

COLES COUNTY PLANNING & DEVELOPMENT COMMITTEE
SPECIAL USE PERMIT APPLICATION HEARING FOR
THE COMMERCIAL SOLAR ENERGY FACILITY
GLACIER MORaine, LLC, SUBMITTED BY THE
SHELBY COUNTY ENERGY CENTER AND
PREPARED BY EARTHRise ENERGY, PBLLC

August 26, 2025
5:00 p.m. - 9:00 p.m.

Hearing Facilitator:
Scott Kains

Counsel for Coles County:
Andrew Keyt
Alex Rives

Counsel for the Applicant:
Kyle Barry
Also Appearing for the Applicant:
Joseph Horn
Emre Ozmen

County Board Members:
Mike Clayton
Darrell Cox
John Doty
Tom Royal
Rick Shook
Michael Watts, Chairman
Bristole Zimmerman

Coles County Regional Planning:
Kelly Lockhart, Executive Director

Lydia G. Madlem, CSR, RPR
IL License No. 084.004988
Official Court Reporter
Coles County Courthouse
Charleston, IL 61920

I N D E X

WITNESSES

PAGE

JOSEPH HORN

Direct by Mr. Barry	6
Cross by Mr. Clayton	21
Cross by Mr. Cox	24
Cross by Mr. Watts	25
Cross by Mr. Royal	28
Cross by Mr. Shook	28
Cross by Mr. Sherman	33
Cross by Mr. Uphoff	39
Cross by Mr. Keyt	42
Examination by Mr. Kains	49
Cross by Mr. Watts	50
Cont'd Cross by Mr. Clayton	52
Cont'd Cross by Mr. Shook	52
Cont'd Cross by Mr. Royal	53
Cross by Ms. Zimmerman	53

DR. DAVID LOOMIS

Direct by Mr. Barry	56
Cross by Mr. Watts	60
Cross by Mr. Shook	60
Cross by Mr. Doty	63
Cross by Mr. Cox	66
Cross by Mr. Sherman	68
Cross by Mr. Keyt	71

WILL FISCHER

Direct by Mr. Barry	87
Cross by Mr. Cox	88
Cross by Mr. Clayton	92
Cross by Mr. Watts	98
Cross by Mr. Doty	100
Cross by Mr. Shook	101

TOM SHERMAN

Cross by Mr. Cox	104
Cross by Ms. Zimmerman	114
Cross by Mr. Keyt	113

E X H I B I T S

NUMBER	DESCRIPTION	PAGE
Applicant's Exhibit 1	Mr. Ozmen's PowerPoint	81
Applicant's Exhibit 2	Mr. Steffen's PowerPoint	82
Applicant's Exhibit 3	Mr. Horn's PowerPoint	82

1 MR. KAINS: Go ahead, Mr. Chairman.

2 (Pause.)

3 MR. WATTS: Good evening. Good evening. If I
4 could have your attention, please. You guys are supposed
5 to set an example, come on.

6 MR. OZMEN: You're right.

7 MR. WATTS: I'm going to reconvene this meeting
8 of the Coles County Planning and Development Committee to
9 continue the public hearing for the Glacier Moraine Solar
10 Energy Facility, prepared by Earthrise Energy.

11 So, if you'll all stand and join me in saying the
12 Pledge of Allegiance.

13 (Pledge of Allegiance.)

14 MR. WATTS: Thank you. For the roll call:
15 Mike Clayton?

16 MR. CLAYTON: I'm here.

17 MR. WATTS: Darrell Cox?

18 MR. COX: Present.

19 MR. WATTS: Jeremy Doughty?

20 Tad Freezeland?

21 And I'm Michael Watts, Chairman presiding.

22 And with the roll call taken, I'm gonna turn the
23 meeting over to our moderator, Mr. Scott Kains.

24 MR. KAINS: Thank you very much, Mr. Chairman.

1 Good evening, folks, and welcome back for night
2 two. It's my understanding that we're going to be
3 finishing the hearing tonight, so that's good news.

4 Last night, we heard testimony from two witnesses
5 for the Applicant, Mr. Ozmen and Mr. Steffen. And
6 tonight, we have two additional witnesses. We are
7 planning a third, but it's my understanding that there is
8 an agreement or stipulation between the Applicant and the
9 County regarding decommissioning, is it?

10 MR. BARRY: (Nods head.)

11 MR. KAINS: Okay, very good. We'll get to that
12 momentarily. Again, we will have witnesses testify and
13 there will be opportunities for questions just like we had
14 last night, and we'll go in that same order. And I will
15 call on groups of people to do the questioning in the
16 order that we've already established.

17 All right, any preliminary matters before we
18 begin with witnesses, Mr. Barry?

19 MR. BARRY: Not at this time.

20 MR. KAINS: Okay, very good. Mr. Keyt, Ms. Rives?

21 MR. KEYT: No, sir.

22 MR. KAINS: Okay, very good. All right,
23 Mr. Barry, you may call your next witness, please.

24 MR. BARRY: Thank you, Mr. Kains.

1 At this time, I'd like to call up to the stand
2 Joseph Horn.

3 (Pause.)

4 MR. KAINS: Good evening, sir.

5 MR. HORN: Hey, there.

6 (Witness sworn.)

7 MR. KAINS: Very good, thank you.

8 MR. BARRY: Good evening, Mr. Horn.

9 THE WITNESS: Good evening.

10 JOSEPH HORN,
11 called as a witness on behalf of the Applicant,
12 being first duly sworn,
13 was examined and testified as follows:

14 DIRECT EXAMINATION

15 BY MR. BARRY:

16 Q. Could you state your name for the record, please.

17 A. Joseph Horn, J-o-s-e-p-h, H-o-r-n.

18 Q. And you are -- are you employed?

19 A. I am an employee of Earthrise.

20 Q. What's your position at Earthrise?

21 A. Senior manager of engineering.

22 Q. Can you tell us a little bit about your
23 educational background?

24 A. I have a degree in civil engineering from Purdue

1 University and a minor in land surveying.

2 Q. And what kind of experience do you have in the
3 renewable industry?

4 A. Before working with Earthrise, I have spent my
5 career working the construction side of renewables
6 projects, building over 20 solar projects across the U.S.,
7 the general contractor side and managing engineering
8 there, before coming over to Earthrise.

9 Q. And have you testified at any previous hearings
10 like this one?

11 A. Yes.

12 Q. Approximately how many?

13 A. About a dozen.

14 Q. And how many of those were in Illinois?

15 A. Eleven.

16 MR. BARRY: Thank you. So at this time,
17 Mr. Kains, I'd like to request certification of this
18 witness as an expert in the renewable engineering space.

19 MR. KAINS: Very good. Mr. Keyt, Ms. Rives, any
20 objection -- or any questions, first of all?

21 MR. KEYT: No questions.

22 MR. KAINS: All right. Any objection to this
23 gentleman testifying as an expert witness?

24 MR. KEYT: No objection.

1 MR. KAINS: Yeah, I find that Mr. Horn, based
2 upon his education, his experience, does qualify as an
3 expert witness. He will be treated accordingly and,
4 therefore, he will have 30 minutes to present his direct
5 testimony.

6 So, go right ahead.

7 MR. BARRY: Thank you.

8 BY MR. BARRY:

9 Q. Mr. Horn, what is your connection to the project
10 that is the subject of this application?

11 A. I'm the engineering manager for Glacier Moraine
12 Solar.

13 Q. Okay and I understand you have some slides you'd
14 like to talk about with us as well?

15 A. That's correct.

16 Q. Okay.

17 A. Okay, so thank you for the time today to present
18 here. As stated, I'm the engineering manager for Glacier
19 Moraine Solar, with Earthrise. We're gonna discuss the
20 initial -- some of the main components that are gonna go
21 into this project and then the timeline of construction,
22 and then also talk about the operations and the technical
23 side of decommissioning as well.

24 So, next slide.

1 So, first, we're gonna discuss the three most
2 critical components in the project, beginning with the
3 modules or solar panels. So, this project will utilize
4 crystalline silicon bifacial panels. What the bifacial
5 means is that these absorb sunlight both from the front
6 directly from the sun but also light that reflects off the
7 ground from behind, which increases their efficiency by
8 about 10 to 15 percent.

9 The crystalline silicon is the material for the
10 solar cell. This is a solid and inert material, it's
11 nontoxic. So, unlike some other kinds of panels, there's
12 no concerns about any sort of hazardous liquids leaking
13 into the soil. The other main materials involved in these
14 are the aluminum frames and then the glass surfacing on
15 them, which also are solid and inert materials.

16 They're built to withstand extreme weather
17 conditions like wind and hail as well, but we'll go into
18 more detail there on the O&M side of things.

19 Next slide.

20 Next, we have the trackers. So, this project
21 will utilize a single-axis tracker. The tracker is what
22 holds and rotates the panels towards the sun throughout
23 the day going from east to west. The trackers are
24 attached to the ground using pile foundations, which are

1 basically steel I-beams driven directly into the soil,
2 where the friction between the soil and those I-beams are
3 what keeps them in there.

4 So, I know earlier a question of would they have
5 cement or concrete foundations was asked -- no. The
6 general case here is they are driven directly into the
7 ground. And then, upon decommissioning, are also pulled
8 right back out.

9 Besides small amounts of zinc added for corrosion
10 resistance, all the materials of the piles and tracker are
11 steel that we anticipate being sourced all domestically
12 within the U.S.

13 And then we have the inverters. So, the
14 inverters are what convert the direct current generated by
15 the solar panels into alternating current that then can be
16 sent over longer distances back to the project substation.
17 Within the 120 acres that are being discussed here,
18 there's gonna be four inverters. They're also mounted on
19 pile foundations similar to the trackers and are all
20 placed at least 150 feet with -- inside the arrays in the
21 project. And I don't know if I mentioned it, but they are
22 the size of about a half shipping container.

23 Next slide.

24 Okay. Now, we're gonna talk about the phases of

1 construction. So, the initial work starts with site's
2 civil works. So, this is the interior access road
3 construction, any grading that's necessary, though this
4 project is utilizing a terrain-following tracker that will
5 minimize the amount of grading necessary on this land, any
6 temporary storm water basins, as necessitated by the storm
7 water management designs and Storm Water Management
8 Pollution Prevention Permit at the State level.

9 And once the civil works are done, then the pile
10 foundations for the inverters and trackers are installed.
11 And this is just, again, cruise driving steel I-beams
12 vertically into the ground.

13 Once the piles are installed and aligned, then
14 the tracker is mounted to the top of them, and then the
15 panels are mounted to the top of that tracker. Once those
16 panels are in, then wiring is run along the length of the
17 panels along the rows, then into the ground where it's
18 trenched to the inverters. And the inverters are set at
19 this phase at well.

20 Once that electrical installation is complete,
21 then the site is commissioned. This is the initial
22 start-up and testing of the project to verify that it's
23 running as intended. This also is when any remaining
24 construction material is removed from site and final

1 vegetation is established on any bare areas.

2 With the commissioning complete, then the site
3 transitions to the operations and maintenance phase of its
4 life.

5 Next slide.

6 So, the site is monitored and controlled using
7 something called a SCADA system, and this essentially
8 looks at the output of the project across the various
9 inverters and also the trackers' performance and rotation
10 to -- to see if there's any areas that are -- are
11 functioning anomalously. And if that's the case, then we
12 will send a crew out from our local facility because the
13 site will be run from our existing Shelby County natural
14 gas peaker plant, where we'll just add more people and
15 infrastructure there to support this. But they'll send
16 people out if needed and also for routine inspections from
17 there.

18 I also want to talk about a particular aspect of
19 the SCADA system, which is the weather stow mode. So,
20 across the site, there will be several meteorological
21 stations that are looking at wind and looking at
22 precipitation. And this will also be integrated with,
23 basically, subscriptions to larger weather networks,
24 airports, and such in the area. And what this is looking

1 for, essentially, is wind and hail events. Where in the
2 event of a high wind or hail event, then the -- the
3 tracker system will automatically rotate those panels at
4 an angle to deflect or minimize the impact of that.

5 This is a -- a relatively new addition to the
6 solar world, but it does a great job at basically
7 mitigating the impact that we see from those events. The
8 insurance companies love it as well, and we absolutely
9 plan on having that here for this project.

10 During the O&M phase of the project, it's going
11 to be a -- a very quiet and low-impact neighbor. So,
12 besides periodic landscaping crews coming out for
13 vegetation maintenance to ensure that the vegetation
14 within the arrays doesn't get too high and just the
15 regular inspections. There will be very little traffic.
16 As discussed previously in the sound study, we're within,
17 you know, all -- all applicable noise pollution controls
18 for the project. And it will be a -- a very quiet
19 neighbor to have.

20 Next slide.

21 And then, finally, we'll discuss decommissioning
22 here on the technical side of it. So, once the project
23 ends its O&M lifespan, it gets decommissioned. Now, as
24 discussed previously, the AIMA goes into this in great

1 detail, both about the financing of it, but also the
2 technical aspects of what gets decommissioned and what
3 gets removed and how things are removed.

4 So, the AIMA, unless explicitly with particular
5 landowner agreements with the AIMA, basically all the
6 cables that we have in the ground above five feet have to
7 be removed. Earthrise's general philosophy is unless a
8 landowner says, "We want to keep the cables in the
9 ground," we plan on removing everything. All the piles
10 are removed, all the trackers are removed, all the
11 modules, all the inverters, and everything gets taken
12 offsite and disposed of, recycled, reused.

13 We also have to return the soil to its
14 agricultural state so that the -- the people who we have
15 our leases from, when this reverts back to them at the end
16 of the project lifespan that they can farm it that first
17 year. So, what that consists of is decompacting any
18 heavily-trafficked areas. I believe 18 inches is what we
19 have to till this to per AIMA requirements at the end of
20 work in this area. And then, also, we need to reestablish
21 topsoil on any bare areas that get exposed during the
22 decommissioning process. And then, in conjunction and
23 coordination with these individual landowners, we most
24 likely will be planting an annual cover crop of some sort,

1 depending on when the project is decommissioned to ensure
2 that there's adequate coverage until the next growing
3 season when they can come in and till that up and plant
4 their first crop again.

5 That's all I have here. Thank you for your time.

6 Q. Not so fast, Mr. Horn. I have a few follow-up
7 questions. The first question is -- relates to the
8 construction's timeline slide. There is a discussion
9 about the pilings, I believe. Piles driven into the
10 ground support the solar panels, is that correct?

11 A. Yes.

12 Q. Is concrete used for those piles?

13 A. Concrete is not used for those piles unless there
14 were to be a particularly soft area that's unforeseen and
15 an individual pile needs to be remediated. We've done
16 geotechnical analyses on this project already, and we have
17 not seen any conditions that concern us.

18 Q. Is -- will concrete otherwise be deployed in
19 parts of the project?

20 A. The only areas within these parcels that concrete
21 will be used is the corner posts for the perimeter fence
22 and the gate posts.

23 Q. Okay. There was some questions about the AIMA
24 and it's -- who it covers. Can you elaborate on -- on any

1 those of questions that were raised by -- in other words,
2 I think it was some concerns about land -- participating
3 landowners versus nonparticipating landowners. Can you
4 elaborate on that?

5 A. Yep. So, we enter into individual AIMA
6 agreements between Earthrise and each parcel owner or
7 landowner. However, there also is the -- the broad
8 project AIMA at the State level. And as part of that and
9 part of our general storm water management, throughout the
10 design and construction and then operation of this
11 project, Earthrise has to ensure that we're not increasing
12 the runoff onto neighboring nonparticipant parcels.

13 So, we do a pre-construction, pre-design, and
14 hydrology study that's an input in the design, and in
15 conjunction with drain tile surveys, that's what that's
16 basically looking at flowing on and off of the parcels
17 that we're building on. And then, that gets factored into
18 the design project. And at the end of the design, another
19 hydrology is done based on the -- the final, you know,
20 field survey done post-construction to ensure that we're
21 not increasing the grade in such a way that's causing more
22 significant runoff onto those neighboring lands.

23 Q. And are you familiar with what -- what mutual
24 drains are?

1 A. Yes.

2 Q. And so, to the extent that mutual drains -- well,
3 can you tell me what they are?

4 A. Yeah, so if -- if there's a drain system that's
5 shared between multiple landowners, feeding one into the
6 other, in this case, between a participant and a
7 nonparticipant, that -- that is another area where we look
8 at to make sure that we are not sub-surface-wise adding
9 more drainage into a neighboring landowner.

10 Q. And to the extent that the AIMA and our
11 participating landowners who have the -- covers a mutual
12 drain, would that not also cover that mutual drain on the
13 neighboring property?

14 A. Yes, it would.

15 Q. All right, speaking of drain tile, there was a
16 discussion about drain tile avoidance and mitigation, do
17 you remember that?

18 A. Yes.

19 Q. And can you elaborate on that discussion?

20 A. Yep. So, we work on tiled parcels a lot. We do
21 preliminary surveys and discuss with the landowners to
22 locate any tiles that are on their property. And either
23 we avoid those areas, and when that's not possible, then
24 what we'll do is, okay, we'll look at the drainage and see

1 where can we reroute this drain tile that's in that
2 property to avoid impacting that sub-surface drainage.
3 And even then, you're gonna have situations where during
4 construction -- maybe there's some very old tile that's
5 not identified in a preliminary survey, but you do -- you
6 do as you're working, and even in those cases, then, okay,
7 we're gonna locate where this tile is, we're gonna map it
8 out in the field, and, again, then look at what kind of
9 rerouting we can do or replacement to ensure that adequate
10 drainage remains.

11 Q. Shifting from drain tile but staying with the
12 construction theme, Mr. Horn, what happens if during
13 construction, a threatened or endangered species is
14 encountered?

15 A. Yep, so in the event that we have the -- a field
16 crew that identifies, you know, a nesting site for a -- a
17 bird that's protected or whatnot, we'll have an unforeseen
18 circumstance plan basically created by our environmental
19 consultants in conjunction with our general contractor to
20 create a procedure for how we respond to that. But what
21 it basically boils down to is if there is a -- an
22 endangered or threatened or protected bird or other animal
23 nesting on the site, we avoid that area for the duration
24 of the -- of the nesting season until that is out of

1 there. Basically, it's a temporary hold on an area with a
2 specific setback. And then, you know, once that animal is
3 gone, the nesting season has ended, then we will return to
4 work in that area.

5 Q. Thank you. Shifting to screening and fencing, is
6 the Applicant prepared to submit a screening plan to the
7 County?

8 A. Yes.

9 Q. All right, there was a discussion last night
10 about the -- a gap between the bottom of the fence and the
11 distance of that gap. I believe that was in connection
12 with an IDNR recommendation. Do you recall that?

13 A. Yes.

14 Q. Do -- do you want to address the -- the gap?

15 A. Yep. Yeah, I just want to clarify, there is a --
16 so, this project will be using an IDNR-recommended game
17 fence, just the perimeter fence for the project, and built
18 into that is a six-inch gap at the bottom of the fence
19 that allows small game to pass in and out of the project
20 perimeter without being harmed.

21 Q. Thank you. And so, in terms of the vegetative
22 management plan, I think there was some -- there was some
23 questions raised about pollinator's scorecard or
24 compliance with the Illinois State statute. So, what

1 happens if, for some reason, the project isn't -- doesn't
2 score properly?

3 A. Yep. So, I -- I do share Mr. Steffen's
4 confidence that we will achieve that threshold. But if we
5 didn't and, for whatever reason, pollination is not -- not
6 a concern that we're factoring into our -- our vegetation
7 management plan, basically what we would go for then is a
8 native or naturalized species of grasses that are
9 low-growth to avoid having them grow too fast, become a
10 high maintenance thing, you know, potentially shade out
11 the bottoms of the panels.

12 Q. Thank you. Do you know how many inverters are
13 planned for the three parcels that are the subject of this
14 application?

15 A. Four.

16 MR. BARRY: And I think that's all the questions
17 I have for this witness at this time, Mr. Kains.

18 MR. KAINS: All right, very good. Thank you,
19 Mr. Barry.

20 Mr. Horn, thank you for your testimony. Time for
21 questions for Mr. Horn regarding his testimony, first
22 members of the Planning and Development Committee.

23 MR. CLAYTON: I have some.

24 MR. WATTS: Go ahead.

1 MR. KAINS: All right, Mr. Clayton?

2 CROSS-EXAMINATION

3 BY MR. CLAYTON:

4 Q. The pilings, how deep are you putting them in the
5 ground?

6 A. Seven to nine feet is the general range.

7 Q. And how will you know if you have driven a piling
8 into a drain line?

9 A. So, that's a good question. Repeated monitoring
10 of the site by the O&M crews, by the construction crews
11 before the project -- project is complete, looking for
12 areas with pooling water. It -- it's worth mentioning
13 that, you know, farmers, you want your tile intact, so you
14 properly drain the site so you can grow crops. As stated
15 earlier, these are steel piles in the ground, and if
16 they're perpetually wet and corrosion and rust becomes a
17 concern and it shortens the lifespan of this system, so we
18 also are very incentivized to make sure that we maintain
19 adequate drainage of this project throughout its lifespan.

20 Q. So, if you come along and you found that you have
21 pierced a drain line, how are you going to fix it? Are
22 you going to take the --

23 A. Hydrovac it out.

24 Q. Hydrovac it? And --

1 A. Yeah.

2 Q. -- and then --

3 A. And then, depending, you know --

4 Q. (Speaking simultaneously.)

5 A. -- we can go and look and see, yeah, depending on
6 the nature of the damage. If it's a relatively light
7 damage, leave it. If it's a bigger area that's impacted,
8 potentially bypass it with a new tile installation around
9 that area.

10 Q. So, you wouldn't even have -- have to move a
11 whole line of your -- your solar panels just --

12 A. No.

13 Q. Okay. When you were talking about the inverts --
14 inverters, I didn't hear any -- hear you say anything
15 about hazardous materials.

16 A. Yes, no. So, the inverters, they -- they don't
17 have hazardous materials. Copper, aluminum, steel are the
18 main components. There is oil in them, insulating oil
19 from an electrical standpoint. More and more common these
20 days is, essentially, vegetable oil because it's
21 biologically inert and that's what we're anticipating
22 using here, but even if we don't, the inverters have their
23 secondary containment built in there so that, in the event
24 of a spill, it is all captured within that area.

1 Q. Now, you said you weren't using concrete except
2 for two places, surely you're using concrete under these
3 inverter buildings?

4 A. No, they are -- they're pile-mounted.

5 Q. Oh, really?

6 A. Yeah, they'll be on generally ten pile
7 foundations a piece, they will be on a gravel pad above
8 that, but we are not pouring concrete foundations for
9 them.

10 Q. Okay.

11 A. That makes working under them much more
12 difficult.

13 Q. Can you tell me if -- if you have this inverter
14 inside this inverter building, can you hear the inverters
15 with the door closed on the outside?

16 A. It -- I wouldn't say it's -- it's enclosed in
17 a -- in a building. But if you were standing absolutely,
18 you know, right next to it, yes, you could. It sounds
19 like an air conditioner unit running. But we, you know,
20 we place these all within the interior of the arrays, not
21 on the edges, to ensure that once you get to the -- the
22 edge of the arrays, you get to the perimeter fence, you
23 cannot hear them.

24 Q. I don't know if you're the person to ask this

1 question because in some of the other things that we have
2 been presented, there was a thing that said 30 and
3 50 years. Are you guys considering -- it seems funny that
4 you would abandon it, something like this, in 30 years
5 because it should still be viable. So, are you talking
6 about restructuring leases or have you already committed
7 to some of that?

8 A. I do not know the -- the lease term --

9 Q. I just wondered if it would be somebody else.

10 A. -- off the top of my head. I -- I believe
11 50 years is the -- the span that we are expecting this
12 project to last for.

13 MR. CLAYTON: Okay, that's all my questions.
14 Thank you.

15 THE WITNESS: Thank you.

16 MR. KAINS: Very good. Thank you for your
17 questions, Mr. Clayton.

18 Anybody else from the committee?

19 MR. COX: I have one question.

20 MR. KAINS: Mr. Cox?

21 CROSS-EXAMINATION

22 BY MR. COX:

23 Q. I've read recently about kill switches in solar
24 panels, can you address that?

1 A. Yeah, so from what I'm familiar with, it's not
2 the panels, it's the inverters actually that have them.
3 And this is a very real issue. A bunch of Chinese
4 inverters, they had remotely-operated kill switches. We
5 are not using Chinese inverters for a variety of reasons,
6 that being one of them. So, that's how we plan to avoid
7 that.

8 MR. COX: Thank you.

9 MR. KAINS: Mr. Chairman, do you have any?

10 MR. WATTS: Yes.

11 CROSS-EXAMINATION

12 BY MR. WATTS:

13 Q. First is with panels, there's like a warranty
14 time --

15 A. Yes.

16 Q. -- frame with those. I'm just curious to know
17 how the warranty length time span correlates to the
18 funding in the surety bond, is there any correlation
19 there?

20 A. I -- I can speak on the -- the panel warranty.
21 I'm not as familiar with the -- the surety bond. The
22 panels have a power production warranty, as well as a
23 manufacturing warranty, to ensure that over the length of
24 their -- their lifespan that they're hitting certain

1 outputs, and that's 25 to 30 years. And the degradation
2 over that time is only 13 percent. So, basically the
3 guarantee is that in 25 or 30 years, if the panel was
4 initially producing 100 watts of power, it's now dropping
5 to 87, 86. And I believe the bond that we had for the
6 project is -- kicks in within 11 years.

7 Q. Yeah, that's --

8 A. So, yeah, this -- the warranty period is longer
9 than that.

10 Q. Okay, that's good. Also, I was at another
11 hearing where there was discussion about monitoring
12 drainage that goes from the site to adjacent sites.

