYS WILL EVALUATE ON REMAND.

21 MY POINT EARLIER REALLY IS THAT, UM, AS WE WORK TOGETHER, ERCOT
22 STAKEHOLDERS THROUGH WHATEVER PROCESS ULTIMATELY GETS ADOPTED BY
23 THE BOARD, IS THAT, UM, THERE'S GOTTA BE ROOM FOR, AND I'M NOT SAYING
24 THE ERCOT PROPOSED PROCESS DOESN'T INCLUDE THIS, BUT I'M JUST

1 ENCOURAGING ERCOT, WHATEVER PROCESS ULTIMATELY GETS APPROVED FOR
2 ERCOT TO WORK WITH THE STAKEHOLDERS.

3 AND AS YOU APPLY YOUR RELIABILITY EXPERTISE TO THE SYSTEM AND,
4 AND TO LISTEN TO THE FEEDBACK OF THE STAKEHOLDERS THAT ARE
5 OPERATING THESE ASSETS AND, AND, UM, HAVE BEEN OBVIOUSLY WORKING ON
6 THE STANDARD THROUGH VARIOUS WORKING GROUPS AND DISCUSSIONS SO
7 THAT THERE'S COMMUNICATION, UM, TO ARRIVE AT THE TECHNICAL SOLUTIONS
8 THAT WE'RE GONNA NEED FOR THE STANDARD THAT WE ULTIMATELY ADOPT IN
9 ERCOT FOR THESE IBR CAPACITY.

10 AND THAT, THAT ALL GETS HASHED.

11 THE MAJORITY OF IT GETS HASHED OUT AT ERCOT SO THAT WE'RE NOT IN
12 THE BACK END HAVING TO SORT OF DEAL WITH A BUNCH OF COMPLAINTS THAT
13 ARE VERY TECHNICAL AND, AND, UM, WILL REQUIRE A LOT OF THIS IS A ERCOT
14 STAKEHOLDER ISSUE THAT NEEDS TO BE ADDRESSED.

15 IT'S TECHNICAL, IT'S RELIABILITY.

16 WE SHOULDN'T BE GETTING A LOT OF COMPLAINTS AT THE BACK END.

17 UM, IT'S EXPENSIVE FOR THE STAKEHOLDERS.

18 IT TAKES A LONG TIME.

19 IT SETS REGULATORY UNCERTAINTY FOR THEM.

20 Y'ALL WANT COMPLIANCE IN A REASONABLE AMOUNT OF TIME, SO YOU
21 HAVE RELIABILITY.

22 SO I JUST, FOR US IN THE BACKGROUND, UH, AT LEAST FROM MY
23 PERSPECTIVE, THAT'S, THAT'S WHAT I WOULD WANT TO SEE.

24 SO THAT'S IT.

25 THANK YOU.

1 **CHAIR FLEXON:** ALRIGHT. FINAL WORD, ERIC, FINAL WORD FOR
2 THE TIME.

3 [1:30:51]

4 **MR. GOFF:** UH, VERY BRIEF.

5 UM, I THINK IT'D BE HELPFUL IF Y'ALL WERE TO GIVE ADDITIONAL
6 DIRECTION TO TAC ON WHETHER OR NOT YOU WANT TAC TO BIFURCATE NEW
7 VERSUS EXISTING RESOURCES.

8 SO WE'RE, ALL OF OUR DISPUTE SO FAR HAS BEEN ABOUT EXISTING
9 RESOURCES AND TAC DID NOT BIFURCATE AT ERCOT'S REQUEST PREVIOUSLY.

10 WE, WE, I THINK IT'D BE HELPFUL TO KNOW IF YOU WANT US TO DO THAT.

11 **CHAIR FLEXON:** WELL, I JUST WANT, I MEAN, I THINK THE WHOLE
12 THING'S GOING BACK. TAC NEEDS TO WORK WITH ERCOT AND REMAND.

13 WE'RE GONNA REMAND THE WHOLE, THE ENTIRE, LET YOU GUYS WORK
14 OUT SINCE YOU'RE ALL THE EXPERTS.

15 **MR. GOFF:** OKAY.

16 **CHAIR FLEXON:** OKAY.

17 SO WITH THAT, I'M GONNA TRY TO ESCAPE TO AGENDA ITEM NUMBER FIVE.