13 A. Yes.

14 Q. You had mentioned that that, I think, earlier in
15 this...

16 A. So -- so, yeah, it -- we do hydrology surveys,
17 you know, before any work is done, pre -- pre-conditioned
18 pre-construction hydrology survey. And then, we do these
19 surveys again at the end of the -- at the end of
20 construction based on like the as-built survey,
21 essentially. The site will be resurveyed based on the
22 final grade that's established, which again, we don't
23 expect it be that different at all than the preliminary
24 grade, but to see and confirm that the -- the overall

1 drainage and outflows of the project have not changed.

2 As far as, you know, following up on that, like,
3 surveys after that, that is not something that is, you
4 know, currently in the scope that we're anticipating. But
5 if there were, you know, concerns raised about, you know,
6 three years down the road, we could absolutely get another
7 hydrology survey done to see if there's been any
8 additional impacts at a later date.

9 Q. Do you know if Earthrise has ever had to address
10 any such drainage issues?

11 A. We have not.

12 Q. Okay. And then I'm also curious about, you know,
13 I'm -- we talked about how the construction process works
14 and the decommissioning works, for construction phase,
15 there are access roads. Are those just compacted areas,
16 they're not paved?

17 A. Yeah, they're not -- they're not paved, it's --
18 it's gravel. Compacted subgrade with gravel on top.

19 Q. And then that's removed?

20 A. That's removed, yes, unless a landowner wanted to
21 keep it as their own access road, which we -- we see
22 landowners request, you know, "Hey, this road you built
23 seems pretty durable, we'd like you to leave it in
24 place --"

1 Q. Right.

2 A. "-- after."

3 MR. WATTS: Okay, all right. I think that's all
4 I have.

5 MR. KAINS: Thank you, Mr. Chairman, for your
6 questions.

7 County Board? Mr. Royal?

8 CROSS-EXAMINATION

9 BY MR. ROYAL:

10 Q. You said the panels are assembled in the U.S.?

11 A. I said that the steel is, for the trackers, and
12 the piles are domestically-sourced. We do not yet have a
13 contract for the securing of the solar panels, so I can't
14 commit to that. I can say they will not come from China.
15 And then referencing our two projects in McLean and Ford
16 Counties right now that, you know, have panels that are
17 being delivered currently, those were assembled in the
18 U.S., they came from Alabama.

19 MR. KAINS: Okay, Mr. Shook?

20 MR. SHOOK: Thank you. My name is Rick Shook.
21 I'm from Mattoon. County Board member. District 8.

22 CROSS-EXAMINATION

23 BY MR. SHOOK:

24 Q. You talked about just a second ago about the

1 gravel.

2 A. Yes.

3 Q. Would you guys gonna be putting down gravel or
4 white rock?

5 A. I'm not --

6 Q. Gravel is a round circle, it's hard, and -- and
7 white rock is chalky.

8 A. It will be white rock.

9 Q. White rock?

10 A. It -- it will be a -- these aren't public roads,
11 but it will be very similar to the IDOT crushed-line base.

12 Q. Okay. I don't know if you're the person to ask
13 this question to, but the folks that are getting the
14 panels, their neighbors next to them, are they getting
15 financial assistance on this?

16 A. I am --

17 Q. Like -- like for example, the wind turbines, it
18 was -- it was a friend -- it was called a helping a friend
19 or something --

20 A. Yeah.

21 Q. -- like that.

22 A. I can't speak to a particular program like that.
23 I know Earthrise does try to have good neighbor agreements
24 with nonparticipants adjacent. That is something that we

1 absolutely are open to. As far as this particular
2 project, I believe we do have it with the -- the closest
3 residence to it.

4 Q. So, the next-door neighbors are getting financial
5 money, then?

6 A. I -- I believe what -- what was stated yesterday
7 is that we are actually purchasing that neighboring
8 residence to these -- to these parcels.

9 Q. Okay. The panels, when the sun is beating down
10 on them, how hot do they get?

11 A. They --

12 Q. You can't put your hand on them, can you?

13 A. No, you can. They -- these don't get much hotter
14 than ambient air temperatures. Out west, that's more of
15 an issue when panels are over just bare ground, but these
16 will be over established vegetation, which basically
17 offsets --

18 Q. It cools it down, maybe?

19 A. Yeah, because that vegetation is evaporating
20 water as well. So, there's not a significant temperature
21 difference in the surrounding area.

22 Q. So, you can put your hand on these?

23 A. Yes.

24 MR. SHOOK: Huh. Okay, thank you.

1 MR. KAINS: Thank you, Mr. Shook.

2 Anything else from County Board members?

3 Questions from members of units of local
4 government, including school districts?

5 I see five or six new faces who weren't here last
6 night. Any of y'all licensed attorneys in the State of
7 Illinois? Then we can skip over that.

8 Members of the public, folks who are either
9 opposed to the project or neutral on the project, with
10 questions for Mr. Horn?

11 Mr. Shaffer, come on up.

12 MR. SHERMAN: Me?

13 MR. KAINS: Yes.

14 AUDIENCE MEMBERS: Sherman.

15 MR. KAINS: Sherman. Doggone it, I had it right
16 last night and I messed it up tonight.

17 MR. SHERMAN: You got it right earlier, so.
18 Thank you.

19 MR. KAINS: Let's go off the record for just a
20 minute.

21 (Discussion off the record.)

22 MR. KAINS: We can go back on the record now.

23 MR. SHOOK: Well, that's the first time that
24 you've missed a name. I'm...

1 MR. SHERMAN: Well, he's missed mine several
2 times, so.

3 MR. KAINS: I know, I missed -- I missed
4 Mr. Sherman all the time and...

5 MR. SHERMAN: That's okay.

6 MR. KAINS: I'm trying...

7 MR. SHERMAN: Call me whatever you want, just
8 don't call me late for supper, that's...

9 MR. KAINS: There you go. I think I have most
10 everybody -- if I know your name, I probably have it
11 somewhere in here. But I also take really good notes,
12 Mr. Shook. I have -- I have notes about you in here all
13 over.

14 (Audience members laughing.)

15 MR. SHOOK: I'm sure you do.

16 MR. SHERMAN: And that's in the record now,
17 right?

18 MR. KAINS: It certainly is. But it's all good.

19 All right, questions. Mr. Sherman, you are a
20 Coles County resident.

21 MR. SHERMAN: Yes.

22 MR. KAINS: You have ten minutes for
23 cross-examination of this witness. And, again, I will
24 stop the stopwatch if there is an objection or if I

1 interject something, because we want to make sure that you
2 get your whole ten minutes.

3 So, you may go ahead with questions --

4 MR. SHERMAN: All right.

5 MR. KAINS: -- for Mr. Horn, please.

6 MR. SHERMAN: Thank you.

7 CROSS-EXAMINATION

8 BY MR. SHERMAN:

9 Q. Mr. Horn, are you -- I know you went over your --
10 your background. Are you the project manager for this?

11 A. I am not the project manager, no.

12 Q. Is the project manager going to be testifying
13 tonight?

14 A. No.

15 Q. No?

16 A. So -- no.

17 Q. Okay. Okay.

18 MR. KAINS: I'm going to interrupt. Who's the
19 project manager?

20 THE WITNESS: So, the -- at least in Earthrise,
21 the project manager is more active during the construction
22 phase. So, right now with the project in development,
23 it's handled between myself, the engineering manager, and
24 Emre, the development manager.

1 MR. KAINS: Okay, Mr. Ozmen is the development
2 manager, which to me, seems like he's -- he's the guy and
3 we've already heard from him. So, all right, I'll be
4 quiet, and you go ahead, Mr. Sherman.

5 BY MR. SHERMAN:

6 Q. Okay. I'm not sure who to ask some of these
7 questions to, then. The first thing was, you talked about
8 when Mr. Royal asked the question about where are the
9 panels and different things made. Where are the panel --
10 or what kind of panels will be used?

11 A. Yep, crystalline silicon bifacial panels.

12 Q. Is there a company that does that? I know in
13 that -- the ordinance, it's stipulated that we -- it needs
14 to be addressed of what those are. Has there been a
15 company established that is going to be making these
16 crystallines?

17 A. There -- there are many companies that make it.
18 We have not entered into a contract with a particular
19 company to secure panels for this project yet.

20 Q. And is it safe to say that all of those panels
21 that you might enter into a contract with will be U.S.
22 domestic companies?

23 A. As far as where the companies themselves are
24 located, I don't think I can speak on that, no, not at

1 this point.

2 Q. So, there's no guarantee that the panels will be
3 made in the United States?

4 A. No.

5 Q. Okay. The piling you said is seven to nine feet
6 deep?

7 A. Correct.

8 Q. And how many of those roughly will there be in
9 the Coles County part of it?

10 A. I -- I don't know the -- I don't have a -- a full
11 quantity off the top of my head.

12 Q. Okay. And on our slide presentation with the
13 construction phases, you -- you list in there that it's 18
14 to 20 months from start to finish?

15 A. Yes.

16 Q. Does that also take into account if you run
17 across a migration or breeding of any kind of wildlife
18 that you stop, wait a couple weeks, and then start again,
19 is that encompassed?

20 A. That -- that would factor in there.

21 Q. Okay.

22 A. That -- that includes mobilization through
23 project commissioning, so that's -- that's on the longer
24 end of the time frame for this.

1 Q. Okay. But that is figured into the 18 to 20?

2 A. Correct.

3 Q. Okay, very good.

4 A. And that -- that 18 to 20 is for the full Glacier
5 Moraine Project. Within these few specific parcels, it
6 will be quicker than that.

7 Q. Okay, so the Coles County part might take less
8 than the 18 to 20 months?

9 A. Correct.

10 Q. All right. The decommissioning part, in -- in
11 Appendix N, there is no mention at all of Coles County.
12 Can you say -- can you address that?

13 A. I can say that we have a decommissioning plan
14 that gets updated with our -- our final IFC drawings that
15 will absolutely cover the entirety of the project from
16 Cumberland County, Coles County, and the City of Mattoon.

17 Q. But per the -- the -- the County ordinance, it
18 stipulates there should be a decommissioning plan. Where
19 in your 800-and-some page application is the specific
20 decommissioning plan for Coles County?

21 A. The -- the decommissioning plan that was
22 submitted in the document covers the entirety of the
23 project, including Coles County.

24 Q. Even though Appendix N specifically addresses

1 Cumberland County, it does not mention Coles at all?

2 A. We don't anticipate any changes in how the
3 project is decommissioned for Cumberland County versus
4 Coles.

5 Q. So, there's nothing specific for Coles County?

6 A. The procedures that are applicable for Cumberland
7 are applicable for Coles.

8 Q. So, there's nothing specific for Coles County?

9 MR. BARRY: Asked and answered.

10 THE WITNESS: I feel like I've answered that.

11 BY MR. SHERMAN:

12 Q. Okay. Couple other questions. I'm not sure if
13 you're the one to answer this or not: Do you do
14 background checks on the employees, either -- either your
15 own employees or the subcontractors?

16 A. I am not in HR, I do not know the answer to that.

17 Q. Who would answer that?

18 A. I don't -- I -- I do not have the answer to that.

19 Q. Will there be someone this evening that will
20 answer that?

21 A. I don't believe so.

22 Q. How about drug testing?

23 A. Yes.

24 Q. You do drug testing for the employees?

1 A. There -- the general contractor will do random
2 drug testing in compliance with union requirements.

3 Q. And will that also be accounted for with the
4 subcontractors as well?

5 A. I believe all -- all site-on labor is subject to
6 the general safety standards.

7 Q. Okay. Again, I'm -- I apologize if you're not
8 the person to answer this next question. In the -- the
9 Solar Ordinance on Page 14, it talks about a complaint.
10 It's a very lengthy process for how a complaint should be
11 addressed. Where in the application is the complaint
12 procedure?

13 A. I don't know the answer to that.

14 MR. SHERMAN: I haven't found one.

15 I think that's all I have, I guess, at this time.
16 Thank you.

17 MR. KAINS: All right, very good. Thank you,
18 Mr. Sherman.

19 Any other questions from the public? Yes,
20 Mr. Uphoff?

21 (Pause.)

22 MR. KAINS: Good evening, Mr. Uphoff.

23 MR. UPHOFF: Good evening.

24 MR. KAINS: You have ten minutes for your

1 questions of this witness. And you may go right ahead
2 if -- it sounds like the mic's on.

3 CROSS-EXAMINATION

4 BY MR. UPHOFF:

5 Q. Let's say that you get online, whatever you want
6 to call that, let's say in 2027, you're up and going,
7 let's say there's a gizmo that comes up and...

8 A. I'm sorry, I'm having trouble understanding you.

9 MR. KAINS: Can you move your mic just -- there
10 you go. There you go.

11 BY MR. UPHOFF:

12 Q. Okay, let's say in 2027 you're online, you're up
13 and running. 2023, for some unknown reason, is shut down.

14 A. In 2023?

15 Q. Or 2030.

16 A. Okay.

17 Q. All right. If -- or do you -- do you have a
18 30-year lease on these properties?

19 A. So, I'm not sure I understand the initial --

20 Q. Is --

21 A. -- scenario.

22 Q. Is there a 30-year lease on these properties?

23 A. There is at least a 30-year lease on the
24 properties.

1 Q. At least?

2 A. Yeah.

3 Q. Okay. How long -- once it's shut down, how much
4 time do you have to clean it up and put it back in crop
5 production? Do you have the whole 30 years?

6 A. No, I believe that AIMA actually covers this and
7 this has to be done within a year of the project not being
8 operational.

9 Q. One year?

10 A. Yes.

11 Q. Okay, thank you. And the five-foot -- you say,
12 everything below five-foot is left --

13 A. No.

14 Q. -- but --

15 A. The -- so, that's what the AIMA stipulates, but
16 Earthrise intends to go beyond that. And unless in its
17 particular landowner-specific AIMA they request that the
18 cable be left in the ground, Earthrise intends and
19 anticipates and factors in the cost of removing all cable.

20 Q. So, even the stuff under five feet?

21 A. Correct.

22 Q. Thank you. Okay, I want to go back to we talked
23 a little bit about wetlands yesterday. I mean, this
24 involving you, is the part of ground that I'm gonna talk

1 about is low. On a topo map, it shows that 360 degrees
2 around this property I'm talking about is above the ground
3 that you're planning on putting solar panels on. How does
4 that not qualify as wetlands?

5 A. Yeah, as far as the -- the legal definition of
6 wetlands, I'll refer to Mr. Steffen's testimony yesterday.
7 From a technical standpoint, if that's a well-drained area
8 where the -- the drawdown is significant and water is not
9 retained there, that's what would result in that.

10 Q. So, if the tile had not been put in, it would
11 still be considered wetlands?

12 A. I can't speak to the tile aspect of it. It's
13 just a matter of if -- if the drainage, be it natural or
14 manmade, in that area is significant and allows for that
15 water to infiltrate in, that would most likely lead to it
16 not being considered a wetland.

17 MR. UPHOFF: Okay, thank you.

18 MR. KAINS: Very good. Thank you for your
19 questions, Mr. Uphoff.

20 Any other questions for this witness from folks
21 who are either opposed to the application or neutral on
22 the application?

23 Questions from Coles County staff and
24 consultants, Regional Planning Director, Mr. Lockhart?

1 MR. LOCKHART: No, sir.

2 MR. KAINS: No questions.

3 Mr. Keyt, Ms. Rives, to you?

4 MR. KEYT: I've got to ask some.

5 MR. KAINS: I know, and that's fine. You're
6 doing your job, Mr. Keyt, and we understand.

7 MR. KEYT: It's my -- (microphone feedback
8 disruption) -- yeah. Okay. Okay, I'll start again.

9 CROSS-EXAMINATION

10 BY MR. KEYT:

11 Q. Okay, Mr. -- I forgot your last name.

12 A. Horn.

13 Q. Horn, sorry. Okay, you -- you recognize that in
14 the ordinance for Coles County, for example, Page 14 is a
15 complaint -- the complaint procedure. There's no
16 requirement at this time for there be a complaint
17 procedure be included in the application, but you
18 understand, as Earthrise, they have to comply with the
19 complaint -- complaint resolution procedures, is that
20 fair?

21 A. Yes, we have to comply with what's in the
22 ordinance.

23 Q. Yeah, there's a number of other provisions -- for
24 example, the remedy provision, if there's a default, you'd

1 have to comply with that. It doesn't necessarily mean you
2 have to have something in the application at this time,
3 but you have to comply regardless whether it's in the
4 application or not, you still have to comply with the
5 remedy procedure, is that fair?

6 A. Correct.

7 Q. In terms of the panels themselves, what is -- do
8 you know what the wind rating is for the panels?

9 A. 106 miles per hour.

10 Q. So, the -- the County does have a third-party
11 engineer that may look at the design features. If the
12 third-party engineer comes back and says, "Hey, we need to
13 increase the wind rating for the racking or panels," is
14 that -- is that feasible or fair?

15 A. I -- I would say that our -- that 106 mile per
16 hour rating is very much an industry standard and to code,
17 and that also doesn't factor in the -- the wind stow that
18 was mentioned previously as well, where in that sense, we
19 are going beyond code requirements with an additional
20 feature to increase tolerance to high wind events.

21 Q. Okay, I understand. So, the -- the stow mode for
22 the weather event could increase what the actual wind
23 rating is?

24 A. Correct, it's not a structural but an operational

1 way to increase --

2 Q. Okay.

3 A. -- that rating.

4 Q. In terms of the warranty period, you indicated
5 the warranty period is approximately 25 to 30 years,
6 depending on -- assuming on the manufacturer, is that your
7 understanding?

8 A. That's correct.

9 Q. I think the life of the project that you've
10 requested approval for up to 50 years, which is quite a
11 long time, of course. My understanding, I think, was that
12 you'd probably be agreeable to something that would be
13 35 years, for example?

14 A. Yes.

15 Q. In terms of the -- the panels -- the -- or I'm
16 sorry -- the piling for the panels, the portion that's in
17 Coles County, do you know how long it will take to do the
18 driving of the panels?

19 A. The driving of the piles?

20 Q. Piles. I'm sorry.

21 A. I don't have a -- a number off the top of my
22 head. And, obviously, weather can factor into this as
23 well. But given the fact that we're just talking about
24 120 acres, that -- that pile driving would be complete

1 within a month, assuming the weather is not adverse.

2 Q. Do you know where the closest residence is to
3 where those parcels are?

4 A. I -- there's an adjacent residence, the
5 aforementioned one, that we're purchasing.

6 Q. Okay. Other than the one that you're purchasing,
7 is -- what is the next closest one, if you know?

8 A. I believe it's 350 feet away.

9 Q. Okay. In terms of the driving of the panels --
10 of the piles -- excuse me -- driving of the piles, it
11 tends to be a relatively noisy operation if you're ever
12 around it. Is there a noise reduction method you can take
13 to make -- to ensure that noise is not quite as evasive
14 upon the adjacent parcels?

15 A. Yep, so that's a good question. I -- I would say
16 that, you know, the nonparticipant parcel is 350 feet away
17 from our parcel. The actual distance is gonna be closer
18 to 400 feet. We only operate within basically, you know,
19 union work hours, daylight hours. So, this will not be
20 going on, you know, at night, or before sunrise. And
21 this, you know, this -- these pile drivers are always
22 moving, and while at one point they may be within, you
23 know, 400 feet of this residence, they will quickly be far
24 away from it, working on other areas of the parcels.

1 Q. Do you ever -- do you ever use screwed piles?

2 A. Earthrise has not used screw piles. There's --
3 just given the soil conditions, that's not been a
4 necessity for any of our projects.

5 Q. It is -- is it a feasible thing to do?

6 A. It would not be the best recommended approach
7 from an engineering prospective for this soil.

8 Q. Why -- just explain to us, why is that? I'm not
9 saying it isn't, I just don't know the answer.

10 A. Yeah, no, the -- the screw piles are generally
11 more beneficial in areas with a lot more rock, where
12 basically instead of relying on friction as the primary
13 method to keep the piles in the ground, you're -- I mean,
14 they're screws. You're driving it in and anchoring it in.
15 They're significantly shorter, generally. So, you know,
16 we talked about seven to nine feet as our embedment.
17 Screw piles are generally more like three or four feet,
18 which if you're driving into rock is perfectly adequate.
19 If you're doing that in topsoil, that's -- that's not
20 gonna provide as much strength because it's not going as
21 deep and -- and given wind loads, would be more at risk.
22 Q. In terms of -- my understanding is it's -- the
23 hope is the project would be a pollinator-friendly site
24 within the --

1 A. Yes.

2 Q. And that's within the -- the fence -- fenced-in
3 area?

4 A. That's within the fenced-in area and in perimeter
5 areas that are on participating parcels that are not
6 leased back to the landowners.

7 Q. I guess my question is, where the area where the
8 vegetative screening would be planted --

9 A. Yes.

10 Q. -- is -- that would also be included within the
11 pollinator-friendly portion?

12 A. Yes.

13 Q. Okay, so just assume for just the sake of
14 argument here that the pollinator-friendly scorecard
15 doesn't comply and you don't meet the qualifications.
16 What would be the -- the plan, other than slow-mowing --
17 or slow-growing grasses, would there be a mowing plan or a
18 vegetation management plan for that?

19 A. Yes, absolutely.

20 Q. Okay.

21 A. There'll be a vegetation management plan for the
22 pollinated areas as well.

23 Q. Okay, understood. So -- and I think the
24 developer is open -- I think we covered this yesterday --

1 to doing a vegetation and weed management plan to be
2 provided to the County for --

3 A. Yes.

4 Q. -- approval there?

5 (Pause.)

6 Q. How many -- how many projects has Earthrise
7 completed in Illinois?

8 A. Earthrise has two projects under construction
9 currently. These are our first two solar projects up in
10 Ford and McLean County. We do not have any that are
11 currently feeding into the grid, those two are slated to
12 come online early next year, and then we have the five
13 existing natural gas peaker plants.

14 Q. Okay. How many solar projects has Earthrise
15 completed in the Midwest?

16 A. Illinois is our -- our base of operations here.

17 Q. How about nationwide?

18 A. Illinois remains our --

19 Q. Okay.

20 A. -- primary focus.

21 Q. So, the first projects that you -- Earthrise will
22 have completed are the -- the Ford County project and the
23 McLean County project, which are kind of one project, they
24 just overlap into two different counties?

1 A. They have separate offtake agreements as well and
2 separate construction schedules. They'll be -- they're
3 feeding into the same natural gas peaker plant.

4 Q. And that's the one in Gibson City?

5 A. Correct.

6 Q. And then the one -- and then this one would be
7 the second project --

8 A. This --

9 Q. Or the third?

10 A. This would be the fourth. The -- there's another
11 project feeding into the Shelby hub that's solely within
12 Cumberland County that will come online before this one.

13 MR. KEYT: Okay. Okay, I think that's all the
14 questions I have for you. Thank you.

15 MR. KAINS: Thank you, Mr. Keyt.

16 EXAMINATION

17 BY MR. KAINS:

18 Q. Mr. Horn, Mr. Keyt referenced or -- well, he
19 asked the question about the closest residence to the
20 project. Notwithstanding the one that Mr. Yurs owns, this
21 other home that's 350 feet away, will it hear the noise
22 from any inverter in the three parcels that are located
23 within Coles?

24 A. No.

1 Q. Okay. Would Mr. Yurs' home be subject to hearing
2 at the noise from any inverter?

3 A. No, at the fence line of the project, there will
4 be not -- there will be no audible noise from the
5 inverters.

6 Q. Okay, very good.

7 A. We are within compliance for the Illinois
8 Pollution and Control statutes.

9 MR. KAINS: Okay. Very good, thank you.

10 All right, redirect examination now, Mr. Barry?

11 MR. BARRY: I have none.

12 MR. KAINS: All right, very good.

13 Final questions for the witness come from members
14 of the committee. Mr. Chairman?

15 CONTINUED CROSS-EXAMINATION

16 BY MR. WATTS:

17 Q. Last night, the issue of drainage districts was
18 raised, and I don't remember if there was a clear answer.
19 Have you coordinated with them since they actually have
20 some jurisdiction?

21 A. The -- the answer was that we have tried to reach
22 out to them and have not heard back. We would like to
23 coordinate with them, and will continue to reach out to
24 them.

1 Q. And when you say "coordinate," what does that --
2 how will that take place?

3 A. Basically, see if they have any maps, locations
4 of existing tile on areas that we're impacting, you know,
5 project-wide, and then see what recommendations they have
6 for tile repairs, procedures for that, local contractors
7 that they recommend for the work that have knowledge of
8 the local tile, that work in the area, and of the local
9 soils.

10 Q. And do you know if Earthrise has ever had a
11 happenstance where there's a requirement made by a
12 drainage district that Earthrise either doesn't agree with
13 or can't comply with in an economical way?

14 A. That has not happened. We have worked with
15 drainage -- the drainage district at our existing projects
16 around Gibson City. And we met with them, the --
17 discussed our plans for the area, discussed their
18 recommendations, and we're in agreement with how to
19 proceed.

20 MR. WATTS: All right, thank you.

21 MR. KAINS: Okay, Mr. -- Mr. Shook, you'll go
22 next. Mr. Clayton -- but Mr. Shook, I'll --

23 MR. CLAYTON: This is --

24 MR. KAINS: -- I'll let you have one.

1 CONTINUED CROSS-EXAMINATION

2 BY MR. CLAYTON:

3 Q. This is your handout that you gave us.

4 A. Okay.

5 Q. Under "Solar Modules," the very first line or
6 lines says, "Utilizes state of the art aluminum-framed
7 crystalline silicone bifacial PV technology assembled in
8 the U.S." From what you were just talking to Mr. Sherman
9 about, that doesn't sound like what I just read.

10 A. Yep, that's an error on the slide. For projects
11 under construction now, they are assembled in the U.S.
12 Given the recent -- we expect that they will be assembled
13 in the U.S. for this as well, but that's not something
14 that we can commit to.

15 MR. CLAYTON: Hmm. So -- okay, thank you.

16 MR. KAINS: All right. Mr. Shook?

17 MR. SHOOK: Thank you, sir.

18 CONTINUED CROSS-EXAMINATION

19 BY MR. SHOOK:

20 Q. When you put the items into the ground --

21 A. Yep.

22 Q. -- are you guys gonna be using pounders or like,
23 for example, maybe like a backhoe to push them down or a
24 loader?

1 A. We will be using Vermeer PD10 pile drivers.

2 MR. SHOOK: Okay, thank you.

3 MR. KAINS: Final questions from the committee?

4 Well, Mr. Royal's not on the committee, but I let

5 Mr. Shook and I'm gonna let Mr. Royal.

6 MR. BARRY: No objection.

7 MR. KAINS: (Laughs.)

8 CONTINUED CROSS-EXAMINATION

9 BY MR. ROYAL:

10 Q. How many employees are in Gibson -- Gibson City?

11 A. How many employees are involved in construction
12 there? They have about 300 people building it right now.

13 (Pause.)

14 MS. ZIMMERMAN: I have a question.

15 MR. KAINS: Ms. Zimmerman, how are you tonight?

16 MS. ZIMMERMAN: I'm good.

17 MR. KAINS: Good, go right ahead.

18 CROSS-EXAMINATION

19 BY MS. ZIMMERMAN:

20 Q. So, maybe clarify, do you have specific companies
21 that you only work with that you'll order the panels or
22 it's kind of like...

23 A. It -- we -- no, we -- we don't have -- you know,
24 there -- there are specific companies that we do not work

1 with, due to, you know, government requirements and
2 whatnot, solar panels coming from China are, you know,
3 heavily tariffed but basically non-usable. But, you know,
4 it's an open-bid process for a -- for a small group of
5 companies.

6 Q. And I'm assuming that like with anything in the
7 construction world, you know, it's supply and demand, but
8 also where you're at when you get the job -- I mean, part
9 of why you can't do this is because it hasn't been
10 approved and you don't know where you're gonna get the
11 panels --

12 A. Correct.

13 Q. -- so you got to figure that out after the
14 project's approved. But even if they're made or assembled
15 in the United States, I mean, it is important to point out
16 that that doesn't necessarily mean that we're not --
17 obviously, a lot of the solar panels and things are still
18 using parts from other countries. It's not necessarily
19 made in America because -- I mean, are you aware of
20 anything -- I -- from all my research, I don't know of any
21 company that is strictly made in America. Is that fair?

22 A. That's correct, like a lot of manufacturer
23 products, you know, the materials are sourced from a
24 variety of locations, brought to a central hub, and

1 assembled together.

2 MS. ZIMMERMAN: Okay, thank you.

3 MR. KAINS: Thank you for your questions,
4 Ms. Zimmerman.

5 All right, anything else from the committee? All
6 right, very good.

7 Thank you, Mr. Horn. You may step down.

8 All right, Mr. Barry, call your next witness.

9 MR. BARRY: I'd like to call up Dr. David Loomis
10 to the witness stand, please.

11 (Pause.)

12 MR. KAINS: Good evening, sir.

13 DR. LOOMIS: Good evening.

14 (Witness sworn.)

15 MR. KAINS: Very good, thank you. Have a seat.

16 Mr. Barry, your witness.

17 MR. BARRY: Thank you.

18 Good evening, sir.

19 THE WITNESS: Good evening.

20 DR. DAVID LOOMIS

21 called as a witness on behalf of the Applicant,

22 being first duly sworn,

23 was examined and testified as follows:

24 DIRECT EXAMINATION

1 BY MR. BARRY:

2 Q. Could you please state your name for the record
3 and spell it.

4 A. It's David, D-a-v-i-d, Loomis, L-o-o-m-i-s.

5 Q. Thank you. Now, I referred to you earlier as a
6 doctor. Are you a medical doctor?

7 A. No, I am not.

8 Q. What kind of a doctor are you?

9 A. I have an earned PhD from -- in economics from
10 Temple University.

11 Q. And do you have a company, sir?

12 A. Yes, my company is Strategic Economic Research,
13 LLC.

14 Q. And what's your role with your company?

15 A. I am president.

16 Q. And can you tell us a little bit about -- you
17 mentioned your education, can you tell us a little bit
18 about your work history?

19 A. Sure. I was a professor of economics at Illinois
20 State University for 26 years. While I was there, I was
21 cofounder of the Center for Renewable Energy and also
22 taught in our graduate program on electricity, natural
23 gas, and telecommunications economics, and was executive
24 director for the Institute for Regulatory Policy Studies

1 that engaged the regulatory community -- electric, natural
2 gas, water, utilities -- in the state, in the Midwest.

3 Q. What does your company do? What it's primary
4 line -- primary line of business?

5 A. Our primary work is looking at the economic
6 impacts and property tax implications of energy projects.
7 We look at wind, solar, transmission, natural gas, some
8 proposed hydrogen plants, and -- and the like.

9 Q. And have you testified as a witness in a
10 proceeding like this before?

11 A. Yes.

12 Q. On how many occasions?

13 A. Including kind of state kind of public utility
14 commissions, over a hundred times.

15 Q. And were any of those proceedings in Illinois?

16 A. Yes.

17 Q. Approximately how many?

18 A. Oh, 50, 60 just here in Illinois.

19 Q. And does that include renewable energy projects?

20 A. Yes.

21 Q. Hearings for renewable energy projects?

22 A. Yes.

23 Q. And where do -- where do you reside at, sir?

24 A. I'm a -- live in Bloomington, Illinois.

1 MR. BARRY: Thank you. At this time, I'd like to
2 move to designate Dr. Loomis as an expert on economics and
3 other related issues.

4 MR. KAINS: Mr. Keyt, any questions or
5 objections?

6 MS. RIVES: We have no questions or objections.

7 MR. KAINS: Thank you, Ms. Rives.

8 Folks, I have heard Dr. Loomis testify in
9 numerous hearings. I've qualified him as an expert
10 witness on numerous occasions. I find him to be one of
11 the foremost experts in this area. And so he is -- and
12 that doesn't mean I think he's greater than any other
13 witness, but he is a very qualified expert witness. He
14 will have 30 minutes to testify, although I understand
15 he's not really going to be doing any kind of
16 presentation, is that my understanding?

17 MR. BARRY: I'll just say that he's probably not
18 gonna need the 30 minutes.

19 MR. KAINS: Okay, all right. Well, he's in as an
20 expert. Go right ahead, Mr. Barry.

21 MR. BARRY: Thank you, Mr. Kains.

22 BY MR. BARRY:

23 Q. Dr. Loomis, did your company prepare an Economic
24 Impact Analysis for this project?

1 A. Yes, we did.

2 Q. And is that analysis included as Appendix C in
3 the permit application materials?

4 A. Yes.

5 MR. BARRY: That's all of the questions I have
6 for Dr. Loomis at this time.

7 MR. KAINS: All right, it's Appendix C in the
8 application.

9 I guess we'll start with questions from members
10 of the committee.

11 And, again, ladies and gentlemen, you will have
12 the final questions as well, so if you're not up to speed
13 on Appendix C right now. But I'm sure -- and I haven't
14 seen Appendix C -- but I'm sure there is a breakdown of
15 jobs that would be created in construction and in
16 operation and there's also -- well, we saw in Mr. Ozmen's
17 testimony on the PowerPoint, there was a breakdown of tax
18 revenues going to each governing body, including Coles
19 County, the City of Mattoon, a couple of school districts
20 as I recall, Neoga and Mattoon. And so, these were all,
21 I'm sure -- well, Dr. Loomis, were those all your
22 company's handiwork?

23 THE WITNESS: Yes.

24 MR. KAINS: Did you take part in preparing those

1 numbers?

2 THE WITNESS: I supervised the -- that work.

3 MR. KAINS: Okay, very good. Are there any
4 questions from members of the committee for Dr. Loomis?
5 Mr. Chairman?

6 CROSS-EXAMINATION

7 BY MR. WATTS:

8 Q. My only question is, were you involved at all
9 with the Appendix D, having to deal with the Property
10 Value Impact Analysis?

11 A. No, I was not.

12 MR. WATTS: Okay, thank you.

13 MR. KAINS: All right, any other questions from
14 members of the committee?

15 Ladies and gentlemen on the County Board?
16 Mr. Shook?

17 CROSS-EXAMINATION

18 BY MR. SHOOK:

19 Q. How much money Mattoon gonna get?

20 A. The City of Mattoon?

21 Q. Yeah.

22 (Pause.)

23 A. So, I believe the -- there's, I think, still
24 ongoing negotiations in terms of what that -- what that

1 agreement is gonna turn out to be in terms of how much
2 money they're going to get.

3 Q. So, can you give me a ballpark?

4 A. That would be subject to negotiations between --
5 with Earthrise.

6 MR. KAINS: I think I want to try to get an
7 answer to this.

8 Mr. Barry, did Mr. Ozmen's PowerPoint have a
9 specific amount for the actual City of Mattoon?

10 MR. BARRY: Well, I -- I'd like Dr. Loomis to try
11 and answer the question. But to the extent that this
12 hearing is about the three parcels within the jurisdiction
13 of the County, at least from a taxing -- a real estate tax
14 prospective, the County likely doesn't have any -- excuse
15 me -- the City of Mattoon would enjoy any tax revenue from
16 these three parcels. But to the extent that the remainder
17 of the project in Coles County will be permitted within
18 the City of Mattoon, I believe that would fall within the
19 City of Mattoon's jurisdiction. So, I don't know if the
20 report covers both Mattoon and Coles County or the
21 portions of the project. But the -- the portion, at least
22 from a tax revenue standpoint, that includes the three
23 parcels here in Coles County, is probably not gonna
24 generate any tax revenue for the city --

1 MR. KAINS: Okay.

2 MR. BARRY: -- if that makes sense.

3 MR. KAINS: Yeah.

4 MR. SHOOK: Well, why is Mattoon mentioned then?

5 MR. KAINS: Well, hang on a second, Mr. Shook.

6 I -- I want to get to this.

7 Do you have the PowerPoint from Mr. Ozmen that
8 you can hand me or put up on the screen? Sure.

9 MR. OZMEN: Yep.

10 (Pause.)

11 MR. KAINS: Okay, I was mistaken in that this
12 PowerPoint had anything relating to the City of Mattoon.
13 I see Mattoon Community Unit School District Number 2
14 would be receiving over 30 years in excess of three
15 million dollars over the 30-year period. And if it were
16 to be a 50-year period, over five million dollars. But
17 I'm -- I was incorrect that -- and, Mr. Barry, I
18 completely understand your statement regarding that these
19 are three parcels out in the County that have nothing to
20 do with the City of Mattoon.

21 So, with that said, Mr. Shook, I think the only
22 thing that is involved with anything in Mattoon in his
23 work on this particular project, this application, for
24 these three parcels in southern Coles County, relates to

1 the school district.

2 So, do you have any other questions for
3 Dr. Loomis?

4 MR. SHOOK: Well, I don't think three million
5 dollars is very much in 30 years.

6 MR. KAINS: Do you have a question, Mr. Shook?

7 MR. SHOOK: No, I don't.

8 MR. KAINS: All right, thank you.

9 Any other questions from members of the County
10 Board? Yes, Mr. Doty?

11 CROSS-EXAMINATION

12 BY MR. DOTY:

13 Q. In your study, how long does it take for the
14 reassessment goes from agricultural use to this use to
15 show up on the tax bill? How long -- how -- is it
16 18 months, two years, or three years?

17 A. So, the -- it would be -- the year in which it
18 becomes operational would be the start, that would be when
19 it gets taxed. Then, it would be the -- the following
20 year. There is the -- also the provision in terms of the
21 interplay with the school district that the EAV for the
22 school districts runs on a three-year rolling average.
23 And so, the EAV doesn't show up in full strength right
24 away for that three-year rolling average.

1 Q. How's the assessment determined? Is it the
2 building permit that shows the cost of the project or how
3 do they determine a value?

4 A. Yeah, the -- the value for the solar project is
5 determined by State statute. It is dependent on the
6 megawatt capacity of the project. So, rather than the
7 electricity produced, it's on the nameplate capacity. And
8 then, that figure is -- has what they call a trending
9 factor, which is really just the Consumer Price Index.
10 So, they account for inflation each year. So, between the
11 time that the legislation set it -- which I think was
12 \$218,000 per megawatt -- then they applied that trending
13 factor from that point forward.

14 Q. Is there a depreciation factor figured into that?

15 A. Yes, there is. The statute also allows for them
16 to take a four percent depreciation each year. So, you
17 have kind of the inflation causing the value to rise and
18 then the depreciation each year to go down. But in the
19 statute, they can't depreciate any more than 70 percent --

20 Q. Okay.

21 A. -- of the -- the value, so that it never -- it
22 gets depreciated down to zero. 30 percent is the -- is
23 the minimum.

24 Q. My experience is very limited, but we have a -- a

1 large solar farm on the east side of the County that
2 benefits Kansas more than it does the County, but it
3 seemed like it took them a long time to get the assessment
4 correct on that.

5 A. Yeah.

6 Q. And then over where I live at on the 1000 Road,
7 there's one gonna be coming online. So, I guess my -- I'm
8 a road-bridge guy. So, is -- is the footprint of this
9 mostly in Neoga Township or is it in Paradise? I mean,
10 Neoga looks like they're getting somewhat more.

11 A. Yeah, but that is also dependent on that -- on
12 that --

13 Q. The rate?

14 A. -- the tax rate, as well as the percent of solar
15 panels for the total project that's going to be between
16 the two townships.

17 Q. So, you believe it would properly assess within a
18 three-year period?

19 A. Yes.

20 MR. DOTY: We'll see.

21 THE WITNESS: (Laughs.)

22 MR. KAINS: All right, any other questions from
23 members of the County Board? Mr. Cox?

24 CROSS-EXAMINATION

1 BY MR. COX:

2 Q. I'm somewhat concerned about the adverse effect
3 that taking land out of crop production may have. And I
4 see in the -- your list here that agriculture only is
5 2.5 percent of employment in Coles County. I find that
6 hard to believe when 80 percent of land in Coles County is
7 agriculture-use. How did you arrive at that number? It's
8 tables point -- 3.1.

9 A. Yeah, but that comes out of the IMPLAN software
10 that's specific to the -- to the County. And it is based
11 on, you know, the underlying government statistics in --
12 in that, in terms of a number of employees that are --
13 that are present.

14 Q. So, would that include employees at a grain
15 elevator or trucking industry or selling farm implements,
16 is that included in that number?

17 A. No, oftentimes those are counted in other
18 industries, rather than what we think of as directly ag.
19 So, they might be in, you know, equipment manufacturing,
20 even though we think as those as the kind of agricultural
21 supply chain. So, this -- and the other thing that this
22 does is typically look at full-time equivalents. And so
23 if, you know, if you're only doing farming during, you
24 know, planting and harvest, then you have another

1 occupation or something, it would only be those -- that
2 portion of that time that was spent in agriculture that
3 would count towards this number and they would do it as a,
4 you know, 40-hour a week, 52-week kind of job to -- to
5 normalize it. So, even though you might be fully employed
6 in agricultural, it might not count -- show up in
7 government statistics that way.

8 Q. I just -- I looked at the USDA statistics and the
9 producers were well over a thousand in Coles County, which
10 is three or four hundred more than what you had projected.

11 A. Yeah.

12 Q. So, you didn't use USDA numbers, then, at all?

13 A. I did not use that in -- in that particular
14 table. This came out of -- of IMPLAN.

15 MR. COX: Okay, thank you.

16 MR. KAINS: Thank you, Mr. Cox.

17 Any other questions from members of the County
18 Board?

19 Questions from members of units of local
20 government, including school districts?

21 Questions from members of the public who are
22 either opposed to or neutral on the application?

23 Mr. Sherman?

24 (Pause.)

1 MR. SHERMAN: I just have a couple questions.

2 CROSS-EXAMINATION

3 BY MR. SHERMAN:

4 Q. I'm specifically looking at Page 31 of your
5 report that's in the appendix. There's a tax -- or
6 there's a table, it's not a tax -- there's a table that
7 shows the tax benefits and it's got from 2028 and then on
8 to the next page, it goes to 2077 and it has some totals.
9 Above that, there's three paragraphs, do you see what I'm
10 talking about?

11 A. Yes.

12 Q. Third paragraph down, why do you list Martinsville
13 School District?

14 (Pause.)

15 A. Yeah, it looks like...

16 Q. Should that be Neoga?

17 A. I think we -- as you see in the table below, the
18 6.6, it has Neoga for Coles County and then the Neoga for
19 Cumberland County. And the reason that we split those out
20 is because they had different millage rates, even though
21 it's still going to the same school district. So, I think
22 we copied that incorrectly just because we had three
23 school districts, but really it's just two school
24 districts with three different millage rates.

1 Q. And so -- and that directly takes me to my
2 footnote at the very, very bottom in the very tiny print,
3 I think it's Footnote 4, it talks about the assumed tax
4 rate is four-point -- 4.23309 for Mattoon, two-point -- or
5 I'm sorry -- 3.32839 for Martinsville. Is it for
6 Martinsville or is it for Neoga? Because it's a big
7 difference. If you looked at Martinsville in a tax code
8 and you pulled out the Martinsville number and you plugged
9 it in here, you're gonna get a whole bunch of different
10 numbers, am I right?

11 A. Yeah, I'd have to look at the -- that tax rate to
12 say whether that is the Martinsville tax rate or whether
13 that is the Neoga tax rate for either Coles or Cumberland
14 Counties.

15 Q. So, is it safe to say this table could possibly
16 be in question because we're not sure if it's Martinsville
17 or Neoga?

18 A. Yeah, I'd have to double-check that.

19 Q. The second thing -- and I'm getting into
20 semantics here, but it's kind of what I did for 20-some
21 years -- the second photograph, item Number 2, you say,
22 "The school district can raise the tax rate and increase
23 its revenues." Do school districts set tax rates?

24 A. I think we've had this discussion before.

1 Q. We have.

2 A. And the -- the -- the school district will set
3 its levy. The EAV is usually set by the time that they've
4 set their budget, so that the levy then turns into the tax
5 rate because the levy divided by the tax rate -- or by the
6 EAV gives you the tax rate.

7 Q. So, is it safe to say that that should say "can
8 raise the tax levy" and not the word "rate"? Because
9 there's a big difference as you just described.

10 A. I -- I don't perceive it -- that to be a big
11 difference. But if you would prefer the word "levy" there
12 in terms of a school district can raise the -- the levy, I
13 would not object to that phrasing.

14 MR. SHERMAN: I just want to make sure we're
15 getting accurate information. That -- that's all I have,
16 thanks.

17 THE WITNESS: Uh-huh.

18 MR. KAINS: Thank you, Mr. Sherman.

19 Any other questions from folks opposed to or
20 neutral on the project?

21 Coles County staff and consultants, Mr. Lockhart?

22 MR. LOCKHART: No, sir.

23 MR. KAINS: Mr. Keyt, Ms. Rives?

24 MR. KEYT: I have a few.

CROSS-EXAMINATION

BY MR. KEYT:

Q. So, to follow -- excuse me -- to follow-up on a question that Mr. Cox had, I want to back up, first, to the IMPLAN software. What do you do to plug that information in to the IMPLAN software? What physically are the inputs that you put in?

A. So, that particular table, we don't put anything in. That is just purely looking at the descriptive statistics here for Coles County and where -- what IMPLAN sectors of the economy, the employment, is currently.

Q. So, my question -- my question, though, is more just generally, what -- what do you put into the IMPLAN software? What inputs do you physically put in for the -- for the IMPLAN to run its software magic?

A. Yeah, so the -- for the Economic Impact Analysis, we get detailed cost estimates from Earthrise on their capital expenditures in the various industry segments that would be meaningful to a solar developer. And then, also, during operations and maintenance, what they're going to be spending money for in the -- the local community. We also get information about land leases, those -- the landowner payments that would be put out. And then, we do our own calculation of property taxes. And those are then

1 all input into the IMPLAN model.

2 There is a translation that takes place, based on
3 our knowledge of, you know, what -- so, for example, we've
4 talked about inverters. If we get the cost of their
5 inverters, then we have to translate that into what
6 industry segment do inverters translate to or, you know,
7 piles and -- and steel and so forth. So, that's what
8 we're actually inputting into IMPLAN is those -- those
9 detailed cost estimates from Earthrise.

10 Q. So, then, who makes the estimation on where
11 certain dollars will be spent in relation to whether it's
12 in local economy, whether it's state-wide, or whether it's
13 some regional economy, or what?

14 A. Yeah, we will ask Earthrise their intention in
15 terms of spending. Typically for -- for equipment like
16 inverters, solar panels, we -- we assume that none of that
17 is gonna be sourced from -- from Illinois because we don't
18 have a solar panel assembly plant here in Illinois in the
19 like. So, a lot of the equipment we assume gets spent
20 outside of the State of Illinois. But then labor, we look
21 at how much of that labor is going to be sourced from
22 unions and local union calls to say that's gonna be the
23 greatest of the economic impacts would come from that
24 local labor during construction. And then, spending

1 during the operations.

2 Q. So, the -- if I'm understanding you correctly,
3 the -- the dollar estimates as in, perhaps, full-time
4 equivalent jobs that might be created from where things
5 are being spent, whether it's labor or materials, those
6 are estimates that come solely from Earthrise?

7 A. We do a quality check based on our experience and
8 other solar projects across Illinois and across the
9 country. So, there is a quality check, but the first
10 source of that information is from Earthrise.

11 Q. And in this instance, did you perform a quality
12 check?

13 A. Yes.

14 Q. Who did the quality check?

15 A. My director of economic impact analysis.

16 Q. I assume that's not you, unless you're referring
17 yourself in the third-person, but --

18 A. That's correct, that --

19 Q. Okay.

20 A. -- that's Chris Thankan.

21 Q. Understood. Now, IMPLAN software, I assume
22 that's not software that you developed. That came from
23 where?

24 A. IMPLAN was originally from -- University of

1 Minnesota developed the software, and then they spun it
2 out as a separate company. It is used -- it's one of two
3 leading economic impact software to do this kinds of
4 analysis. IMPLAN is the preferred one to do a project
5 like this, where you're -- you're doing construction and
6 operations. But economic development professionals would
7 use it to estimate, you know, the building of a hospital
8 or a factory or anything that's not specific to energy or
9 renewable energy.

10 Q. When was -- when was the last time the software
11 was updated?

12 A. It is updated annually, but because it's based on
13 government releases of data, it's always one year in
14 arrears. And they will come out -- so the -- the 2024
15 numbers will come out in November of this year. And it --
16 it contains the interrelationships between all the
17 different industries here in Coles County.

18 Q. In this particular instance, then, the IMPLAN
19 software is based on numbers from 2023?

20 A. That's correct.

21 Q. Does the -- do the numbers from 2023, then --
22 well, strike that. You would agree with me that the
23 numbers from 2023 do not necessarily reflect the current
24 economic conditions?

1 A. I -- in terms of the interrelationships between
2 those industries, my experience has been that it's fairly
3 stable from year-to-year.

4 Q. So, your -- your description of our current
5 economic status is that it's very -- it's stable from the
6 time of 2024 to 2023?

7 A. In terms of those multipliers within IMPLAN to
8 say, you know, so, Industry X needs as part of its supply
9 chain to get inputs from Industry, you know, Y and Z,
10 those relationships tend to be stable over time.

11 Q. Does the IMPLAN software take into account what
12 negative economic impacts may resolve from a project?

13 A. Yes.

14 Q. And in this instance, what was IMPLAN's results
15 of the negative economic impacts?

16 A. So, just to be clear, it does contain negative
17 impacts for different sectors. But in order to do an
18 assessment, you would have to put in different assumptions
19 in terms of -- of the losses of the alternative to feed
20 into the model to see what those losses would be.

21 Q. So that was -- was that done in this instance?

22 A. No, we did not do this analysis.

23 Q. So, you've not factored into the report that
24 you've provided what negative impacts there may be

1 economically in relation to the project?

2 A. This was just looking at the -- the positive
3 economic impacts that would come due to the solar. We did
4 not then net out any losses from other alternatives, due
5 to the fact that we thought those economic impacts would
6 be very small.

7 Q. When you say "very small," what do you think they
8 would be?

9 A. So, it would depend on the value of the -- the
10 crops, assuming that that's what -- what you're looking
11 at. So, what's the value of the crops and then what's the
12 value of the supply chain associated with that. We did
13 not do that for this study, but I did do it recently for
14 a -- for a solar project in McLean County. In there, we
15 saw positive net economic benefits.

16 Q. So, you might have a positive net economic
17 benefit for the project as a whole, is that what you're
18 saying?

19 A. Yes.

20 Q. Did you look at the impacts specifically as to
21 Coles County or as the project as a whole?

22 A. We looked at the -- at Coles County and then at
23 Cumberland County.

24 Q. In doing the -- the report that you prepared, do

1 you look at where, for example, fertilizer might be
2 sourced for those rural crop agriculture parcels that are
3 being utilized for the panels?

4 A. That's really what IMPLAN is -- is particularly
5 good at, is to say for farming operations in Coles County,
6 how much of fertilizer and other industries and supply
7 chains get sourced from within Coles County, adjacent
8 counties but within Illinois, and then outside of
9 Illinois. And not only that, but it would look at the
10 fertilizer company and say where does the fertilizer
11 company get its inputs and -- and so forth. So, to the
12 extent that those stay within Coles County, you get a much
13 larger multiplier effect in terms of the economic impacts.

14 Q. Okay. So, does IMPLAN know who the specific
15 suppliers are for those specific parcels?

16 A. No, it's going to take those in aggregate in
17 Coles County that Coles County as a whole does not --
18 these specific three parcels.

19 Q. Okay, but let's say the project as a whole, just
20 from the IMPLAN software, what I'm understanding is it's
21 taking estimations based on information provided in 2023
22 as to what those economic impacts may be, fair?

23 A. Yes.

24 Q. And in this particular instance, there is the

1 ability to run the negative impact, but that was not done
2 in this instance, is that fair?

3 A. That's right.

4 Q. Okay. So, in terms of what the negative impacts
5 might be -- let's presume, for example, that there is a
6 fertilizer supplier that's located in Coles County, and
7 that fertilizer supplier is supplying fertilizer for the
8 entirety of those parcels that are for the entire project,
9 right? Fair?

10 A. So -- so, we're talking about the -- the
11 120 acres?

12 Q. No, the whole project as a whole.

13 A. So, even with the acres that are included in
14 Cumberland County?

15 Q. Yeah, that --

16 A. Okay.

17 Q. -- that would be not unreasonable, right? Like
18 you could have a fertilizer supplier here in Coles County
19 that is supplying to both Cumberland and the areas up near
20 Mattoon -- Mattoon --

21 A. Right.

22 Q. -- and the three parcels that are in the
23 jurisdiction here, because it's not like there's some
24 jurisdictional line they can't cross there, right? Fair?

1 A. Right, yes.

2 Q. So, what you're -- what you're telling us is
3 you've not looked at the regular impacts that may result,
4 then let's just hypothetically say there is a supplier
5 here in Coles County that is supplying to that entire
6 area -- project area. You would agree with me that that
7 could have a -- a negative impact to someone's job here in
8 Coles County? Fair? With this taken out of rural crop
9 agricultural.

10 A. Yeah, the impact, you know, in terms of the
11 number of acres that are taken out is very, very small.
12 The percentage here in terms of agricultural acreage taken
13 out is less than one percent, I believe, between --
14 between the two. And so, that's why we didn't deem it
15 necessary to -- to do that separate analysis.

16 Q. But you're looking at it from the overall impact
17 to the County and the project's impact to the overall
18 area, is that fair?

19 A. Yes.

20 Q. So, in other words, what I'm trying to say is,
21 well, there could be a person who is responsible for
22 selling fertilizer, for example, to those inputs or to
23 those acres that are being impacted. That person could
24 have a dramatic impact, fair?

1 A. I still don't think that number of acres would
2 have a -- a significant impact to any one particular
3 fertilizer supplier. It -- it's too small, you know, a --
4 an area, even if they supplied in both Coles and
5 Cumberland County acreage.

6 Q. Do you know what the cost of fertilizer is per
7 acre these days?

8 A. No.

9 Q. Do you know what the cost of aerial application
10 is per acre these days?

11 A. No.

12 Q. Do you know what the cost of seed corn sale is
13 for, let's say, corn or soybeans per acre?

14 A. No.

15 MR. KEYT: Okay. That's all the questions I
16 have. Thank you.

17 MR. KAINS: Thank you, Mr. Keyt.

18 Redirect, Mr. Barry?

19 (Pause.)

20 MR. BARRY: No -- no questions.

21 MR. KAINS: All right, final questions for
22 Dr. Loomis come from members of the committee. All right,
23 very good.

24 Thank you, Dr. Loomis. You may step down.

1 All right, do you have another witness or do we
2 have a stipulation?

3 MR. BARRY: I -- I do not have another witness,
4 but I -- I do have a stipulation.

5 Before I get to the stipulation, could I ask for
6 a little housekeep --

7 MR. KAINS: Yes.

8 MR. BARRY: -- to the extent I would like to ask
9 that the PowerPoint presentation be admitted into evidence
10 since we've completed it.

11 MR. KAINS: Yes, okay. We have Mr. Ozmen's
12 PowerPoint. Can you -- have you marked it as exhibit?

13 MR. BARRY: No, and I -- I'd like to do that now.

14 MR. KAINS: Okay, yes. Let's go ahead. Do you
15 want to mark Mr. Ozmen's PowerPoint as Applicant's
16 Exhibit 1?

17 Mr. Keyt, Ms. Rives, do you have any objection to
18 the admission of that?

19 MR. KEYT: No objection.

20 MR. KAINS: Okay. PowerPoint from Mr. Ozmen,
21 Applicant's Exhibit 1, is admitted into evidence. It can
22 be considered by the committee and the County Board when
23 it's their time to vote on the application.

24 All right, Exhibit 2, we had a PowerPoint for

1 Mr. Steffen as well.

2 MR. BARRY: Correct, correct.

3 MR. KAINS: Okay. Let's mark that as Applicant's
4 Exhibit 2. Mr. Steffen was the second witness who
5 testified on wildlife biology and other areas.

6 Mr. Keyt, Ms. Rives, do you have any objection to
7 the admission of that in evidence?

8 MS. RIVES: We have no objection.

9 MR. KAINS: No objection, it will be admitted --
10 Applicant's Exhibit 2 is admitted, to be considered by the
11 committee and, ultimately, by the County Board.

12 And the final PowerPoint was Mr. Horn's
13 presentation.

14 Mr. Barry, would you please mark that as
15 exhibit -- Applicant's Exhibit 3.

16 MR. BARRY: Yes, sir.

17 MR. KAINS: Okay, very good.

18 Any objection to the admission of that,
19 Ms. Rives, Mr. --

20 MS. RIVES: No --

21 MR. KAINS: -- Keyt?

22 MS. RIVES: No objection.

23 MR. KAINS: All right, thank you. All right,
24 Exhibit 3, Mr. Horn's PowerPoint is in evidence as well,

1 to be considered in any decision by this committee and the
2 County Board.

3 All right, that takes up the housekeeping.

4 Mr. Keyt, do you want those copies to be in the
5 record to you? Because I don't take them.

6 MR. KEYT: Yeah, they would -- they would come to
7 us, and we'll mark them for the exhibits.

8 MR. KAINS: All right, okay.

9 MR. KEYT: Which I think...

10 MR. KAINS: Get those -- get those to Mr. Keyt
11 during the break. Let's -- let's take up the stipulation
12 after the break because I don't want to break Lydia's
13 fingers and -- because she might break mine. So, we'll
14 take up that stipulation following the break. And then
15 we'll have testimony from the public.

16 Before we do take the break, I just want to make
17 this clear, if you're a member of the public, whether you
18 are in favor, opposed, or neutral, you have the
19 opportunity to testify. You also have the opportunity to
20 give public comment. I'll explain the distinction again.

21 Testimony -- if you're a Coles County resident or
22 a resident of Neoga Township in Cumberland County, you'll
23 be considered a resident and you'll have 30 minutes to
24 testify. If you are a non-Coles County resident or not a

1 resident of Neoga Township in Cumberland County, you will
2 have five minutes to testify.

3 Public comment, there's a limit of three minutes
4 per person.

5 Now, the difference -- if you testify, you'd come
6 up on the witness stand, you say what you want to say, but
7 you're subject to cross-examination from the folks in the
8 jury box, the attorneys, possibly me, possibly members of
9 the public. It's not daunting. It's not scary, but it's
10 something you want to consider, whether you want to give
11 testimony from the witness stand or public comment, which
12 is three minutes, that you would give from the safety of
13 the podium back there.

14 So, that's just something for you to consider
15 during the break, whether you want to testify or give
16 public comment. And you're not under any obligation to do
17 either, but I'm not going to allow you to do both.

18 So, with that said, we're in recess until
19 five minutes after 7:00. We'll take a 15-minute recess
20 until 7:05, and then we'll come back with Mr. Barry and
21 Mr. Keyt's stipulation. We're in recess. Thank you.

22 (Recess.)

23 MR. KAINS: All right, we're back on the record.

24 Mr. Barry, you've indicated you have no further

1 witnesses to provide testimony?

2 MR. BARRY: And that's -- that's gonna slightly
3 change. I am going to -- to accommodate some potential
4 questions. I do have one more witness I'd like to call,
5 but be happy to take care of the stipulation now, if
6 that's okay.

7 MR. KAINS: Let's do the stipulation.

8 MR. BARRY: Okay, great. So, the Applicant
9 stipulates that it will provide a hundred percent of the
10 decommissioning cost estimates in the form of appropriate
11 financial assurance without taking into account salvage
12 value. So, we (microphone feedback disruption) that up
13 and, of course, that would apply only to the Coles County
14 portion, the three parcels that's the subject of this
15 application. But just to make it clear, that they agree
16 to provide a hundred percent of -- of the -- the cost of
17 decommissioning estimate out of the gate.

18 MR. KAINS: Is that correct, Mr. Keyt?

19 MR. KEYT: Correct and that's -- I believe the
20 stipulation is that it would be posted at the building
21 permit stage, as opposed to the commercial operation date,
22 but.

23 MR. KAINS: What was the last part you said? I
24 missed it.

1 MR. KEYT: It would be posted at the building
2 permit stage, as opposed to the commercial operation date.

3 MR. KAINS: Gotcha, okay.

4 MR. BARRY: That's acceptable.

5 MR. KAINS: Okay. And a stipulation, folks, just
6 a fancy word for an agreement. So, they're agreeing to
7 post full financial assurance from the get-go.

8 MR. KEYT: Yeah, correct. And then based on that
9 stipulation, I don't have decommissioning questions
10 because I don't need to ask any questions on that topic.

11 MR. KAINS: Okay, very good. All right, then --
12 then you may call your next --

13 MR. BARRY: Thank you. I'd like to ask Mr. Will
14 Fischer to step up to the witness stand.

15 (Pause.)

16 MR. BARRY: And just to be clear, he's going to
17 be a fact witness. We're not going to attempt to
18 establish his position as an expert.

19 MR. KAINS: Can we do this in five minutes?

20 MR. BARRY: I -- my -- my part will be less than
21 five minutes, sir.

22 MR. KAINS: Because that's all he gets because
23 he's not -- unless you're from around here?

24 MR. FISCHER: I'm not.

1 (Witness sworn.)

2 MR. KAINS: Very good, thank you.

3 Go ahead, Mr. Barry.

4 MR. BARRY: Good evening, Mr. Fischer.

5 THE WITNESS: Good evening.

6 WILL FISCHER,

7 called as a witness on behalf of the Applicant,

8 being first duly sworn,

9 was examined and testified as follows:

10 DIRECT EXAMINATION

11 BY MR. BARRY:

12 Q. Could you please state your name for the record
13 and spell it.

14 A. Will Fischer, W-i-l-l, Fischer, spelled
15 F-i-s-c-h-e-r.

16 Q. Mr. Fischer, what is your position of employment?

17 A. I'm vice president of development for Earthrise
18 Energy.

19 Q. And as part of that position, are you familiar
20 with the financial issues associated with the company?

21 A. Yeah, I'm -- I participate as part of the senior
22 management team, and so I'm privy to the, you know,
23 financial health of the company and some of the related
24 decisions.

1 Q. And by the way, do you have an undergraduate
2 degree?

3 A. I do, I have a bachelor's of science in
4 engineering from Washington University in St. Louis.

5 MR. BARRY: Go Bears.

6 THE WITNESS: (Laughs.)

7 MR. BARRY: That's -- I don't have anymore
8 questions for this witness.

9 MR. KAINS: All right, very good. All right,
10 he's going to be discussing or answering questions on the
11 financial wherewithal of this company?

12 MR. BARRY: Yeah, we're -- we're making him
13 available in case anyone wants to ask questions about the
14 background of the company or finances, etc.

15 MR. KAINS: Okay, questions about the company
16 itself. Mr. Fischer is part of the management team.

17 First questions come from members of the
18 committee. Mr. Cox?

19 CROSS-EXAMINATION

20 BY MR. COX:

21 Q. Who is the primary investor of Earthrise? Is
22 that Vision Ridge?

23 A. Yeah, Earthrise is a hundred percent owned by
24 Vision Ridge Partners.

1 Q. I understand Vision Ridge had planned on selling
2 off their primary investment of Earthrise earlier this
3 year and that didn't come to fruition, is that true?

4 A. Yeah, that's correct. You know, private equity
5 companies like Vision Ridge Partners own a number of
6 different portfolio companies, Earthrise being an example
7 of one. And private equity companies will often take
8 those companies out for sale if they see that the
9 conditions for sale are right. We found that the
10 macroeconomic conditions earlier this year unfavorable and
11 so the sale was not completed.

12 That said, the company is in a very strong
13 position from a cash flow prospective. We have a healthy
14 balance sheet, and we have years of runway or cash going
15 forward.

16 Q. And what would happen to this project if -- if
17 Earthrise were to be sold during the construction phase or
18 after it was built?

19 A. Potentially, a sale wouldn't have any impact on
20 this project. I can't really speak to the specifics of
21 the sale. Sales can take many different types of formats.
22 Each of our project companies serves to be essentially
23 kind of its own business. So, the Glacier Moraine Solar
24 Project is one phase of a -- of a larger project between

1 Coles and Cumberland Counties that operates essentially
2 as -- as a standalone business. So, to go through the
3 financing process and get built, you know, you have to
4 establish just like when you would when you raise money
5 for a mortgage that the project company will be able to
6 pay its lenders, pay its bills, relative to its income
7 over its useful life.

8 So, all of our project companies are able to
9 operate on their own. And so, they have that sort of
10 insulation for many potential other sales or changes in
11 that -- in that way, so.

12 Q. Would the sale of the company have any bearing or
13 any change on our agreement that -- that the County would
14 have with the construction or the maintenance or the
15 decommissioning of the project?

16 A. Yeah, in the case of a new owner of Earthrise or
17 a new owner of the project, that owner would assume all of
18 the, you know, the existing agreements that come along
19 with the protect. So, they would be bound by the same
20 obligations that the project company, as a subsidiary of
21 Earthrise, is bound by today. So, that would include the
22 obligation that we have to our landowners, the obligations
23 that we have to the State of Illinois, for example, with
24 the Agricultural Impact Mitigation Agreement, the

1 obligations to the County, through a -- any sort of, you
2 know, permit or, you know -- you know, conditions
3 associated with that. So, those would all carry forward
4 with the project in the event of a sale.

5 Q. Are you involved in other applications -- solar
6 applications in Illinois?

7 A. Yeah, my -- my team is responsible for securing
8 the land and the local entitlements for all of our solar
9 projects under development.

10 Q. And you only have -- you have one in Gibson City
11 area, where are the other ones?

12 A. Yeah, there's the project in -- in the Gibson
13 City area is two phases, totalling 270 megawatts and
14 that's about 58 percent completed construction-wise. We
15 have, you know, the projects under discussion tonight
16 across Cumberland/Coles Counties. We have a project
17 proposed in Vermilion County. And then we have projects
18 under development in Will County.

19 Q. Have you ever had an application denied in
20 Illinois?

21 A. Not that I'm aware of.

22 Q. What would you do if this Coles County Board
23 denied your application at this --

24 MR. BARRY: Hold -- yeah, I'm just gonna -- I

1 respect the question, but I'm just going to -- I need to
2 raise this and make sure that Mr. Fischer doesn't say
3 anything that might be protected by the attorney-client
4 privilege. So I -- again, I encourage you to answer, but
5 just be -- I want to be -- make sure you're -- that you're
6 aware of revealing of any confidences.

7 MR. KAINS: All right, the question is what would
8 you do if the Coles County Board denies the application?

9 THE WITNESS: Yeah, I --

10 MR. KAINS: Mr. Fischer, if you can personally
11 answer that, or if you want to consult with your attorney.

12 THE WITNESS: I mean, we don't have a -- a plan
13 in place at this point. You know, if the board were to
14 vote against this project, I think we would work with our
15 attorney to evaluate the options forward at that point.

16 MR. COX: Okay. Thank you.

17 MR. KAINS: All right, very good. Thank --

18 MR. COX: That's all the questions I have.

19 MR. KAINS: Thank you, Mr. Cox.

20 Any other questions from members of the
21 committee? Mr. Clayton?

22 CROSS-EXAMINATION

23 BY MR. CLAYTON:

24 Q. So, I want to speak toward the good neighbors, I

1 think you called -- the good neighbors act or committee or
2 whatever --

3 A. The good neighborhood agreements, uh-uh.

4 Q. So, that takes profit to do that. I'm -- I'm
5 assuming that your profits would pay for things like that.
6 My questions are, has your potential to make profits on
7 this project been affected by any of the executive orders
8 by our President, has there's been any -- any changes of
9 any laws, and with the advent of we're trying to bring a
10 bunch of coal-powered generation plants either back online
11 or we're going to start those up because I've always heard
12 that alternative energy cannot compete with natural things
13 like gas and coal and oil. So, I know it's a long,
14 drawn-out question, I apologize.

15 A. No, it's a great question. We get -- we get
16 asked this quite often. I think I'll try to answer in
17 parts.

18 Q. That's fine, thank you.

19 A. Just let me if I'm doing an all right job.

20 So, with regards to the One Big Beautiful Bill --
21 we'll start there -- so, we've been tracking that really
22 closely. We've spent a lot of time this summer. It's
23 been a busy summer keeping our tabs on the various
24 versions of that legislation as it moved between the

1 committees in the House and the Senate and then was
2 eventually signed by the President. At any point, you
3 know, we were putting in time over the weekend to analyze
4 it and to make sure that we had a plan in place to
5 consider any potential, you know, that that current form
6 of the legislation at that point in time.

7 So, we've done an extensive analysis on the bill.
8 We feel really good about where we are positioned and the
9 changes that were made in that bill. We've made -- we've
10 made sure that our pipeline of projects, you know, can --
11 can, you know, basically can continue as planned, despite
12 the changes made in that bill. And, yeah, it doesn't have
13 any -- we don't foresee any impacts on the projects that
14 we're developing today.

15 Part of that is due to Earthrise's unique
16 business model. We're utilizing our natural gas-fired
17 power plants to accelerate the process of getting access
18 to the -- to the power grid, which is unique to Earthrise
19 and, you know, very differentiated from some of the other
20 utility-scale power plant developers that you might see.

21 I think with regards to kind of broader energy
22 types and goals, I mean, we -- we're not necessarily, you
23 know, super favor -- favorable of one energy type or
24 another. We don't receive any direct payments or grants

1 or subsidies from the federal government as a company.
2 Wind and solar power plants, you know, some changes have
3 been made to this, but generally they -- they create tax
4 credits. If you were to install one of your rooftop, you
5 could, you know, use that as an offset against your what
6 you pay Uncle Sam the -- you know, that April following.
7 And, you know, there's incentives in different programs
8 that benefit energy of all types, you know. So, whether
9 it be nuclear or solar or wind or, you know, whatever --
10 whatever power is.

11 So, we -- we certainly -- so, I guess overall, a
12 long-winded way of saying our projects are gonna stay on
13 the track. We've got a path forward. We've done the
14 analysis of the impacts of that bill. We feel very good
15 about where we are at this point.

16 Q. So, specifically, about the coal generation
17 plants, if they would bring a bunch of those online and
18 build -- I think there's supposed to be three major ones
19 in the works right now -- you'd still be able to compete
20 with those?

21 A. Yeah, I mean, the -- the advantages of solar and
22 wind power is there's no marginal cost of fuel. So, you
23 know, the sun is free. The wind is free in that regard.
24 You know, the natural gas-fired power plants that we run

1 are very critical assets to the power grid, but they're
2 relatively expensive to run. And as a result, they --
3 they tend to run when power prices are already very high.
4 Coal plants are a base load resource so, you know, they
5 tend to -- they have some variability where if power
6 prices are high, they can maybe notch up their output a
7 little bit here or there.

8 Wind and solar and coal I don't think necessarily
9 compete on the grid, per se. I think, you know, we -- we
10 certainly as a country are in need of more power
11 production, more power plants, and we're seeing a dramatic
12 increase in power demand in the coming years driven by a
13 number of different factors. So, I'm not -- I can't speak
14 to these -- both power plants in particular, but, I mean,
15 we certainly are in the business of building power plants
16 and producing power.

17 Q. Your -- your answer has made me form another
18 question, I apologize.

19 A. Uh-oh.

20 Q. But you're saying that the peaker plants are
21 giving you the access to the grid. Are you going to use
22 the solar as a peaker energy source or is it just you're
23 going to be to able to feed the grid from those peaker
24 plants?

1 A. Yeah, most of what the -- the largest impediment
2 to new power plants getting online is countries getting
3 access from the transmission operators to get the
4 permission to push electrons onto the grid, and there's
5 a yearslong process of proposed power plants, many of
6 which you probably have heard from in this room. Many of
7 them wait five to ten years to get -- get the permission
8 or the rights.

9 By owning our -- so, our gas-fired power plants
10 have permission to generate power. They operate during
11 times of critical need and they take priority, each of
12 these power plants that we've proposed and the ones that
13 we have under construction. The solar is simply -- it's
14 like a vacation rental home. You know, if you're not
15 using it, why not, you know -- you know, bring someone
16 else in to -- to use it while you're not there. So, if
17 the gas plant isn't running and these -- these plants
18 don't run that often, but the solar power plant can run.
19 So, they complement each other well in that regard.

20 We can't really dispatch the solar. You know,
21 it's just if it's a sunny day or not, you know, and the
22 gas plant isn't running, then the solar can push out
23 electrons to the grid.

24 Q. Last question: If Congress does away with

1 production tax credits, are you still in good shape?

2 A. I mean, that's -- again, that's the -- a lot of
3 the changes that we saw in the One Big Beautiful Bill were
4 the sunseting of the -- the existing kind of tax credit
5 incentive framework for -- that's largely enjoyed by wind
6 and solar power, amongst other fuel types. We've analyzed
7 that bill, and we feel confident that even if they sunset
8 the credits as -- as -- as happened in -- in that bill
9 that was signed on July 4th, that we have plan forward for
10 these projects. We've made sure to, you know, essentially
11 to make -- make the -- make the plans, make the
12 investments now to ensure that we have a path forward
13 here.

14 MR. CLAYTON: Okay, thank you very much.

15 THE WITNESS: Sure.

16 MR. KAINS: Thank you, Mr. Clayton, for your
17 questions.

18 Any other questions from members of the
19 committee? Mr. Chairman?

20 CROSS-EXAMINATION

21 BY MR. WATTS:

22 Q. Yes, Mr. Fischer, Earthrise is a public benefit
23 corporation which is, I believe, a legal designation, is
24 that correct?

1 A. (Nods head.)

2 Q. So, what -- how does that make a difference in
3 any of your companies? Are they a certain percentage that
4 must be made available as grants or other kinds of
5 community investments?

6 A. It's -- it's -- it's not -- it's -- so, relative
7 to a typical limited liability company would just simply
8 have like a fiduciary obligation to its owner to, you
9 know, make profit. A nonprofit, you know, 5123 is
10 different. A public benefit limited liability company is
11 simply stating that we have dual objectives as an
12 organization, both to provide a profit to our investors or
13 to our owners, as well as to provide, you know, kind of a
14 public good to -- to ensure that we're giving back to the
15 communities that we're operating in, that we're being good
16 neighbors, that we're building trust in the areas that we
17 operate, that that's a core part of who we are and a part
18 of our DNA.

19 Q. But are there metrics? So, can you define or are
20 they defined --

21 A. They're -- they're not defined. You know, you
22 don't have to like, you know, meet some percentages or
23 something of that sort.

24 MR. WATTS: Okay, thank you.

1 MR. KAINS: Thank you, Mr. Chairman.

2 Any other questions from members of the County
3 Board? Yes, Mr. Doty?

4 CROSS-EXAMINATION

5 BY MR. DOTY:

6 Q. This may be more mechanical, I was -- I was
7 absent earlier, but have you chose a contractor?

8 A. We are in the process of vetting a contractor for
9 this project, but we have not signed the -- an agreement
10 to a -- to give them the work to construct the project
11 yet.

12 Q. Okay, and will the peaker plant at Neoga be
13 decommissioned if the solar farm goes online?

14 A. No, like I was saying earlier, the -- the
15 gas-fired power plants have a --

16 Q. Just gonna stay there?

17 A. -- natural lifecycle of their own. You know,
18 that plant was commissioned in 2000. You know, at some
19 point it's going to retire. There's -- and that's being
20 forced by a number of different things. There's the
21 obsolescence of the technology. There's the Clean Energy
22 Jobs Act and the emissions standards in that bill. But,
23 no, the two power plants are meant to work in tandem.

24 MR. DOTY: Okay.

1 MR. KAINS: Any other questions from the County
2 Board? Mr. Shook?

3 CROSS-EXAMINATION

4 BY MR. SHOOK:

5 Q. You talked about you guys are doing okay with
6 money and stuff like that. How much money you got?

7 (Audience members laughing.)

8 A. All I can say is, you know, we're in a really,
9 really healthy position. You know, earlier this year, at
10 the end of May, we announced that we had closed over six
11 hundred million dollars in financing to support the --

12 Q. Six hundred billion or million?

13 A. -- six hundred million -- to support the
14 construction of the project we've referenced a couple
15 times that's over in Gibson City. So, you know, it's only
16 the healthy companies that are able to demonstrate to a
17 stable of different investors that, you know, that they
18 should invest in us. We answered all their what-ifs, we
19 made sure that those investors felt comfortable that over
20 the 35, 50-year useful life of that project that they
21 would see the return.

22 So, the company's in a -- in a good position.
23 Again, like I said, we have a strong balance sheet and we
24 have years of runway.

1 Q. So, you guys are comfortable, then?

2 A. We feel good about the -- the -- the health of
3 the company right now.

4 MR. KAINS: Thank you, Mr. Shook.

5 Any other questions from County Board members?

6 Questions from members of units of local
7 government, including school districts?

8 Questions from members of the public who are
9 either opposed to or neutral on the application?

10 (Pause.)

11 MR. KAINS: All right, very good.

12 Coles County staff and consultants, Mr. Lockhart?

13 MR. LOCKHART: No, sir.

14 MR. KAINS: Mr. Keyt, Ms. Rives?

15 MR. KEYT: No questions.

16 MR. KAINS: All right, and final questions -- oh,
17 redirect examination. Mr. Barry, do you have any
18 questions for your witness?

19 MR. BARRY: No, sir.

20 MR. KAINS: Very good. Final questions come from
21 members of the committee. Very good.

22 Thank you, Mr. Fischer, you may step down.

23 THE WITNESS: Thanks.

24 MR. KAINS: All right. Mr. Barry, dare I say

1 call your next witness?

2 MR. BARRY: You can say it, but my answer will be
3 I don't have one.

4 MR. KAINS: All right, very good. So, the
5 Applicant has rested its case, and now it is time to hear
6 from members of the public. I would like just a show of
7 hands, initially, folks who are in favor of the
8 application, in favor of the project, who wish to testify,
9 who wish to come up here on the witness stand --

10 (Audience members laughing.)

11 MR. KAINS: -- and be subjected to questioning
12 from Mr. Shook and his friends.

13 (Audience members laughing.)

14 MR. KAINS: Rick, I say that in -- in love.

15 MR. SHOOK: That's quite all right.

16 MR. KAINS: Is there anyone in favor who wishes
17 to testify? There will also be a portion of the public
18 hearing for public comment as well.

19 All right, is there anyone who wishes to testify
20 who is opposed to the project? Mr. Sherman. Is there
21 anybody else who is opposed who wishes to testify?

22 All right, Mr. Sherman, you may come up. And I
23 know that you are a Coles County resident and you,
24 according to the rules -- let me make sure -- 30 --

1 30 minutes --

2 MR. SHERMAN: Okay.

3 MR. KAINS: -- to testify.

4 (Pause.)

5 MR. SHERMAN: Okay.

6 (Witness sworn.)

7 MR. KAINS: Very good, thank you. Go right ahead.

8 MR. SHERMAN: Okay, let me get phone out, too.

9 MR. KAINS: I'll give you -- how about if I give
10 you a five-minute and a one-minute warning, would that be
11 all right?

12 MR. SHERMAN: That's -- yeah, that's fine.

13 MR. KAINS: All right.

14 MR. SHERMAN: I don't think this -- whoops. I
15 don't think will this take the whole 30 minutes.

16 TOM SHERMAN,

17 called as a witness in opposition,

18 being first duly sworn,

19 was examined and testified as follows:

20 TESTIMONY

21 MR. SHERMAN: Just to get started off, just to
22 make sure with the application, this -- I had to do it in
23 two binders because I wasn't strong enough to put it all
24 in one binder and it kept falling apart. So, I brought it

1 only for reference in case I get asked questions to go to
2 it. Most of this stuff I have is in notes. Just to --
3 and I'm gonna reiterate some stuff that's already --
4 already out there, and I mostly talking to County Board
5 members and to the audience as well, but just mostly to
6 reiterate some things that have already been said.

7 We're talking about, for the County part of it,
8 three parcels. There's really only two groups of people
9 that are comprising these 132 acres that -- that are in
10 question here. Cumberland County has approved their --
11 their part of the application. Obviously, we're here in
12 meetings -- here in hearings for Coles County. Shelby
13 County has yet to do anything with it, and the City of
14 Mattoon, I think, is gonna be taking it up the second
15 Tuesday in September, I believe.

16 The 30-year lifespan with two ten-year options
17 for 50 years -- that's a long time. And all the
18 projections, all the dollar amounts, all the jobs,
19 anything that has to do with numbers, I highly question
20 because that -- you know, you can't hardly predict what's
21 gonna happen next week, let alone 50 years from now.

22 We already talked about that. Mr. Clayton,
23 Mr. Cox, you stole my thunder on several of the things
24 here. So, I'm gonna skip that in lieu of time here.

1 2.4 of the application on Page 14 talks about --
2 and I'm quoting -- "not expected to have a negative impact
3 on adjacent property values," end quote. And here, I may
4 be getting out of -- out of turn, and I apologize. There
5 is an LSU study and a Virginia Tech study that shows the
6 opposite of that. It shows there is a negative impact on
7 property values. And I can cite that if you would like me
8 to, or I can just make reference to the -- the dollar
9 amounts that are in place.

10 MR. KAINS: Do you have the years of the studies?

11 MR. SHERMAN: One of them is 2025 and the other
12 one, 2024.

13 MR. KAINS: Okay, very good.

14 MR. SHERMAN: The Virginia Tech -- this is the
15 summary of it: They started by identifying 3,699
16 large-scale solar sites. The researchers then found
17 residential homes in agricultural or vacant land sites
18 near each installation by combing through nearly nine
19 million real estate transaction for their study.
20 Residential homes within three miles of a site lost a
21 small -- they say "small" -- amount of value: 4.8 percent
22 on the average. So, on the average, 4.8 percent decrease
23 in their value.

24 The LSU study was 2024. The final -- and I'm

1 quoting here -- the final conclusion says, "The empirical
2 literature suggests that utility-scale solar development
3 has the potential to reduce housing values for homes
4 within approximately a half-mile of these installations.
5 Empirical estimates suggest a reduction of one-and-a-half
6 percent to 6.9 percent in housing values. Studies that
7 analyze housing values in rural areas specifically find
8 that utility-scale solar is associated with a
9 two-and-a-half percent to 5.8 percent reduction in housing
10 values." So, that contradicts a little bit of what was in
11 the application.

12 I understand there was a -- a verbal agreement --
13 and, Mr. Keyt, I don't know exactly what the technical
14 lawyer term for it is -- but the decommissioning part, I
15 hope it's somewhere in the record that Coles County will
16 have a decommissioning plan because it's not in here.
17 Nowhere in these 800-and-some pages is there a
18 decommissioning plan for Coles County. There is for
19 Cumberland County, but not Coles County.

20 Last night, we talked about eagles and bald
21 eagles, and in the application it says that they're in
22 there. I just want to make sure, you know, the eagles and
23 all that will be protected -- the birds and different
24 things. And I'll get to some more of that here in a

1 little bit.

2 But my question is, I'm not sure who to ask,
3 because the -- the gentleman last night was from ERM, but
4 for Earthrise, who is gonna check on this stuff? You
5 know, are there gonna be daily checks to make sure that
6 they're not nesting or migrating or whatever that is?
7 Who's checking on this? Are they self-reporting? Who are
8 they reporting it to? All of that kind of thing.

9 Which gets to something that I asked in the
10 questioning part about the complaints. I'm only bringing
11 that up because it wasn't in their application about how
12 or where to complain.

13 Mr. Royal asked the question -- I wanted to make
14 sure that it was said, if I understood it right -- that
15 Earthrise has not completed any projects -- solar panel
16 projects in the United States. I hope I'm saying that
17 right and if not, somebody can correct me. And if that's
18 the case, obviously they haven't done any decommissioning
19 either. So, just to put out -- that out there.

20 I'm not a scientist. I don't understand what
21 these panels are made out of, other than the silicon. I
22 don't know if that's hazardous. They say that it's not.
23 I understand that when the panels break, they crack.
24 There might be damage to the soil, possibly with glass

1 shards, that kind of thing. I -- I don't know what impact
2 that might have, how that's cleaned up, or how they --
3 they go about doing that.

4 Page 35 of their application says that it won't
5 be detrimental. Detrimental is in the eye of beholder.
6 Mr. Kains and I had the discussion yesterday about what,
7 you know, what's beneficial to me might be detrimental to
8 you. So, general welfare, we -- we went into this a whole
9 lot during the -- the wind turbine stuff. General welfare
10 means a lot of things to a lot of people. That could mean
11 your health. That could mean your wealth. That could
12 mean your, you know, what's aesthetic or is beautiful to
13 you. Beauty's in the eye of the beholder. General
14 welfare is in the eye of the beholder, too. So, I'll just
15 leave that there.

16 Glare is noted in several places and I asked this
17 last night about who's gonna monitor this. The ERM person
18 that answered this yesterday said to -- that would defer
19 to Earthrise. So, again, I just put that out there.
20 Who's monitoring this during the lifetime of these
21 50 years, 20 years, 30 years, take your pick at the
22 number.

23 Mr. Cox already addressed the fee schedule thing
24 that's on the application, the wind ordinance Page 15

1 and 16. So, I won't go there.

2 The bald eagles and the probability of
3 presence -- this is on the chart in their application that
4 there's a probability of presence of migratory birds for
5 15 noted species. And that that's anywhere from migration
6 to nesting, that that's a lot of things to be in -- in
7 account of. And Mr. Uphoff brought this up about the
8 Canadian geese last night. So, I just wanted to point
9 that out as well.

10 Just to kind of close here, there's a lot of
11 things that it -- that is lacking in this application. A
12 lot of things that we -- we've had questions about.
13 There's a lot in here, don't get me wrong. There's a lot
14 of information in here, but there is certain things in
15 there within the wind ordinance -- or the -- I'm sorry --
16 the solar ordinance that are not here in the application
17 that don't address that.

18 I'm a little bit puzzled of why there was not a
19 project manager to address questions to. I thought that
20 was gonna be part of it tonight.

21 So, with that, I'm done.

22 MR. KAINS: All right, very good. Thank you,
23 Mr. Sherman.

24 Questions for Mr. Sherman regarding his

1 testimony, first from members of the Planning and
2 Development Committee? Mr. Cox?

3 CROSS-EXAMINATION

4 BY MR. COX:

5 Q. Do you have any evidence that solar panels have
6 adversely affected the eagle populations?

7 A. No, I do not.

8 Q. Do you have any evidence that solar farms have
9 adversely affected goose populations?

10 A. Not that I'm aware of, not that's been in any
11 studies that I've read.

12 Q. Any other migratory birds?

13 A. No, not that I'm aware of.

14 MR. COX: Okay, thank you.

15 MR. KAINS: Thank you, Mr. Cox.

16 Any other questions from members of the committee?

17 County Board members, any questions for
18 Mr. Sherman regarding his testimony?

19 MS. ZIMMERMAN: I have a question.

20 MR. KAINS: Yes, Ms. Zimmerman?

21 CROSS-EXAMINATION

22 BY MS. ZIMMERMAN:

23 Q. You said the Virginia Tech study, I'm sorry, what
24 was the other one?

1 A. Louisiana State University, LSU.

2 Q. Okay.

3 A. And I can give you those web addresses at some
4 point, if anybody's interested in that.

5 MR. KAINS: Any other questions from members of
6 the County Board?

7 Questions from members of units of local
8 government, including school districts?

9 (Pause.)

10 MR. KAINS: Cross-examination, Mr. Barry?

11 MR. BARRY: No questions.

12 MR. KAINS: All right, very good.

13 Questions from interested parties, members of the
14 public? Mr. Sherman is opposed to the project or a
15 opposed to the application for the project. So, if you
16 are in favor of the application or neutral on the
17 application, you are entitled to ask questions. So, is
18 anyone in the public, any member of the public wishing to
19 ask Mr. Sherman questions who are in favor of the
20 application for the project or neutral? All right, very
21 good. Thank you.

22 Coles County staff and consultants, Mr. Lockhart?

23 MR. LOCKHART: No, sir.

24 MR. KAINS: Mr. Keyt, Ms. Rives?

1 MR. KEYT: I have very few --

2 MR. KAINS: Okay.

3 MR. KEYT: -- so.

4 CROSS-EXAMINATION

5 BY MR. KEYT:

6 Q. Mr. Sherman, how far do you live from the three
7 parcels that are at issue?

8 A. I live on the opposite side of the County. I
9 live in the northern part of Coles County. So,
10 probably -- oh, gosh -- maybe 12 miles, maybe.

11 Q. Did you -- in either of the Virginia Tech study
12 or the LSU study, did any of those indicate that there
13 would be a negative impact to property value to a property
14 that's 12 miles away?

15 A. No.

16 Q. Do you have a copy of those studies with you?

17 A. I -- I do not because I didn't think we're gonna
18 talk about property values and all that kind of stuff
19 based on our 30-minute recess last night, so that changed
20 all that. So, I do not, I apologize.

21 Q. Okay.

22 A. I do have the web addresses, though, if -- if
23 you're so interested.

24 MR. KEYT: In terms of just for the -- for the

1 record, if there is a decommissioning -- this isn't a
2 question for you, Mr. Sherman, I just want to make sure
3 that everybody understands -- if the project were to be
4 approved, there's a draft set of conditions that would go
5 into place. So, those draft conditions would include that
6 the Applicant would have to come to a decommissioning
7 agreement with the County, which would include a
8 decommissioning plan with the County and a decommissioning
9 cost estimate with the County. All of that is subject to
10 the County Board's approval of all of that. The plan and
11 the cost estimates are the subject to the County's
12 engineer's review and determination that those cost
13 estimates of the plan are accurate and correct, with
14 adjustments that may need to be made based on the
15 engineer's review of those -- the County's engineer, so.

16 And then that agreement, which comes into the
17 plan and the cost estimate, go to the County Board for
18 approval. I just want to make sure everyone understands
19 that. Yes, and Alex is gonna clarify what I said.

20 MS. RIVES: To that point, with regard to the
21 decommissioning plan agreement, your ordinance requires, I
22 believe, a proposed decommissioning plan be submitted with
23 the application. It's my understanding that the
24 Cumberland decommissioning agreement was submitted as in

1 the form of a proposed decommissioning plan. However, per
2 your ordinance, they -- a separate decommissioning
3 agreement and plan will be negotiated with the developer
4 and the County Board prior the issuance of any building
5 permit. So, that's something that is still to come if the
6 special use is approved.

7 MR. KAINS: All right, thank you, Ms. Rives.

8 Anything further, Mr. Keyt?

9 MR. KEYT: No, sir.

10 MR. KAINS: All right, then final questions come
11 from members of the committee.

12 All right, you want to say anything else,
13 Mr. Sherman?

14 MR. SHERMAN: Thank you for not objecting.

15 (Audience members laughing.)

16 MR. KAINS: Mr. Sherman, thank you --

17 MR. SHERMAN: Thank you.

18 MR. KAINS: -- very much.

19 MR. BARRY: I get the impression that's happened
20 before.

21 MR. SHERMAN: Oh, yeah.

22 MR. KAINS: We really appreciate your
23 participation in this public hearing, thank you.

24 Anybody else who is opposed to the application,

1 opposed to the protect who wishes to testify?

2 Anybody who is neutral who wishes to testify?

3 Written comments. Mr. Lockhart, do we have
4 written comments?

5 MR. LOCKHART: Those are all on the website.

6 MR. KAINS: They're all on the website. And as
7 such, they will be -- how do you enter those into the
8 record, Mr. Keyt?

9 MR. KEYT: There'll be a part of the record
10 because they've been submitted to the County in one form
11 or the other, either to us or to Mr. Lockhart. We
12 don't -- I think the committee's preference is not to have
13 to read all of them. They're all available, and they are
14 in the record just for the record's purposes.

15 MR. KAINS: Okay, about how many are there,
16 Mr. Lockhart, do you know?

17 MR. LOCKHART: There are like four.

18 MR. KAINS: Four?

19 MR. LOCKHART: Yes.

20 MR. KAINS: Okay.

21 MR. LOCKHART: There's a petition and three
22 postcards, so that's about it.

23 MR. KAINS: Okay. Anybody in the room submit a
24 written...

1 MR. KEYT: I think Mr. Watts has a comment.

2 MR. KAINS: Okay, yeah, Mr. Watts?

3 MR. WATTS: There are letters submitted as part
4 of the packet that we received from Earthrise.

5 MR. KAINS: Oh, okay.

6 MR. WATTS: Letters in support.

7 MR. KAINS: Those are letters in support of your
8 application, then?

9 MR. OZMEN: Correct.

10 MR. KEYT: And those are already in the record
11 along with -- and -- and in all those -- and on the
12 website because the application has been posted to the
13 website.

14 MR. KAINS: Okay. Thank you, Chairman, for that
15 clarification.

16 MR. BARRY: And one of those will include a
17 letter that we submitted today. It was dated yesterday
18 from the Superintendent of the Neoga School District.

19 MR. KAINS: Okay, very good. Anybody in the room
20 submit a written comment? Just out of curiosity.

21 (Hands raised.)

22 MR. KAINS: Okay, two persons. Sir, what is your
23 name?

24 MR. McNITT: Andrew McNitt.

1 MR. KAINS: Andrew McNitt, yes, Professor McNitt,
2 right?

3 MR. McNITT: Yes, at one point in time.

4 MR. KAINS: Yes, and could we have a spelling on
5 your last name, sir.

6 MR. McNITT: M-c-N-i-double t.

7 MR. KAINS: Okay. And, ma'am, your name?

8 MS. CLAUSING: I'm Karen Clausing, and I wrote a
9 note on a postcard submitted to -- by Robin Murray that I
10 seconded her comments.

11 MR. KAINS: Okay. How do you spell your last
12 name?

13 MS. CLAUSING: It's Clausing like "Santa Claus"
14 with i-n-g.

15 MR. KAINS: Okay. You got that?

16 COURT REPORTER: (Nods head.)

17 MR. KAINS: Okay, very good. All right, the
18 written comments that have been submitted are part of the
19 record and may be considered by the committee and,
20 ultimately, the County Board.

21 Next on the list of things to do: Evidence from
22 Coles County staff and consultants, Mr. Keyt, Ms. Rives.

23 MR. KEYT: There's nothing on our end.

24 MR. KAINS: Okay, very good. All right, do you

1 have any rebuttal evidence, counsel?

2 MR. BARRY: No, sir. No, sir.

3 MR. KAINS: Okay, very good. All right, it's
4 time for public comment. Always the best part of a
5 meeting. Public comment will have -- there will be two
6 types of public comment. There's public comment right now
7 on this project, and then after the vote on this, there
8 will be public comment on anything else pertaining to the
9 Planning and Development Committee.

10 Now, it is time for public comment. We'll start
11 with folks who are in favor and then go to folks who are
12 not and then folks who are neutral.

13 All right, Mr. -- or Professor McNitt, and then
14 Ms. Clausing. All right, public comment is a three-minute
15 time period.

16 MR. McNITT: I will be brief.

17 MR. KAINS: All right, very good, sir. Go right
18 ahead.

19 MR. McNITT: I rise to support the Glacier
20 Moraine Project. I -- it is important because it will
21 help to diversify the economic base of Coles County and it
22 will meet the demands for increasing demands for electric
23 power. It will do so in an environmentally-friendly and
24 easily-reversible manner, if there is a -- no degrading,

1 if there are pollinator-friendly plants planted there, and
2 if shelter beds are included.

3 When completed, it will be less damaging than
4 agribusiness would be to the environment. I would remind
5 you that we live in what is essentially a corn and soybean
6 desert, that regularly the ground is bare for most of the
7 year, that it is plowed in the spring, it is treated with
8 herbicides, and it's treated with fertilizers, all of
9 which will runoff by the more serious way than any
10 vegetative field, which is what you're going to get. And
11 I think it would be a good idea, and I hope you sign it.

12 MR. KAINS: All right --

13 MR. McNITT: Thank you.

14 MR. KAINS: -- thank you, Professor.

15 All right, Ms. Clausing. Just a reminder, you
16 have three minutes.

17 MS. CLAUSING: Okay, I won't talk nearly that
18 long.

19 But I listened with interest about what the site
20 maintenance and what the plans were for the -- the
21 Pollinator-Friendly Solar Site Act and that the -- you
22 know, that this a 50-year estimated project.

23 My family farm had a similar situation with a
24 weather monitoring site that began in the 70s and was

1 decommissioned about 2023. So, 2024 was the first year
2 that that area was returned to crop production. And the
3 farmer renting our -- that land said he could tell exactly
4 where that weather station had been because the crop
5 yields were so much higher than the rest of the field.

6 So, you know, I -- we've dwelled a lot on the
7 construction, the disruption of -- of the soil, we've
8 dealt a lot on just exactly what's gonna be planted there.
9 In the case of my family's site, it was just trusty grass
10 that was planted in there, nothing special. So, you know,
11 talking about cover crops and native vegetation seems like
12 it could be even more optimal for the land to regenerate,
13 than the experience of my family's farm. Thank you.

14 MR. KAINS: All right, thank you, ma'am.

15 Anyone else in favor of the project who wishes to
16 give public comment?

17 Folks who are opposed who wish to give public
18 comment? Mr. Uphoff, yes, sir.

19 (Pause.)

20 MR. KAINS: And just a reminder, sir, you'll have
21 three minutes.

22 MR. UPHOFF: Okay.

23 MR. KAINS: And I'll give you a warning at about
24 30 seconds, how's that?

1 MR. UPHOFF: All right, thank you.

2 I have mixed feelings on this. I have good
3 neighbors. And I'm for solar, but not on United States
4 farm ground. With that being said, the young American
5 farmer has now a bigger obstacle -- solar. Those grain
6 farmers that have turned -- that have now leased their
7 ground to solar that have pockets full of taxpayers'
8 money, they will be at all of the land auctions, buying
9 all of the ground. The young farmer will be strictly a
10 spectator. In my opinion, no one will be able to outbid
11 solar money that comes out of our pockets.

12 When -- when's enough's enough, the young farmer
13 will be outbid at land auctions, outbid for cash rent.
14 The American farmer suffers in the long run because of
15 this.

16 In the spring, my wife and I went to Salt Lake
17 City. We flew over thousands of acres of barren ground.
18 In my opinion, this is the proper place to be putting
19 solar, not on some of the best farm grounds in the world.

20 The question was asked what solar panels are made
21 out of. I did a little study of my own. It is heavy
22 metals in this -- in the solar panels. The answer that I
23 come up with in my studies were, yes, metals in the solar
24 panels include lead -- and let me see -- cadmium, silver,

1 and even arsenic --

2 MR. KAINS: You have 30 seconds remaining, sir.

3 MR. UPHOFF: -- all hazardous. We are putting
4 these solar panels right in the middle of Mattoon
5 watershed.

6 There was a tornado this spring in front of -- or
7 on the south side of me, I -- a half-a-mile. Now, they're
8 within a quarter-mile from my house. Damage happens.
9 This stuff will -- I'm sorry, I'm getting off track --
10 will go into ground.

11 MR. KAINS: Your time is up, too, sir.

12 MR. UPHOFF: Okay.

13 MR. KAINS: But thank you, Mr. Uphoff, for your
14 participation in this public hearing.

15 MR. UPHOFF: Thank you.

16 MR. KAINS: Appreciate your questions yesterday
17 and your comment this evening.

18 Any other folks who are opposed to the
19 application for the project who wish to give public
20 comment?

21 Folks who are neutral who wish the give public
22 comment?

23 Public comment is closed.

24 At this time, now, all of the evidence is closed.

1 So, only a couple of things left to do. This committee
2 gives the opportunity to make a closing statement.

3 Mr. Barry, you will have the opportunity to give
4 a closing statement and any other person who wishes to
5 give a closing statement may.

6 Introduction of new evidence is not permitted. A
7 closing statement just summarizes the evidence. I don't
8 anticipate anybody's closing statement going longer than
9 five minutes.

10 Mr. Barry, do you -- you'll get to go first
11 because you have the burden of proof in proving that you
12 have -- that the application has met all of the compliance
13 terms of the County ordinance. Do you wish to give a
14 closing statement?

15 MR. BARRY: Yes.

16 MR. KAINS: Okay. Do you think you can do it in
17 five minutes?

18 MR. BARRY: Absolutely.

19 MR. KAINS: Okay. Well, that's -- that's good
20 news. All right, you may go ahead with your closing
21 statement.

22 MR. BARRY: Thank you, Mr. Kains.

23 Thank you, Mr. Chairman, members of the
24 committee, members of the board, Mr. Keyt, Ms. Rives,

1 the -- members of the audience.

2 I want to -- there's been a lot of discussion, a
3 lot of great questions here tonight and last night. A lot
4 of issues that were raised. And at this time, I want to
5 turn us back to focus on what is in front of us, what is
6 relevant, what -- what we -- what this committee is -- is
7 looking at.

8 And -- and that is the application materials,
9 which is something I mentioned in my opening statement
10 yesterday. You -- you saw -- many of them are still on
11 the table over here with Mr. Keyt. It's -- it's a
12 significant amount of documentation. It consists of a
13 couple pages of appendices. So, it -- more than a couple
14 pages, it's the list that's over a page long. And -- and
15 that is all evidence.

16 And -- and then you heard the testimony from the
17 witnesses from Earthrise, the Applicant, last night and
18 tonight. And at the end of the day, the question is
19 whether that evidence is sufficient to satisfy the
20 requirements in the solar ordinance, this document right
21 here, that the County has adopted. And in particular, if
22 you dive into the -- the -- the middle of the ordinance,
23 there are factors that this committee is supposed to
24 consider, is directed to consider, and to evaluate whether

1 an application is entitled to a permit. And I submit, on
2 behalf of the Applicant, that the evidence in those
3 documents, as well as the testimony that was provided
4 here, is more than sufficient to satisfy those standards.

5 And the other thing I want to point out is that
6 once that evidence is submitted, it's part of the record.
7 And then the question is, did anyone submit any
8 counterevidence that would undermine the evidence that was
9 submitted? And I -- again, I think it is pretty clear
10 that that has not happened. We had a lot of testimony, we
11 had a lot of opinions discussed. But there -- there was
12 no additional evidence that was of significance that was
13 submitted.

14 So, just real quickly, I'll take you through the
15 factors. The first one is -- relates to health, safety,
16 and general welfare. Well, we heard from Mr. Horn about
17 how the -- what the panels consist of and -- and the load
18 rating and how they can operate safely. We heard from
19 Dr. Loomis and from Mr. Ozmen about how the project will
20 promote the general welfare, that it will provide
21 significant benefits to the community, that more than
22 offset any potential impacts of -- on the counter side.

23 The -- the second factor relates to will the
24 project have an impact on the neighboring parcels,

1 essentially. And I think the -- the answer is a
2 resounding no, it will have no impact. For example,
3 Mr. Horn made it very clear that the -- the project, the
4 inverters are not producing any noise that will go beyond
5 the -- the boundary lines of the existing three parcels.

6 And by the way, remember we're only talking about
7 three parcels here. It's just -- and I know it's been
8 said over and over, but this is three parcels, one small
9 part of a larger project.

10 And then we talked about -- Mr. Ozmen referenced
11 Appendix D, the Property Value Impact Study. There was
12 not a lot of discussion about it, but it's a lengthy
13 document submitted as part of the application. And -- and
14 that -- and that admin document looks at actual sales
15 around existing solar projects, it evaluates that data, it
16 looks at studies that were -- other studies that were
17 done, and it also looks at interviews of real estate
18 agents and -- and assessors, including many in Illinois,
19 including sales in Illinois, and it's done by a company --
20 and the author is an MAI-designated appraiser, which means
21 that's the highest level you can get as an appraiser. And
22 the bottom line is that study finds there simply is no
23 negative impact.

24 And I -- I know that Mr. Sherman referenced a

1 couple studies here tonight, but, you know, one of those
2 studies is very recent out of Virginia Tech. But he -- he
3 did not mention that that study shows no impact on the --
4 on sales in the Midwest.

5 By contrast, the -- another recent study, I think
6 it was done last year, that's included in the report, the
7 submitted -- the CohnReznick report indicates that the --
8 the solar projects actually have a -- provide for an
9 increase and a slight increase in property values. And
10 that study examined a lot of transactions in the Midwest,
11 including those, again, in Illinois. So, I -- I don't
12 want to belabor that, but I think that the standard has
13 been met more than sufficiently by the CohnReznick study,
14 that it hasn't been countered by any -- any evidence.

15 The -- the next factor, it relates to impeding
16 the development of nearby properties. This -- I think you
17 heard from more than one witness that the -- the project
18 will operate in a way that won't impact neighboring
19 properties.

20 An additional factor is it will have adequate
21 public utilities, access roads, and drainage. Well, we
22 talked quite a bit about drainage. Mr. Steffen's talked
23 about it, Mr. Horn talked about it. And at the end of the
24 day, they testified that the project will -- will not be

1 allowed to increase the drainage flow on the neighboring
2 property because that's what the Illinois drainage code
3 says. It doesn't allow it. And so, the -- the project
4 will have access roads -- solution to access roads as well.

5 The final ones are relating to the (microphone
6 feedback disruption) and that the project's going to have
7 access roads, again, and -- and sufficient ways to get in
8 the -- in and out of the project. The -- there's a
9 reference to the comprehensive plan that -- that the
10 project will -- is consistent with that in this -- in this
11 area. And then the project, ultimately, will otherwise
12 conform to the other applicable regulations at the State,
13 local, and federal levels.

14 So, with that, again, I just want to remind
15 everybody that the focus is on whether -- and the question
16 pending tonight is whether the application materials and
17 the evidence that's submitted in the record demonstrates
18 that the project in the application meets the standards
19 under the ordinance, under this document. That should be
20 the focus. And I think, again, I submit on behalf of the
21 Applicant that the answer should be a resounding yes.

22 And with that, once again, I thank you for
23 your -- the accommodations. Thank you for the questions.
24 Thank you for the opportunity to present on behalf of the

1 Applicant. And we respectfully ask for a vote in favor
2 of -- a recommendation in favor of the permit for the
3 project.

4 Thank you, again, Mr. Kains.

5 MR. KAINS: Thank you, Mr. Barry.

6 All right, closing statements from anybody in
7 favor of the application?

8 Closing statements from anyone opposed to the
9 application?

10 Mr. Uphoff, well, you can come up and say
11 whatever you want to say. You've already said a good
12 piece, but we'll let you say --

13 MR. UPHOFF: Well, I'm not finished.

14 MR. KAINS: We'll let you say some more.

15 MR. UPHOFF: Thank you.

16 MR. KAINS: Keep in mind, ladies and gentlemen,
17 that closing statements are summaries of the evidence and
18 are not considered as part of the evidence.

19 Go ahead, Mr. Uphoff.

20 MR. UPHOFF: Okay, let me get my thoughts
21 together here.

22 MR. KAINS: Sure.

23 MR. UPHOFF: Yeah. Salt Lake City. We are now
24 putting these solar panels right in the middle of the

1 Mattoon watershed. With all the drinking problems of --
2 drinking water problems that Mattoon has had in this
3 summer, we do not need any more problems. All we would
4 need is one tornado, which a tornado went south of my
5 house earlier in the spring. And now they're moving the
6 solar panels in a quarter-mile north of my house. So,
7 tornados do happen in our area. A -- two counties north
8 of us, we had a solar panel damaged by a storm and hail.
9 And it happens.

10 So, in the last ten years in Illinois --
11 approximately lost 35,000 acres of the farm ground to
12 solar. These are studies that I've taken off the
13 internet, but. And from '01 to '21, we have lost
14 155,000 acres to Illinois cropland for human development.
15 Illinois now has, at this time, 27 million acres. That
16 sounds like a lot. But if this trend was to go -- keep
17 going this way, Illinois would be used up in 170 years.
18 That may sound like a long time to you, but it will be
19 here before you know it. Not for us, but for our
20 great-grandchildren.

21 This would be a great disservice in my opinion
22 for our county to vote "yes." You would be voting "yes"
23 to potential pollution of the Mattoon water sources, "yes"
24 to taking out productions of some of the best farm ground

1 in the world, and "yes" to taking the land away from our
2 future farmers of America and would -- that want to
3 continue to feed each and every one of us the least
4 expensive food in the world.

5 That's all I got to say.

6 MR. KAINS: Very good, Mr. Uphoff. Thank you for
7 your statement.

8 Anybody else wishing to make a closing statement?
9 Mr. Sherman?

10 (Pause.)

11 MR. SHERMAN: Just -- just very, very briefly
12 here. Mr. Barry just spoke about that there was no
13 evidence to oppose. The burden of proof is not on us that
14 are in opposition. The burden of proof is on the
15 application, that's what's -- that's what it's about. So,
16 I'm -- I'm a little bit perplexed about, you know, it's
17 not up to us to prove that it shouldn't exist. That --
18 that's not -- that's not why we're here.

19 He did bring up factors, the hearing factors.
20 And it goes back to something that we've hit on several
21 times. The very first one in Item (a) talks about
22 endangering the public health, safety, morals, comfort,
23 and general welfare. We keep coming back to that.
24 General welfare. In whose eyes?

1 Then, the second one, Item (b), "will not be
2 injurious to the uses and enjoyment of other property in
3 the immediate vicinity." I bet if I asked Mr. Uphoff --
4 Uphoff if he was gonna enjoy this, I bet him what his
5 answer's gonna be.

6 The third one, "The establishment will not impede
7 the normal and orderly development and improvement of the
8 surrounding properties." It will change the landscape of
9 that area of our County at least for the next 20, 30,
10 50 years. So, I'm glad he brought up the -- the factors.

11 And it ultimately comes down to you folks, over
12 there, the County Board of, you know, do you vote in favor
13 of it or do you vote to deny the application? Now, my --
14 my hope is that you deny the application.

15 MR. KAINS: Thank you very much, Mr. Sherman.

16 Anybody else with a final closing statement?

17 MS. FICHTER-WANDLING: Is it positive or
18 negative? For it in favor or against?

19 MR. KAINS: Well, we -- we did the ones in favor
20 of, but if you want to say something, I'll let you. And
21 there's a lady behind you who wants to say something, but
22 you can go first, ma'am.

23 MS. FICHTER-WANDLING: Okay.

24 MR. KAINS: But this has to just summarize the

1 evidence as you see it.

2 So, could you please state your name for the
3 record.

4 MS. FICHTER-WANDLING: Yeah, my name is Maria
5 Fichter-Wandling, and I'm a resident -- Maria
6 Fichter-Wandling.

7 MR. KAINS: Okay, how do you spell your last
8 name?

9 MS. FICHTER-WANDLING: Okay. F, as in "Frank,"
10 i-c-h-t-e-r, dash, W-a-n-d-l-i-n-g.

11 MR. KAINS: Okay, go right ahead.

12 MS. FICHTER-WANDLING: I didn't want to speak to
13 that because I don't like standing up in front of people
14 and talking. But I just want to say that the board is
15 here to consider whether the company Glacier Moraine has
16 met the application or the ordinance requirements, and I
17 think that's what you need to be focused on.

18 I've heard a lot of talk about environmental, you
19 know, damages that might occur because of this. But I
20 keep thinking, you know, I think there was a lot -- when
21 Lake Mattoon was mentioned, I don't think that had
22 anything to do with solar panels. I think it had to do
23 with field runoff and global warming.

24 And if you -- we want to think about

1 environmental damage, we need to think about global
2 warming. You know, when I drive from Champaign to -- to
3 back to Charleston in the evening, I don't have any bugs
4 anymore. And as farmers we know -- I mean, any farmer
5 here should know that you need insects. You need
6 pollinators for your, you know, for your crops. Without
7 insects, birds are not gonna thrive, so much for those
8 birds that we're talking about here.

9 Anyway, this is a very emotional thing, but --
10 and the last comment I want to make -- this is a free
11 market system, right, that we are living in. If the
12 company has met the ordinance requirements, they should --
13 and if the farmers are willing to lease their lands or
14 do -- go to -- go into agreements with this company, they
15 should be allowed to do so.

16 That's all I want to say right now.

17 MR. KAINS: Very good, thank you, ma'am.

18 Okay, and the lady two rows behind her. Here she
19 comes. Could you please state your name.

20 MS. BREDESEN: My name is Dagmi, D-a-g-m-i,
21 Bredesen, B-r-e-d-e-s-e-n. And this is just such a small
22 thing.

23 But I'm very excited about the possibility of
24 diversifying our energy. Energy bills keep going up. And

1 I think we need more opportunities for growth in this
2 area, and I'm really excited about this project. Thank
3 you.

4 MR. KAINS: Thank you for your statement.

5 Mr. Yurs, I'm so glad you raised your hand
6 because I want to hear what you think.

7 MR. YURS: Oh, do you?

8 (Audience members laughing.)

9 MR. KAINS: Do you have his name? Todd Yurs,
10 Y-u-r-s.

11 COURT REPORTER: Yes.

12 MR. YURS: Well, two years ago, a farmer came up
13 to me and said he was gonna --

14 MS. BREDESEN: I might have turned that off.

15 MR. YURS: I don't know what to do with this
16 thing.

17 (Audience members laughing.)

18 MR. YURS: So, the farmer came and said he was
19 gonna put his ground in solar. And it's every acre around
20 my house, and I kind of have a stressful moment, like what
21 am I gonna do? And so, I was like for quite a while, I'm
22 kind of freaked out, like what we doing? And you keep
23 going. All the sudden, I started seeing the biologist
24 girls come by and they're looking at things. So, I'm -- I

1 mean, I'm a curious person, so I'm asking questions. They
2 tell me what they're doing. They're getting the permit
3 ready for the wildlife -- doing the wildlife study, the
4 drainage ditches for the corps, etc., etc.

5 Then, the archeologists come by. And I asked
6 them a questions, like, "Hey, what you guys doing? What
7 are you looking for?" And they tell me, and ask if I know
8 anything. And it goes on and all the sudden -- all the
9 sudden I'm seeing -- seeing like a skid steer down the
10 road and a truck pulling up, and they're doing these pile
11 driver tests.

12 Now, living in the country, I don't know how many
13 people here live in the country, everybody thinks country
14 roads are just -- you can fly a hundred mile an hour down
15 them. These guys all were like -- drove like civilized
16 human beings. And they were very courteous. When you
17 asked them a question, they gave you an answer. They told
18 you what they were doing. They explained it to you.

19 And -- and so I'm like, "Okay, this is moving
20 forward. I probably ought to check this out a little bit
21 and see what's gonna happen." And so I reached out,
22 initially I got through, I got Ryan. And then he's like,
23 "Oh, I got to pass the buck on this one. It's a little
24 higher up than my pay grade." And so I ended up with

1 Emre. And when I kind of went to him with my concerns,
2 he's like, "I want a resolution to this. We have to find
3 a resolution." And -- and so I have found through this
4 whole process -- nobody's bought anything yet, FYI --
5 and -- but I know it will be resolved. And it -- it's not
6 for me to say what Ed does with his farm ground. It's not
7 to say what he does with farm ground or they do with farm
8 ground or who it is. It's their farm ground.

9 And when the biggest project of this is in
10 Cumberland County and dangles into Mattoon, this is
11 120 acres. I mean, it's kind of -- but I think part of
12 it, too, is just so people can get on with their lives and
13 stop delaying all of this and just let everything move
14 forward.

15 So, as far as the eagles and all that go, I mean,
16 you're talking about low areas. They're gonna fly to a
17 different field. And there's no eagle nests around me,
18 FYI. It's up the road.

19 MR. KAINS: Thank you, Mr. Yurs.

20 Anybody else want to say anything?

21 All right, closing statements have concluded. It
22 is time now for the Planning and Development Committee to
23 conduct its deliberations and vote. They will be working
24 on -- with Mr. Keyt as their attorney. He will be going

1 through what are called findings of fact, conditions that
2 are to attach if this project is approved. And then we'll
3 do a recommendation -- or a vote on a recommendation.

4 Mr. Keyt, Ms. Rives, how long do you need to
5 finish whatever it is you're working on over there? Do we
6 need to take a break for...

7 MR. KEYT: Probably...

8 MS. RIVES: Ten -- ten minutes, probably.

9 MR. KAINS: Ten-minute break? Okay, we're gonna
10 be in recess. We'll come back with decisions from the
11 committee.

12 The Planning and Development Committee of Coles
13 County is in recess until 8:25. Thank you.

14 (Recess.)

15 MR. KAINS: All right, folks, if you could please
16 find your seats, we're gonna finish this tonight.

17 (Pause.)

18 MR. KAINS: All right, so we're back on the
19 record now, and it is -- it is time for Mr. Keyt to work
20 with his client, members of the Planning and Development
21 Committee of the Coles County Board. They're going to be
22 considering, discussing, and voting on findings of fact.
23 These are factual assertions that came from the evidence
24 in the case and they must be considered and voted on.

1 And then, there will be conditions that if the
2 project is approved, these certain conditions will attach,
3 basically to have the developer conform to all conditions
4 imposed by the County. And if not, then they'd deal with
5 Mr. Keyt, perhaps in a courtroom, other than -- well,
6 probably this one, actually. And then the final thing to
7 take up will be their recommendation, their vote on the
8 recommendations.

9 So, with that, I'll turn the floor over to
10 Mr. Andrew Keyt.

11 MR. KEYT: Okay, thanks, Mr. Kains.

12 I am going to -- just for the record, the
13 committee has a copy of two documents. One is titled the
14 "Findings of Fact," the other is titled "Conditions of
15 Approval." We're gonna take them separately. There are
16 three votes, just so the County Board -- or I'm sorry --
17 for the committee's beneficiation.

18 And just a reminder, is there's really three
19 votes -- one is to set the findings of fact, one is to
20 have recommended conditions to the County Board, and the
21 other is on a recommendation to the County Board on the
22 project on whether to approve or deny the project or
23 approve subject to conditions.

24 Before I dive into these two documents, are there

1 any questions that the committee wants me to address
2 before I dive into these documents with you?

3 MR. WATTS: I don't think so.

4 MR. KEYT: Okay. Well, I'm gonna dive into --
5 I'm gonna start with the findings of fact, that's the
6 document -- it's 12 pages. It is titled at the top,
7 "Coles County, Illinois, Planning and Development
8 Committee Finding of Fact and Recommendation." And I'm
9 gonna dive into that. I'm gonna just remind the
10 committee, these are up to you how the conditions -- or
11 I'm sorry -- the findings of fact will read. These are
12 kind of within your purview. And the recommendation that
13 you're gonna provide to the County Board is entirely
14 within your purview.

15 The findings of fact are set up as -- from a -- a
16 document prospective, the findings of fact are set up --
17 there is a, essentially, summary of what we've -- what has
18 been admitted into the record. So, what documents, it's
19 the hearing process that we've heard, who testified, for
20 example, marking of all of the exhibits.

21 And then, on Page 3, we actually get into the
22 actual meat of the document, which is findings of fact.
23 Findings of fact is set up -- the bold portions are your
24 ordinance requirements. So, if you see it in bold, that

1 is one of the ordinance requirements that's listed in your
2 ordinance.

3 Just like with the wind farm, we will take these
4 in order. They are set up as a draft, so it's entirely up
5 to you how they read. The unbolded print is where that
6 information was provided, either in the application or was
7 it provided during hearing, etc. So, whether they've met
8 the requirements or not.

9 I am gonna do this in sort of a summary fashion,
10 unless you want me to narrow in on details. You tell me
11 otherwise. But otherwise, I'm gonna do it in a summary
12 fashion. Everybody good with that --

13 MR. WATTS: Yes.

14 MR. KEYT: -- process? Okay.

15 Pages 3 -- and I'm gonna take you through 3
16 through 6 for this time. And that covers the special use
17 permit application, all the way to the provision that
18 starts on Page 6 with "Design and Installation."

19 The Applicant -- and I'm just gonna talk about
20 these generally. If there's anything you want to change,
21 I'll ask you for that, change it here in a second, on
22 those three pages. But I'm just gonna take this
23 generally.

24 The -- one of the primary requirements of the

1 special use application is that they provide a summary of
2 the project. There's a number of requirements in there
3 about what they have to provide. They provided that there
4 in Subparagraph 1 at the end of Page 3.

5 Then, we get into some details regarding who the
6 name of the Applicant is, phone numbers, owner/operator,
7 etc., that's listed there on Subparagraph 2 on Page 4.

8 And then the site plan has been provided. There
9 was a pretty extensive set of drawings that's been
10 provided as Exhibit B, which is the site plan documents.
11 And that's Subparagraph 3.

12 Subparagraph 4 deals with decommissioning plan
13 for the commercial solar energy facility. They didn't
14 provide a decommissioning plan. They called it a
15 "Decommissioning and Site Reclamation Plan" for the
16 project as a whole. It wasn't specific to Coles County.
17 That's generally okay, because when we get to the point of
18 the County Board dealing with a decommissioning agreement
19 plan, financial assurance, that all comes to the County
20 Board for approval and is subject to review by the
21 third-party engineer. So, when we do that, we would be
22 talking just about those three parcels that are within the
23 County's jurisdiction. So, it's okay if it didn't
24 specifically state that it was Coles County versus

1 Cumberland. I think they included it as a project as --
2 as a whole in the decommissioning.

3 Number -- Number 5 deals with studies, reports,
4 certifications, and approvals demonstrating compliance
5 with the provisions of the ordinance. They are listed.
6 Then is the exhibits and where to find them in relation to
7 the application of what was -- or what is required in your
8 ordinance.

9 Number 6 is the AIMA. That has been provided.

10 Number 7 is topographical maps. Those have been
11 provided.

12 Any other information for siting buildings or
13 other structures, there's none applicable at this point.

14 There's no waivers for setback, that's
15 Subparagraph 9.

16 The EcoCAT, which is Subparagraph 10, is
17 provided.

18 And then the U.S. fish and wildlife solar -- U.S.
19 Fish and Wildlife Service's information for planning and
20 consulting was provided.

21 And then information that they would avoid
22 protected lands. And that's part of the SHPO response.

23 Any changes, adjustments, that anyone wants to
24 make on Pages 1 through 6?

1 MR. WATTS: In terms of the specific
2 decommissioning plan for what we're looking at tonight,
3 that's going to be coming in as part of the building
4 permit process?

5 MR. KEYT: Yeah, there -- I mean, there was a
6 plan submitted. So, there was a plan submitted with cost
7 estimates. But keep in mind, before the -- keep in mind,
8 that you have a two-stage process. You have a special use
9 permit application, that's we're talking about tonight.
10 If that's decided in the Applicant's favor, they would
11 then move to second phase, which is to get a building
12 permit.

13 Before -- one of the conditions of approval,
14 which is also written into your ordinance, is before they
15 could get a building permit, they have to come to the
16 County, negotiate a decommissioning agreement, negotiate a
17 decommissioning plan, and negotiate the cost estimates
18 associated with that. All of that goes through the
19 engineer's review, goes through my review, and then it
20 goes to the County Board, ultimately, for approval.

21 So, before they can get a building permit, that
22 decommissioning plan, cost estimate, and ultimately the
23 agreement would go to the County Board for approval.

24 MR. WATTS: Thank you.

1 MR. KEYT: Okay, any changes or adjustments
2 anyone wants -- wants to make as to Pages 1 through -- I'm
3 just gonna say 1 through 6? Hearing none, I'm gonna move
4 on, then.

5 And I'm gonna cover Pages 7 through Page 10, just
6 before we get to "Assessment of Hearing Factors." Just
7 before we get to that, I'm gonna cover those -- those
8 pages there.

9 Vegetative screening, they will be required to
10 have a vegetative screening, which is part of your
11 ordinance. They have to screen for non --
12 nonparticipating residences. There was a landscaping plan
13 provided in Appendix E and the Vegetative Management Plan
14 in Appendix H. Keep in mind, if you were to approve the
15 project, one of the conditions would be they would have to
16 abide by any vegetative management plan and vegetative
17 screening plan. That would have to go to County Board for
18 approval. So, that's part of the conditions if you were
19 to approve it.

20 Number 2, lighting for the project will be
21 downcast.

22 Number 3 deals with intra-project power and
23 communications lines, which requires them to be buried.

24 Fencing is covering in Subparagraph E.

1 Warnings is -- is covered.

2 Setbacks requirements, they meet the setback
3 requirements without the use of a waiver.

4 Public roads, very similar to the wind ordinance,
5 they'd be required to have a road use agreement prior to
6 obtaining a building permit.

7 Number -- or I'm sorry -- Letter J deals with
8 site assessments. So, they have to provide a site
9 assessment related to the facility. Keep in mind, this is
10 part of the building permit process. This is not part of
11 the special use process, but they did address some of
12 these things within their application.

13 Noise levels, they have to provide a qualified
14 professional demonstration that they will be able to
15 comply with the noise requirements of the Illinois
16 Pollution Control Board. They provided that in
17 Appendix F.

18 Subparagraph L is the Agriculture Impact
19 Mitigation Agreement. They provided that.

20 Number N deals with engineer certificates. So,
21 to the extent engineer certificates were required or
22 design drawings were required, technical submissions are
23 required to be stamped or signed. Those are provided.

24 Any changes up to paragraph -- or I'm sorry --

1 Page 10 before I get to "Assessment of Hearing Factors"?

2 (Pause.)

3 MR. KEYT: We'll deem that silence as acceptance.

4 So, we will then move on to the hearing factors.

5 The only thing I'm going to remind you of on hearing

6 factors, which really is -- become relevant a little bit

7 later, the hearing factors is a balancing test. That's

8 the way the Supreme Court has it. That's the way it's

9 written in your ordinance. It is not an all or nothing.

10 We don't have to meet every factor of the hearing factors.

11 It is a balanced test, always has been a balancing test.

12 Those are listed there (a) through (f). They

13 have largely demonstrated compliance with those hearing

14 factors, however there was some testimony provided

15 regarding property values could be negative impacted. And

16 I believe we heard some testimony on that topic.

17 But in terms of hearing factors (a) through (f)

18 and -- or I'm sorry -- (a) through (g) -- excuse me -- any

19 changes anyone wants to make through -- to those -- the

20 evidence or testimony or findings -- excuse me -- draft

21 findings that are listed there (a) through (g)?

22 MR. CLAYTON: No.

23 MR. KEYT: Okay, hearing none.

24 Is there -- at this time, it would be appropriate

1 if anyone would like to make a motion to approve the draft
2 findings of fact as written.

3 MR. CLAYTON: I'll make that motion.

4 MR. KEYT: Mr. Clayton. Is there a second?

5 MR. COX: I'll second.

6 MR. KEYT: Mr. Cox. All those in favor signify
7 by saying "aye."

8 MR. CLAYTON: Aye.

9 MR. COX: Aye.

10 MR. WATTS: Aye.

11 MR. KEYT: Opposed same side? Okay, the motion
12 carries three to zero.

13 All right, any questions before I get into the
14 conditions? You've had those a little bit longer than
15 you've had the findings. Do you want me to go through
16 them in detail or in more of a summary fashion?

17 MR. CLAYTON: Summary.

18 MR. KEYT: Same thing, we are dealing with a
19 draft set of conditions. You probably have a
20 recollection, since it wasn't all that long ago, of the
21 draft conditions we went through in relation to the wind
22 farm. A lot of these conditions look and read the same
23 because a lot of the same issues arise.

24 Example -- decommissioning, for example, they

1 stipulated that they would provide a hundred percent
2 without salvage value from the time of the building
3 permit. They're not required to do that, so we have to
4 get their -- their stipulation to do that. But they
5 agreed to that, and that's drafted into the draft
6 conditions that way.

7 Another example, road use agreements. They have
8 to obtain road use agreements from us before they get a
9 building permit. That's in your ordinance, but we
10 reiterated some of that information here.

11 I'm gonna cover a couple of just very high-level
12 things that are specific to solar farms or, in this
13 particular instance, a solar project.

14 So, Paragraph Number 8 on Page 2 deals with the
15 evaluation of noxious weeds, weed management plan, and
16 landscape management plan. So, before they get a building
17 permit, they're gonna have to come to the County Board.

18 If the project is approved, okay, that doesn't --
19 voting on these conditions doesn't mean you're gonna
20 approve a project, it is just setting -- for recommending
21 a set of conditions. Before they get a building permit,
22 they would have to perform an assessment of the property
23 and then come up with a weed management plan and landscape
24 management plan to propose to the County for approval.

1 That may include a pollinator-friendly site. So, they can
2 come and say, "We're gonna do this in a pollinator-friendly
3 site." And then if there's, you know, a backstop if that
4 doesn't take for some reason, that they would have to
5 provide that to the County for approval.

6 Vegetative screening is Subparagraph 9 on Page 3,
7 deals with they would have to -- deals with vegetative
8 screening. They would have -- there's some minimum
9 requirements written in here. An example, they would have
10 to have shrubs or bushes, whatever they're gonna plant,
11 trees, they have to be at least four feet in height at the
12 time of planting. They would have to come -- include
13 their vegetative screening in -- as part of the landscape
14 management plan and be approved by the County Board prior
15 to receipt of the building permit.

16 Also written into this is they have to maintain
17 that vegetative screening for the life of the project.
18 So, if some vegetative screening dies off during the life
19 of the protect, your Regional Planning Commission, your
20 Executive Director, would then say, "Hey, you got some
21 dead trees here. Go and fix it," and they have to go
22 replant trees.

23 I'm gonna jump to Paragraph 12. It deals with
24 assignment. The main part of Paragraph 12 to keep in mind

1 is if the project -- if for some reason the project gets
2 sold, okay, so project gets sold to some other entity, all
3 of the requirements that deal with that -- agreements that
4 we make, all the conditions that are in place, all the
5 ordinance requirements, all the road use, decommissioning,
6 vegetative management, all of those items go with the
7 project. So, the new buyer has to abide by all of those
8 requirements, regardless of whether they feel like they
9 want to or not, okay? And one of the requirements would
10 be we make them sign some acknowledgement that they exist
11 and they have to abide by it.

12 Drain tile surveying deals with Paragraph 13. If
13 there's any changes in the drainage structures or features
14 of the project parcels, they are to provide those
15 applicable drainage districts with a finalized drainage
16 plan, which is required in the siting statute. Also, keep
17 in mind, they also have to always apply or abide by
18 Illinois law in relation to drainage. They can't impact
19 drainage off the property to somebody else, like increase
20 discharge.

21 Wells and well monitoring deals with any inactive
22 or abandoned wells on the site would have to be sealed.
23 If there's any unsealed wells on adjacent property, if
24 there are any that exist, the condition on Number 14 is

1 that they would perform annual water testing if an
2 adjacent landowner wants it. If they don't want it, they
3 don't want them on the land or don't want them to test it,
4 they don't have to do that. But that's in there if
5 somebody says, "Hey, I'm concerned about my well water. I
6 want to test it," if they're on an adjacent parcel, they
7 have to go out and do it.

8 Fire protection, I think we are all cognizant of
9 that. If there is an emergency response, they have to
10 reimburse those emergency response agencies. They also
11 have to work with them to train them and provide them any
12 equipment needs that they may need.

13 Everything else is relatively similar to what
14 you've probably seen before. I'm gonna point out
15 Subparagraph 24 on Page 6, which deals with battery
16 storage prohibition. There is no part of the application
17 that asked for battery storage, that's prohibited at the
18 site.

19 Grading -- if there is a grading, they'd have to
20 provide a dust mitigation plan. General -- the very last
21 condition is the general provision, which deals with
22 the -- right now there's not necessarily a well-defined
23 fine provision within your ordinance. This would
24 impose -- unless it's listed somewhere else in your

1 ordinance of specifics -- fines provisions. This would
2 have a fine provision of not more than a thousand dollars
3 per violation for each day if a violation exists.

4 I'm gonna go back to one specific item,
5 Subparagraph 3 on Page 1 deals with the term.

6 MR. CLAYTON: Right.

7 MR. KEYT: You may recall that their request was
8 for siting approval for 50 years. That's a very long time
9 to approve a special use. Most special uses don't run for
10 that long in this world. Most of them are somewhere
11 between 30 and 40 years. My understanding from the
12 developer is that in order for them to just get financing,
13 they would have to have a 35-year term. So, my
14 recommendation would be on the term period, Number 3, is
15 to instead of 30 years have 35 years for that time period.

16 Keep in mind, this only comes into play if you
17 approve the project, so.

18 MR. CLAYTON: I have a question on that.

19 MR. KEYT: Yes, sir?

20 MR. CLAYTON: Let's say they -- they run it out
21 50 years. How do they come back to us and extend it?

22 MR. KEYT: Yeah, they would have to --

23 MR. CLAYTON: Would that be -- would that be in
24 this document?

1 MR. KEYT: Yes.

2 MR. CLAYTON: Should it be in this document?

3 MR. KEYT: Yeah, in that paragraph, it requires
4 that they come back prior to expiration of 35-year period,
5 not 50, but 35. Prior to that expiration, the company may
6 apply to the County Board to extend the term of the
7 special use. If they don't do that, their special use
8 expires by operation of the condition, and then the County
9 could say, "Okay, you got to decommission your project."
10 So -- and if they don't, then the County could effectuate
11 that decommissioning.

12 So, it -- now, couple things may change between
13 now and year 35. Law might change. How the State sites
14 these things may change. There's a lot of unknowns in
15 there, so we just leave it as 35 years, you expire. If
16 you want to extend it, you have to come back to us and ask
17 for another special use. If the law still is the same as
18 it is right now, they have to come back and do the special
19 hearing process.

20 MR. CLAYTON: So, if they do come back in
21 35 years to extend it, will they be coming before the
22 Planning and Development Committee, get a recommendation
23 to go to the full board, the full board votes, and that's
24 it?

1 MR. KEYT: If everything remains status quo, that
2 would be correct.

3 MR. CLAYTON: Okay.

4 MR. KEYT: They'd have to come back and redo this
5 whole thing, just like they did tonight.

6 MR. CLAYTON: Okay.

7 MR. KEYT: Or -- and last night. Now -- no.
8 Just the County now being, a lot of things can change
9 between now and 35 years, but that's --

10 MR. COX: Like you won't be on the board.

11 (Audience members laughing.)

12 MR. KEYT: Well, science might, you know, might
13 change that, too.

14 Anything -- I've run through, sort of, the
15 overview of those conditions and the ones that are very
16 particular to this project. Is there anything anybody
17 wants to add, change, amend in relation to the conditions?

18 MR. CLAYTON: Well, I'm gonna ask the same
19 question on assignment that I asked in the wind. Is -- is
20 it stipulated in here that the acquirer has to have some
21 type of expertise in running this type of -- of operation?
22 I didn't see it, real quick --

23 MR. KEYT: Yeah, it's --

24 MR. CLAYTON: -- while I was going through there.

1 MR. KEYT: So, I'm gonna point out to...

2 MR. CLAYTON: Because you found it before, I
3 know.

4 MR. KEYT: Yeah, I know. I'm getting there.

5 If you go to the assignment clause, which is
6 Page 12 -- I'm sorry -- Page 3, Subparagraph is 12, if
7 they're gonna assign it to somebody -- now keep -- keep in
8 mind, there are assignments of certain interests. For
9 example, they go to get financing, that's an assigned
10 certain interest in the project. The County doesn't want
11 to govern that. We wouldn't govern that.

12 But if they're going to sell the project to some
13 other entity, the provision that kicks in is really
14 Subparagraph A. So, Subparagraph A deals with the
15 acquirer would have to demonstrate to the County Board
16 adequate financial resources, experience in, and
17 capability of operating a solar energy project.

18 MR. CLAYTON: Okay.

19 MR. KEYT: And the acquirer has to then comply
20 with all the conditions.

21 MR. CLAYTON: It was right where it was before.

22 MR. KEYT: Yep.

23 MR. CLAYTON: Thank you.

24 MR. KEYT: Okay, any other changes, amendments,

1 questions?

2 MR. WATTS: I have a question. I don't --
3 complaint reporting and resolution, where does that in
4 the -- in these documents?

5 MR. KEYT: There -- there's already a provision
6 in your ordinance that deals with cure period -- or I'm
7 sorry -- complaint resolution. And I'll just reference
8 it. Now, we could always just repeat it within the
9 conditions, but I -- in my opinion, there's not really a
10 need to do that. And I -- I generally try and not to
11 repeat things that are in the conditions.

12 MR. WATTS: Right.

13 MR. KEYT: Or that are in the ordinance within
14 the conditions. But if you look at "Complaints and
15 Compliant Procedure" in your Page 14 of your ordinance --
16 Page 14 of the ordinance already has a pretty robust
17 complaint and complaint procedure process.

18 MR. WATTS: Okay.

19 MR. KEYT: So, it wouldn't say it's -- in this
20 particular instance, I wouldn't come up or try and come up
21 with something new, largely because (a), it's already
22 covered in the ordinance and (b), we're talking about
23 three parcels. So, you know...

24 MR. WATTS: Okay.

1 MR. KEYT: Any other amendments, changes,
2 questions, additions?

3 MR. CLAYTON: Not from me.

4 (Pause.)

5 MR. KEYT: Yeah, just one reminder on the
6 conditions, they're -- they're only a recommendation to
7 the County Board. The County Board has the final say of
8 conditions. They also have the final say of whether to
9 approve or not approve the project. They could take the
10 conditions and crumple them up and throw them out. But,
11 generally, it's a way to get them started on what would be
12 a set of conditions to utilize.

13 If there's no changes or amendments, someone
14 could make a motion to approve -- what I would suggest is,
15 a motion to approve as drafted with the term being
16 35 years as opposed to 30 years.

17 MR. WATTS: Anyone want to make a motion?

18 MR. COX: Go ahead.

19 MR. CLAYTON: I'll make a motion that we accept
20 the conditions of approval with the change of 30 -- from
21 35 -- to 35 years from 30.

22 MR. KEYT: Okay, is there a second?

23 MR. COX: I'll second.

24 MR. KEYT: Mr. Cox. All those in favor signify

1 by saying, "aye."

2 MR. CLAYTON: Aye.

3 MR. COX: Aye.

4 MR. WATTS: Aye.

5 MR. KEYT: Opposed same side?

6 Okay, motion carries three to zero.

7 Okay, I'm going to go back to the findings of
8 fact document. At the very end of that document, Page
9 Number 12, it's the very back of the document, actually.
10 We now have to decide what the recommendations to the
11 County Board is gonna be. It's up to you what the
12 recommendation is. I don't tell you tell you how to vote.
13 You basically have three decisions or three options on
14 your recommendation, which is a recommendation to approve
15 it, a recommendation to deny it, or a recommendation to
16 approve it subject to recommended conditions attached
17 thereto, which is the ones we just read.

18 I don't tell you how to vote. The only thing I
19 would recommend is on a project of this size, if you're
20 going to recommend approval, you make your recommendation
21 of approval subject to conditions.

22 MR. WATTS: Do I hear a motion?

23 MR. COX: I'll make a motion to approve subject
24 to the recommended conditions that are attached.

1 MR. WATTS: Okay, we've got a motion. Do I have
2 a second?

3 MR. CLAYTON: I second.

4 MR. KEYT: Mr. Clayton.

5 MR. WATTS: We have a second. All those in favor
6 say "aye."

7 MR. CLAYTON: Aye.

8 MR. COX: Aye.

9 MR. WATTS: Opposed?

10 MR. KEYT: Okay.

11 MR. WATTS: Okay, the motion carries.

12 MR. KEYT: Let the record reflect the motion
13 carries three to zero to recommend approval subject to
14 conditions.

15 MR. KAINS: Mr. Chairman, when is the next County
16 Board meeting?

17 MR. COX: Second Tuesday in September.

18 MR. KAINS: Second Tuesday in September.

19 MR. SHERMAN: It's the 9th.

20 MR. KAINS: I assume this will be on the agenda
21 for that evening.

22 MR. COX: It should be.

23 MR. KAINS: So, next action on this will be
24 September 9. What time do y'all start?

1 MR. COX: 6:00.

2 MR. CLAYTON: 6:00.

3 MR. WATTS: 6:00.

4 MR. KAINS: 6:00 p.m. Where do you meet?

5 MR. COX: Normally courtroom 5.

6 MR. KAINS: Courtroom 5.

7 MR. SHOOK: Upstairs.

8 MR. KAINS: Upstairs. Okay, so that will be --
9 the recommendation to the full County Board will be taken
10 up on September 9th at 6:00 p.m., Courtroom 5 of this
11 building.

12 On the agenda next, the -- the committee chose
13 to -- to move public comment down to this point of the
14 agenda. Public comment for this committee on anything
15 other than the Glacier Moraine Solar application? Seeing
16 none.

17 Mr. Chairman, I just want to say thank you for
18 your work and, members of the County Board, thank you for
19 your work on this.

20 MR. WATTS: We thank you.

21 MR. KAINS: Also -- also, thank you for retaining
22 my services to conduct this hearing. I just want to say
23 to folks in the audience, you saw a couple of really good
24 attorneys here. You saw Mr. Barry, Mr. Keyt, and

1 Ms. Rives. Ms. Rives doesn't say much, but she tells
2 Mr. Keyt oftentimes what to say.

3 (Audience members laughing.)

4 MR. KAINS: But you saw some very good attorney
5 work in this hearing.

6 Also, want to say, folks who came up and
7 testified and gave public comment, thank you. Because
8 this is a public hearing and it's time -- it is the time
9 to have your feelings known, whether you're for it,
10 whether you're against it.

11 And representatives from Earthrise, starting with
12 Mr. Ozmen: Thank you for your professionalism and all of
13 your team. You know, this is not an easy thing for a
14 company to do. You heard from Mr. Yurs that people were
15 out at his property nosing around, doing things, and he
16 asked them what was going on, and it seemed like he was
17 satisfied. So, you know, if we have a good company, maybe
18 something good will come of this, okay?

19 But I -- I also want to say, I have done hearings
20 in 10 or 12 counties in downstate Illinois, and I always
21 enjoy coming over and working with this committee and this
22 County Board and their attorneys, Mr. Keyt and Ms. Rives.
23 I've also gotten to know some of you fairly well, even
24 though I can't get Mr. Shaffer's name right --

1 Mr. Sherman's name right.

2 (Audience members laughing.)

3 MR. KAINS: That was on purpose.

4 MR. SHERMAN: Yeah, okay.

5 MR. KAINS: But I -- I respect Mr. Sherman's work
6 and Mr. Uphoff, also, for coming in here and -- and
7 telling folks what they think.

8 So, with that, Mr. Chairman, I think there needs
9 to be one more motion.

10 MR. WATTS: Yeah, I will entertain a motion to
11 adjourn.

12 MR. CLAYTON: I'll make that motion.

13 MR. WATTS: Motion by Clayton. Do I hear a
14 second?

15 MR. COX: I'll second.

16 MR. WATTS: Second by Cox. All those in favor?

17 MR. COX: Aye.

18 MR. CLAYTON: Aye.

19 MR. WATTS: Any there any opposed? We are
20 adjourned.

21 MR. KAINS: We're adjourned.

22 MR. WATTS: Thank you, all.

23 MR. KAINS: Thank you, Mr. Chairman.

24 (End of hearing.)

CERTIFICATE OF REPORTER

I, LYDIA G. MADLEM, an Official Court Reporter
for the Fifth Judicial Circuit of Illinois, do hereby
certify that the foregoing Report of Proceedings was
reported in machine shorthand by me and is a true,
correct, and complete transcript of my machine shorthand
notes so taken at the time and place hereinabove set forth
to the best of my ability.

A handwritten signature in cursive script that reads "Lydia Madlem". The signature is written in dark ink and is positioned above a horizontal line.

LYDIA MADLEM
Official Court Reporter
IL License No. 084.004988

Dated this 2nd day of September, 2025.

\$	36:1, 4, 8; 109:21; 133:9	49:21 360 [1] - 41:1 39 [1] - 2:7	8	accounted [1] - 38:3 accurate [2] - 70:15; 114:13 achieve [1] - 20:4 acknowledgement [1] - 152:10 acquirer [3] - 156:20; 157:15, 19 acre [4] - 80:7, 10, 13; 136:19 acreage [2] - 79:12; 80:5 acres [13] - 10:17; 44:24; 78:11, 13; 79:11, 23; 80:1; 105:9; 122:17; 131:11, 14-15; 138:11 Act [2] - 100:22; 120:21 act [1] - 93:1 action [1] - 161:23 active [1] - 33:21 actual [5] - 43:22; 45:17; 61:9; 127:14; 141:22 add [2] - 12:14; 156:17 added [1] - 10:9 adding [1] - 17:8 addition [1] - 13:5 additional [5] - 5:6; 27:8; 43:19; 126:12; 128:20 additions [1] - 159:2 address [8] - 19:14; 24:24; 27:9; 36:12; 110:17, 19; 141:1; 147:11 addressed [3] - 34:14; 38:11; 109:23 addresses [3] - 36:24; 112:3; 113:22 adequate [6] - 15:2; 18:9; 21:19; 46:18; 128:20; 157:16 adjacent [9] - 26:12; 29:24; 45:4, 14; 77:7; 106:3; 152:23; 153:2, 6 adjourn [1] - 164:11 adjourned [2] - 164:20 adjustments [3] - 114:14; 144:23; 146:1 admin [1] - 127:14 admission [3] - 81:18; 82:7, 18 admitted [5] - 81:9,
\$218,000 [1] - 64:12	20-some [1] - 69:20 2000 [1] - 100:18 2023 [8] - 39:13; 74:19, 21, 23; 75:6; 77:21; 121:1 2024 [5] - 74:14; 75:6; 106:12, 24; 121:1 2025 [3] - 1:4; 106:11; 165:21 2027 [2] - 39:6, 12 2028 [1] - 68:7 2030 [1] - 39:15 2077 [1] - 68:8 21 [1] - 2:4 24 [2] - 2:4; 153:15 25 [4] - 2:5; 26:1, 3; 44:5 26 [2] - 1:4; 56:20 27 [1] - 131:15 270 [1] - 91:13 28 [2] - 2:5 2nd [1] - 165:21	4 4 [3] - 69:3; 143:7, 12 4.23309 [1] - 69:4 4.8 [2] - 106:21 40 [1] - 154:11 40-hour [1] - 67:4 400 [2] - 45:18, 23 42 [1] - 2:7 49 [1] - 2:8 4th [1] - 98:9	8 [2] - 28:21; 150:14 80 [1] - 66:6 800-and-some [2] - 36:19; 107:17 81 [1] - 3:3 82 [2] - 3:4 86 [1] - 26:5 87 [2] - 2:16; 26:5 88 [1] - 2:17 8:25 [1] - 139:13	
'		5 5 [4] - 144:3; 162:5, 10 5.8 [1] - 107:9 50 [12] - 2:8; 24:3, 11; 44:10; 57:18; 105:17, 21; 109:21; 133:10; 154:8, 21; 155:5 50-year [3] - 62:16; 101:20; 120:22 5123 [1] - 99:9 52 [2] - 2:9 52-week [1] - 67:4 53 [2] - 2:10 56 [1] - 2:12 58 [1] - 91:14 5:00 [1] - 1:5	9 9 [3] - 144:15; 151:6; 161:24 92 [1] - 2:17 98 [1] - 2:18 9:00 [1] - 1:5 9th [2] - 161:19; 162:10	
'01 [1] - 131:13 '21 [1] - 131:13		6 6 [7] - 2:3; 142:16, 18; 144:9, 24; 146:3; 153:15 6.6 [1] - 68:18 6.9 [1] - 107:6 60 [3] - 2:12; 57:18 61920 [1] - 1:24 63 [1] - 2:13 66 [1] - 2:14 68 [1] - 2:14 6:00 [5] - 162:1-4, 10	A abandon [1] - 24:4 abandoned [1] - 152:22 abide [4] - 146:16; 152:7, 11, 17 ability [2] - 78:1; 165:10 able [7] - 90:5, 8; 95:19; 96:23; 101:16; 122:10; 147:14 absent [1] - 100:7 absolutely [7] - 13:8; 23:17; 27:6; 30:1; 36:15; 47:19; 124:18 absorb [1] - 9:5 accelerate [1] - 94:17 accept [1] - 159:19 acceptable [1] - 86:4 acceptance [1] - 148:3 access [10] - 11:2; 27:15, 21; 94:17; 96:21; 97:3; 128:21; 129:4, 7 accommodate [1] - 85:3 accommodations [1] - 129:23 according [1] - 103:24 accordingly [1] - 8:3 account [5] - 35:16; 64:10; 75:11; 85:11; 110:7	
0		7 7 [2] - 144:10; 146:5 70 [1] - 64:19 70s [1] - 120:24 71 [1] - 2:15 7:00 [1] - 84:19 7:05 [1] - 84:20		
084.004988 [2] - 1:22; 165:16	3 3 [13] - 3:4; 82:15, 24; 141:21; 142:15; 143:4, 11; 146:22; 151:6; 154:5, 14; 157:6 3,699 [1] - 106:15 3.1 [1] - 66:8 3.32839 [1] - 69:5 30 [25] - 8:4; 24:2, 4; 26:1, 3; 40:5; 44:5; 58:14, 18; 62:14; 63:5; 64:22; 83:23; 103:24; 104:1, 15; 109:21; 121:24; 123:2; 133:9; 154:11, 15; 159:16, 20 30-minute [1] - 113:19 30-year [5] - 39:18, 22-23; 62:15; 105:16 300 [1] - 53:12 31 [1] - 68:4 33 [1] - 2:6 35 [12] - 44:13; 101:20; 109:4; 154:15; 155:5, 13, 15, 21; 156:9; 159:16, 21 35,000 [1] - 131:11 35-year [2] - 154:13; 155:4 350 [3] - 45:8, 16;			
1	1 [8] - 3:3; 81:16, 21; 143:4; 144:24; 146:2; 154:5 10 [5] - 9:8; 144:16; 146:5; 148:1; 163:20 100 [2] - 2:18; 26:4 1000 [1] - 65:6 101 [1] - 2:19 104 [1] - 2:20 106 [2] - 43:9, 15 11 [1] - 26:6 113 [1] - 2:21 114 [2] - 2:20 12 [9] - 113:10, 14; 141:6; 151:23; 157:6; 160:9; 163:20 120 [4] - 10:17; 44:24; 78:11; 138:11 13 [2] - 26:2; 152:12 132 [1] - 105:9 14 [6] - 38:9; 42:14; 106:1; 152:24; 158:15 15 [3] - 9:8; 109:24; 110:5 15-minute [1] - 84:19 150 [1] - 10:20 155,000 [1] - 131:14 16 [1] - 110:1 170 [1] - 131:17 18 [6] - 14:18; 35:13; 36:1, 4, 8; 63:16			
2	2 [9] - 3:4; 62:13; 69:21; 81:24; 82:4, 10; 143:7; 146:20; 150:14 2.4 [1] - 106:1 2.5 [1] - 66:5 20 [7] - 7:6; 35:14;			

21; 82:9; 141:18 adopted [1] - 125:21 advantages [1] - 95:21 advent [1] - 93:9 adverse [2] - 45:1; 66:2 adversely [2] - 111:6, 9 aerial [1] - 80:9 aesthetic [1] - 109:12 affected [3] - 93:7; 111:6, 9 aforementioned [1] - 45:5 ag [1] - 66:18 agencies [1] - 153:10 agenda [3] - 161:20; 162:12, 14 agents [1] - 127:18 aggregate [1] - 77:16 ago [3] - 28:24; 136:12; 149:20 agree [4] - 51:12; 74:22; 79:6; 85:15 agreeable [1] - 44:12 agreed [1] - 150:5 agreeing [1] - 86:6 Agreement [2] - 90:24; 147:19 agreement [16] - 5:8; 51:18; 61:1; 86:6; 90:13; 100:9; 107:12; 114:7, 16, 21, 24; 115:3; 143:18; 145:16, 23; 147:5 agreements [10] - 14:5; 16:6; 29:23; 49:1; 90:18; 93:3; 135:14; 150:7; 152:3 agribusiness [1] - 120:4 Agricultural [1] - 90:24 agricultural [7] - 14:14; 63:14; 66:20; 67:6; 79:9, 12; 106:17 Agriculture [1] - 147:18 agriculture [4] - 66:4, 7; 67:2; 77:2 agriculture-use [1] - 66:7 ahead [16] - 4:1; 8:6; 20:24; 33:3; 34:4; 39:1; 53:17; 58:20; 81:14; 87:3; 104:7;	119:18; 124:20; 130:19; 134:11; 159:18 AIMA [12] - 13:24; 14:4, 19; 15:23; 16:5, 8; 17:10; 40:6, 15, 17; 144:9 air [2] - 23:19; 30:14 airports [1] - 12:24 Alabama [1] - 28:18 Alex [2] - 1:9; 114:19 aligned [1] - 11:13 Allegiance [2] - 4:12 allow [2] - 84:17; 129:3 allowed [2] - 129:1; 135:15 allows [3] - 19:19; 41:14; 64:15 alone [1] - 105:21 alternating [1] - 10:15 alternative [2] - 75:19; 93:12 alternatives [1] - 76:4 aluminum [3] - 9:14; 22:17; 52:6 aluminum-framed [1] - 52:6 ambient [1] - 30:14 amend [1] - 156:17 amendments [3] - 157:24; 159:1, 13 America [3] - 54:19, 21; 132:2 American [2] - 122:4, 14 amount [4] - 11:5; 61:9; 106:21; 125:12 amounts [3] - 10:9; 105:18; 106:9 analyses [1] - 15:16 Analysis [3] - 58:24; 60:10; 71:16 analysis [7] - 59:2; 73:15; 74:4; 75:22; 79:15; 94:7; 95:14 analyze [2] - 94:3; 107:7 analyzed [1] - 98:6 anchoring [1] - 46:14 AND [1] - 1:3 and.. [2] - 32:4; 39:7 Andrew [4] - 1:8; 117:24; 118:1; 140:10 angle [1] - 13:4 animal [2] - 18:22; 19:2 announced [1] -	101:10 annual [2] - 14:24; 153:1 annually [1] - 74:12 anomalously [1] - 12:11 answer [21] - 37:13, 16-18, 20; 38:8, 13; 46:9; 50:18, 21; 61:7, 11; 92:4, 11; 93:16; 96:17; 103:2; 122:22; 127:1; 129:21; 137:17 answer's [1] - 133:5 answered [4] - 37:9; 101:18; 109:18 answering [1] - 88:10 anticipate [3] - 10:11; 37:2; 124:8 anticipates [1] - 40:19 anticipating [2] - 22:21; 27:4 anyway [1] - 135:9 apart [1] - 104:24 apologize [5] - 38:7; 93:14; 96:18; 106:4; 113:20 Appearing [1] - 1:11 appendices [1] - 125:13 appendix [1] - 68:5 Appendix [11] - 36:11, 24; 59:2, 7, 13-14; 60:9; 127:11; 146:13; 147:17 applicable [6] - 13:17; 37:6; 129:12; 144:13; 152:15 Applicant [17] - 1:10; 5:5, 8; 6:11; 19:6; 55:21; 85:8; 87:7; 103:5; 114:6; 125:17; 126:2; 129:21; 130:1; 142:19; 143:6 Applicant's [9] - 3:3; 81:15, 21; 82:3, 10, 15; 145:10 application [61] - 8:10; 20:14; 36:19; 38:11; 41:21; 42:17; 43:2, 4; 59:3, 8; 62:23; 67:22; 80:9; 81:23; 85:15; 91:19, 23; 92:8; 102:9; 103:8; 104:22; 105:11; 106:1; 107:11, 21; 108:11; 109:4, 24; 110:3, 11, 16; 112:15-17,	20; 114:23; 115:24; 117:8, 12; 123:19; 124:12; 125:8; 126:1; 127:13; 129:16, 18; 130:7, 9; 132:15; 133:13; 134:16; 142:6, 17; 143:1; 144:7; 145:9; 147:12; 153:16; 162:15 APPLICATION [1] - 1:1 applications [2] - 91:5 applied [1] - 64:12 apply [3] - 85:13; 152:17; 155:6 appraiser [2] - 127:20 appreciate [2] - 115:22; 123:16 approach [1] - 46:6 appropriate [2] - 85:10; 148:24 approval [16] - 44:10; 48:4; 114:10, 18; 143:20; 145:13, 20, 23; 146:18; 150:24; 151:5; 154:8; 159:20; 160:20; 161:13 Approval [1] - 140:15 approvals [1] - 144:4 approve [15] - 140:22; 146:14, 19; 149:1; 150:20; 154:9, 17; 159:9, 14-15; 160:14, 16, 23 approved [9] - 54:10, 14; 105:10; 114:4; 115:6; 139:2; 140:2; 150:18; 151:14 April [1] - 95:6 archeologists [1] - 137:5 area [30] - 12:24; 14:20; 15:14; 17:7; 18:23; 19:1, 4; 22:7, 9, 24; 30:21; 41:7, 14; 47:3, 7; 51:8, 17; 58:11; 79:6, 18; 80:4; 91:11, 13; 121:2; 129:11; 131:7; 133:9; 136:2 areas [18] - 12:1, 10; 14:18, 21; 15:20; 17:23; 21:12; 27:15; 45:24; 46:11; 47:5, 22; 51:4; 78:19; 82:5; 99:16; 107:7; 138:16 argument [1] - 47:14	arise [1] - 149:23 arrays [4] - 10:20; 13:14; 23:20, 22 arrears [1] - 74:14 arrive [1] - 66:7 arsenic [1] - 123:1 art [1] - 52:6 as-built [1] - 26:20 aspect [2] - 12:18; 41:12 aspects [1] - 14:2 assembled [7] - 28:10, 17; 52:7, 11-12; 54:14; 55:1 assembly [1] - 72:18 assertions [1] - 139:23 assess [1] - 65:17 Assessment [2] - 146:6; 148:1 assessment [5] - 64:1; 65:3; 75:18; 147:9; 150:22 assessments [1] - 147:8 assessors [1] - 127:18 assets [1] - 96:1 assign [1] - 157:7 assigned [1] - 157:9 assignment [3] - 151:24; 156:19; 157:5 assignments [1] - 157:8 assistance [1] - 29:15 associated [5] - 76:12; 87:20; 91:3; 107:8; 145:18 assume [7] - 47:13; 72:16, 19; 73:16, 21; 90:17; 161:20 assumed [1] - 69:3 assuming [5] - 44:6; 45:1; 54:6; 76:10; 93:5 assumptions [1] - 75:18 assurance [3] - 85:11; 86:7; 143:19 attach [2] - 139:2; 140:2 attached [3] - 9:24; 160:16, 24 attempt [1] - 86:17 attention [1] - 4:4 attorney [5] - 92:3, 11, 15; 138:24; 163:4 attorney-client [1] - 92:3
---	---	--	--	--

attorneys [4] - 31:6; 84:8; 162:24; 163:22 auctions [2] - 122:8, 13 audible [1] - 50:4 AUDIENCE [1] - 31:14 audience [7] - 101:7; 105:5; 115:15; 125:1; 156:11; 162:23; 164:2 Audience [6] - 32:14; 103:10, 13; 136:8, 17; 163:3 August [1] - 1:4 author [1] - 127:20 automatically [1] - 13:3 available [3] - 88:13; 99:4; 116:13 average [4] - 63:22, 24; 106:22 avoid [6] - 17:23; 18:2, 23; 20:9; 25:6; 144:21 avoidance [1] - 17:16 aware [5] - 54:19; 91:21; 92:6; 111:10, 13 axis [1] - 9:21 aye [3] - 149:7; 160:1; 161:6 Aye [10] - 149:8-10; 160:2-4; 161:7; 164:17	50:11; 53:6; 55:9, 17; 56:1; 58:1, 17, 21-22; 59:5; 61:10; 62:2; 80:20; 81:3, 8, 13; 82:2, 16; 85:2, 8; 86:4, 13, 16, 20; 87:4, 11; 88:5, 7, 12; 91:24; 102:19; 103:2; 112:11; 115:19; 117:16; 119:2; 124:15, 18, 22 Barry [26] - 1:10; 2:3, 12, 16; 5:18, 23; 20:19; 50:10; 55:8, 16; 58:20; 61:8; 62:17; 80:18; 82:14; 84:20, 24; 87:3; 102:17, 24; 112:10; 124:3, 10; 130:5; 132:12; 162:24 base [4] - 29:11; 48:16; 96:4; 119:21 based [13] - 8:1; 16:19; 26:20; 66:10; 72:2; 73:7; 74:12, 19; 77:21; 86:8; 113:19; 114:14 basins [1] - 11:6 battery [2] - 153:15, 17 beams [3] - 10:1; 11:11 bearing [1] - 90:12 Bears [1] - 88:5 beating [1] - 30:9 Beautiful [2] - 93:20; 98:3 beautiful [1] - 109:12 beauty's [1] - 109:13 become [2] - 20:9; 148:6 becomes [2] - 21:16; 63:18 beds [1] - 120:2 began [1] - 120:24 begin [1] - 5:18 beginning [1] - 9:2 behalf [6] - 6:11; 55:21; 87:7; 126:2; 129:20, 24 behind [3] - 9:7; 133:21; 135:18 beholder [3] - 109:5, 13 beings [1] - 137:16 belabor [1] - 128:12 below [2] - 40:12; 68:17 beneficial [2] - 46:11;	109:7 beneficiation [1] - 140:17 benefit [4] - 76:17; 95:8; 98:22; 99:10 benefits [4] - 65:2; 68:7; 76:15; 126:21 best [5] - 46:6; 119:4; 122:19; 131:24; 165:10 bet [2] - 133:3 between [19] - 5:8; 10:2; 16:6; 17:5; 19:10; 33:23; 61:4; 64:10; 65:15; 74:16; 75:1; 79:13; 89:24; 93:24; 154:11; 155:12; 156:9 beyond [3] - 40:16; 43:19; 127:4 bid [1] - 54:4 bifacial [4] - 9:4; 34:11; 52:7 big [3] - 69:6; 70:9 Big [2] - 93:20; 98:3 bigger [2] - 22:7; 122:5 biggest [1] - 138:9 bill [8] - 63:15; 94:7, 9, 12; 95:14; 98:7; 100:22 Bill [2] - 93:20; 98:3 billion [1] - 101:12 bills [2] - 90:6; 135:24 binder [1] - 104:24 binders [1] - 104:23 biologically [1] - 22:21 biologist [1] - 136:23 biology [1] - 82:5 bird [2] - 18:17, 22 birds [5] - 107:23; 110:4; 111:12; 135:7 bit [13] - 6:22; 40:23; 56:16; 96:7; 107:10; 108:1; 110:18; 128:22; 132:16; 137:20; 148:6; 149:14 Bloomington [1] - 57:24 Board [45] - 1:13; 28:7, 21; 31:2; 60:15; 63:10; 65:23; 67:18; 81:22; 82:11; 83:2; 91:22; 92:8; 100:3; 101:2; 102:5; 105:4; 111:17; 112:6; 114:17;	115:4; 118:20; 133:12; 139:21; 140:16, 20-21; 141:13; 143:18, 20; 145:20, 23; 146:17; 147:16; 150:17; 151:14; 155:6; 157:15; 159:7; 160:11; 161:16; 162:9, 18; 163:22 board [6] - 92:13; 124:24; 134:14; 155:23; 156:10 Board's [1] - 114:10 body [1] - 59:18 boils [1] - 18:21 bold [2] - 141:23 bond [3] - 25:18, 21; 26:5 bottom [4] - 19:10, 18; 69:2; 127:22 bottoms [1] - 20:11 bought [1] - 138:4 bound [2] - 90:19, 21 boundary [1] - 127:5 box [1] - 84:8 break [10] - 83:11-14, 16; 84:15; 108:23; 139:6, 9 breakdown [2] - 59:14, 17 BREDESEN [2] - 135:20; 136:14 Bredesen [1] - 135:21 breeding [1] - 35:17 bridge [1] - 65:8 brief [1] - 119:16 briefly [1] - 132:11 bring [4] - 93:9; 95:17; 97:15; 132:19 bringing [1] - 108:10 Bristole [1] - 1:16 broad [1] - 16:7 broader [1] - 94:21 brought [4] - 54:24; 104:24; 110:7; 133:10 buck [1] - 137:23 budget [1] - 70:4 bugs [1] - 135:3 build [1] - 95:18 building [24] - 7:6; 16:17; 23:14, 17; 53:12; 64:2; 74:7; 85:20; 86:1; 96:15; 99:16; 115:4; 145:3, 11, 15, 21; 147:6, 10; 150:2, 9, 16, 21; 151:15; 162:11 buildings [2] - 23:3;	144:12 built [7] - 9:16; 19:17; 22:23; 26:20; 27:22; 89:18; 90:3 bunch [4] - 25:3; 69:9; 93:10; 95:17 burden [3] - 124:11; 132:13 buried [1] - 146:23 bushes [1] - 151:10 business [5] - 57:4; 89:23; 90:2; 94:16; 96:15 busy [1] - 93:23 buyer [1] - 152:7 buying [1] - 122:8 BY [38] - 1:2; 6:15; 8:8; 21:3; 24:22; 25:12; 28:9, 23; 33:8; 34:5; 37:11; 39:4, 11; 42:10; 49:17; 50:16; 52:2, 19; 53:9, 19; 56:1; 58:22; 60:7, 18; 63:12; 66:1; 68:3; 71:2; 87:11; 88:20; 92:23; 98:21; 100:5; 101:4; 111:4, 22; 113:5 bypass [1] - 22:8
B				
B-r-e-d-e-s-e-n [1] - 135:21 bachelor's [1] - 88:3 background [4] - 6:23; 33:10; 37:14; 88:14 backhoe [1] - 52:23 backstop [1] - 151:3 balance [2] - 89:14; 101:23 balanced [1] - 148:11 balancing [2] - 148:7, 11 bald [2] - 107:20; 110:2 ballpark [1] - 61:3 bare [4] - 12:1; 14:21; 30:15; 120:6 barren [1] - 122:17 BARRY [49] - 5:10, 19, 24; 6:8, 15; 7:16; 8:7; 20:16; 37:9;	50:11; 53:6; 55:9, 17; 56:1; 58:1, 17, 21-22; 59:5; 61:10; 62:2; 80:20; 81:3, 8, 13; 82:2, 16; 85:2, 8; 86:4, 13, 16, 20; 87:4, 11; 88:5, 7, 12; 91:24; 102:19; 103:2; 112:11; 115:19; 117:16; 119:2; 124:15, 18, 22 Barry [26] - 1:10; 2:3, 12, 16; 5:18, 23; 20:19; 50:10; 55:8, 16; 58:20; 61:8; 62:17; 80:18; 82:14; 84:20, 24; 87:3; 102:17, 24; 112:10; 124:3, 10; 130:5; 132:12; 162:24 base [4] - 29:11; 48:16; 96:4; 119:21 based [13] - 8:1; 16:19; 26:20; 66:10; 72:2; 73:7; 74:12, 19; 77:21; 86:8; 113:19; 114:14 basins [1] - 11:6 battery [2] - 153:15, 17 beams [3] - 10:1; 11:11 bearing [1] - 90:12 Bears [1] - 88:5 beating [1] - 30:9 Beautiful [2] - 93:20; 98:3 beautiful [1] - 109:12 beauty's [1] - 109:13 become [2] - 20:9; 148:6 becomes [2] - 21:16; 63:18 beds [1] - 120:2 began [1] - 120:24 begin [1] - 5:18 beginning [1] - 9:2 behalf [6] - 6:11; 55:21; 87:7; 126:2; 129:20, 24 behind [3] - 9:7; 133:21; 135:18 beholder [3] - 109:5, 13 beings [1] - 137:16 belabor [1] - 128:12 below [2] - 40:12; 68:17 beneficial [2] - 46:11;	109:7 beneficiation [1] - 140:17 benefit [4] - 76:17; 95:8; 98:22; 99:10 benefits [4] - 65:2; 68:7; 76:15; 126:21 best [5] - 46:6; 119:4; 122:19; 131:24; 165:10 bet [2] - 133:3 between [19] - 5:8; 10:2; 16:6; 17:5; 19:10; 33:23; 61:4; 64:10; 65:15; 74:16; 75:1; 79:13; 89:24; 93:24; 154:11; 155:12; 156:9 beyond [3] - 40:16; 43:19; 127:4 bid [1] - 54:4 bifacial [4] - 9:4; 34:11; 52:7 big [3] - 69:6; 70:9 Big [2] - 93:20; 98:3 bigger [2] - 22:7; 122:5 biggest [1] - 138:9 bill [8] - 63:15; 94:7, 9, 12; 95:14; 98:7; 100:22 Bill [2] - 93:20; 98:3 billion [1] - 101:12 bills [2] - 90:6; 135:24 binder [1] - 104:24 binders [1] - 104:23 biologically [1] - 22:21 biologist [1] - 136:23 biology [1] - 82:5 bird [2] - 18:17, 22 birds [5] - 107:23; 110:4; 111:12; 135:7 bit [13] - 6:22; 40:23; 56:16; 96:7; 107:10; 108:1; 110:18; 128:22; 132:16; 137:20; 148:6; 149:14 Bloomington [1] - 57:24 Board [45] - 1:13; 28:7, 21; 31:2; 60:15; 63:10; 65:23; 67:18; 81:22; 82:11; 83:2; 91:22; 92:8; 100:3; 101:2; 102:5; 105:4; 111:17; 112:6; 114:17;	115:4; 118:20; 133:12; 139:21; 140:16, 20-21; 141:13; 143:18, 20; 145:20, 23; 146:17; 147:16; 150:17; 151:14; 155:6; 157:15; 159:7; 160:11; 161:16; 162:9, 18; 163:22 board [6] - 92:13; 124:24; 134:14; 155:23; 156:10 Board's [1] - 114:10 body [1] - 59:18 boils [1] - 18:21 bold [2] - 141:23 bond [3] - 25:18, 21; 26:5 bottom [4] - 19:10, 18; 69:2; 127:22 bottoms [1] - 20:11 bought [1] - 138:4 bound [2] - 90:19, 21 boundary [1] - 127:5 box [1] - 84:8 break [10] - 83:11-14, 16; 84:15; 108:23; 139:6, 9 breakdown [2] - 59:14, 17 BREDESEN [2] - 135:20; 136:14 Bredesen [1] - 135:21 breeding [1] - 35:17 bridge [1] - 65:8 brief [1] - 119:16 briefly [1] - 132:11 bring [4] - 93:9; 95:17; 97:15; 132:19 bringing [1] - 108:10 Bristole [1] - 1:16 broad [1] - 16:7 broader [1] - 94:21 brought [4] - 54:24; 104:24; 110:7; 133:10 buck [1] - 137:23 budget [1] - 70:4 bugs [1] - 135:3 build [1] - 95:18 building [24] - 7:6; 16:17; 23:14, 17; 53:12; 64:2; 74:7; 85:20; 86:1; 96:15; 99:16; 115:4; 145:3, 11, 15, 21; 147:6, 10; 150:2, 9, 16, 21; 151:15; 162:11 buildings [2] - 23:3;	144:12 built [7] - 9:16; 19:17; 22:23; 26:20; 27:22; 89:18; 90:3 bunch [4] - 25:3; 69:9; 93:10; 95:17 burden [3] - 124:11; 132:13 buried [1] - 146:23 bushes [1] - 151:10 business [5] - 57:4; 89:23; 90:2; 94:16; 96:15 busy [1] - 93:23 buyer [1] - 152:7 buying [1] - 122:8 BY [38] - 1:2; 6:15; 8:8; 21:3; 24:22; 25:12; 28:9, 23; 33:8; 34:5; 37:11; 39:4, 11; 42:10; 49:17; 50:16; 52:2, 19; 53:9, 19; 56:1; 58:22; 60:7, 18; 63:12; 66:1; 68:3; 71:2; 87:11; 88:20; 92:23; 98:21; 100:5; 101:4; 111:4, 22; 113:5 bypass [1] - 22:8
C				
	cable [2] - 40:18 cables [2] - 14:6, 8 cadmium [1] - 122:24 calculation [1] - 71:24 Canadian [1] - 110:8 cannot [2] - 23:23; 93:12 capability [1] - 157:17 capacity [2] - 64:6 capital [1] - 71:18 captured [1] - 22:24 care [1] - 85:5 career [1] - 7:5 carries [4] - 149:12; 160:6; 161:11, 13 carry [1] - 91:3 case [10] - 10:6; 12:11; 17:6; 88:13; 90:16; 103:5; 105:1; 108:18; 121:9; 139:24 cases [1] - 18:6 cash [3] - 89:13; 122:13 causing [2] - 16:21; 64:17 cell [1] - 9:10			

cement [1] - 10:5 Center [1] - 56:21 CENTER [1] - 1:3 central [1] - 54:24 certain [7] - 25:24; 72:11; 99:3; 110:14; 140:2; 157:8, 10 certainly [4] - 32:18; 95:11; 96:10, 15 CERTIFICATE [1] - 165:3 certificates [2] - 147:20 certification [1] - 7:17 certifications [1] - 144:4 certify [1] - 165:6 chain [3] - 66:21; 75:9; 76:12 chains [1] - 77:7 Chairman [4] - 1:16; 4:21; 28:5; 117:14 chairman [12] - 4:1, 24; 25:9; 50:14; 60:5; 98:19; 100:1; 124:23; 161:15; 162:17; 164:8, 23 chalky [1] - 29:7 Champaign [1] - 135:2 change [12] - 85:3; 90:13; 133:8; 142:20; 155:12-14; 156:8, 13, 17; 159:20 changed [2] - 27:1; 113:19 changes [15] - 37:2; 90:10; 93:8; 94:9, 12; 95:2; 98:3; 144:23; 146:1; 147:24; 148:19; 152:13; 157:24; 159:1, 13 Charleston [2] - 1:24; 135:3 chart [1] - 110:3 check [7] - 69:18; 73:7, 9, 12, 14; 108:4; 137:20 checking [1] - 108:7 checks [2] - 37:14; 108:5 China [2] - 28:14; 54:2 Chinese [2] - 25:3, 5 chose [2] - 100:7; 162:12 Chris [1] - 73:20 circle [1] - 29:6 Circuit [1] - 165:5	circumstance [1] - 18:18 cite [1] - 106:7 city [1] - 61:24 City [18] - 36:16; 49:4; 51:16; 53:10; 59:19; 60:20; 61:9, 15, 18-19; 62:12, 20; 91:10, 13; 101:15; 105:13; 122:17; 130:23 civil [3] - 6:24; 11:2, 9 civilized [1] - 137:15 clarification [1] - 117:15 clarify [3] - 19:15; 53:20; 114:19 Claus [1] - 118:13 clause [1] - 157:5 CLAUSING [3] - 118:8, 13; 120:17 Clausing [4] - 118:8, 13; 119:14; 120:15 Clayton [14] - 1:13; 2:4, 9, 17; 4:15; 21:1; 24:17; 51:22; 92:21; 98:16; 105:22; 149:4; 161:4; 164:13 CLAYTON [35] - 4:16; 20:23; 21:3; 24:13; 51:23; 52:2, 15; 92:23; 98:14; 148:22; 149:3, 8, 17; 154:6, 18, 20, 23; 155:2, 20; 156:3, 6, 18, 24; 157:2, 18, 21, 23; 159:3, 19; 160:2; 161:3, 7; 162:2; 164:12, 18 clean [1] - 40:4 Clean [1] - 100:21 cleaned [1] - 109:2 clear [7] - 50:18; 75:16; 83:17; 85:15; 86:16; 126:9; 127:3 client [2] - 92:3; 139:20 close [1] - 110:10 closed [4] - 23:15; 101:10; 123:23 closely [1] - 93:22 closer [1] - 45:17 closest [4] - 30:2; 45:2, 7; 49:19 closing [13] - 124:2, 4-5, 7-8, 14, 20; 130:6, 8, 17; 132:8; 133:16; 138:21	coal [5] - 93:10, 13; 95:16; 96:4, 8 coal-powered [1] - 93:10 code [4] - 43:16, 19; 69:7; 129:2 cofounder [1] - 56:21 cognizant [1] - 153:8 CohnReznick [2] - 128:7, 13 COLES [1] - 1:1 Coles [66] - 1:8, 17, 23; 4:8; 32:20; 35:9; 36:7, 11, 16, 20, 23; 37:1, 4-5, 7-8; 41:23; 42:14; 44:17; 49:23; 59:18; 61:17, 20, 23; 62:24; 66:5; 67:9; 68:18; 69:13; 70:21; 71:10; 74:17; 76:21; 77:5, 7, 12, 17; 78:6, 18; 79:5, 8; 80:4; 83:21, 24; 85:13; 90:1; 91:22; 92:8; 102:12; 103:23; 105:12; 107:15, 18-19; 112:22; 113:9; 118:22; 119:21; 139:12, 21; 141:7; 143:16, 24 combing [1] - 106:18 comfort [1] - 132:22 comfortable [2] - 101:19; 102:1 coming [10] - 7:8; 13:12; 54:2; 65:7; 96:12; 132:23; 145:3; 155:21; 163:21; 164:6 comment [24] - 83:20; 84:3, 11, 16; 103:18; 117:1, 20; 119:4-6, 8, 10, 14; 121:16, 18; 123:17, 20, 22-23; 135:10; 162:13; 163:7 comments [4] - 116:3; 118:10, 18 COMMERCIAL [1] - 1:2 commercial [3] - 85:21; 86:2; 143:13 Commission [1] - 151:19 commissioned [2] - 11:21; 100:18 commissioning [2] - 12:2; 35:23 commissions [1] -	57:14 commit [2] - 28:14; 52:14 committed [1] - 24:6 Committee [9] - 4:8; 20:22; 111:2; 119:9; 138:22; 139:12, 21; 141:8; 155:22 COMMITTEE [1] - 1:1 committee [31] - 24:18; 50:14; 53:3; 55:5; 59:10; 60:4, 14; 80:22; 81:22; 82:11; 83:1; 88:18; 92:21; 93:1; 98:19; 102:21; 111:16; 115:11; 118:19; 124:1, 24; 125:6, 23; 139:11; 140:13; 141:1, 10; 162:12, 14; 163:21 committee's [2] - 116:12; 140:17 committees [1] - 94:1 common [1] - 22:19 communications [1] - 146:23 communities [1] - 99:15 Community [1] - 62:13 community [4] - 57:1; 71:21; 99:5; 126:21 compact [2] - 27:15, 18 companies [15] - 13:8; 34:17, 22-23; 53:20, 24; 54:5; 89:5-8, 22; 90:8; 99:3; 101:16 company [32] - 34:12, 15, 19; 54:21; 56:11, 14; 57:3; 58:23; 74:2; 77:10; 87:20, 23; 88:11, 14-15; 89:12; 90:5, 12, 20; 95:1; 99:7, 10; 102:3; 127:19; 134:15; 135:12, 14; 155:5; 163:14, 17 company's [2] - 59:22; 101:22 compete [3] - 93:12; 95:19; 96:9 complain [1] - 108:12 complaint [12] - 38:9-11; 42:15, 19; 158:3, 7, 17 Complaints [1] - 158:14	complaints [1] - 108:10 complement [1] - 97:19 complete [5] - 11:20; 12:2; 21:11; 44:24; 165:8 completed [8] - 48:7, 15, 22; 81:10; 89:11; 91:14; 108:15; 120:3 completely [1] - 62:18 compliance [6] - 19:24; 38:2; 50:7; 124:12; 144:4; 148:13 Compliant [1] - 158:15 comply [9] - 42:18, 21; 43:1, 3-4; 47:15; 51:13; 147:15; 157:19 components [3] - 8:20; 9:2; 22:18 comprehensive [1] - 129:9 comprising [1] - 105:9 concern [3] - 15:17; 20:6; 21:17 concerned [2] - 66:2; 153:5 concerns [4] - 9:12; 16:2; 27:5; 138:1 concluded [1] - 138:21 conclusion [1] - 107:1 concrete [8] - 10:5; 15:12, 18, 20; 23:1, 8 condition [3] - 152:24; 153:21; 155:8 conditioned [1] - 26:17 conditioner [1] - 23:19 conditions [42] - 9:17; 15:17; 46:3; 74:24; 89:9; 91:2; 114:4; 139:1; 140:1-3, 20, 23; 141:10; 145:13; 146:15, 18; 149:14, 19, 21-22; 150:6, 19, 21; 152:4; 156:15, 17; 157:20; 158:9, 11, 14; 159:6, 8, 10, 12, 20; 160:16, 21, 24; 161:14
---	--	---	---	---

Conditions [1] - 140:14 conduct [2] - 138:23; 162:22 confidence [1] - 20:4 confidences [1] - 92:6 confident [1] - 98:7 confirm [1] - 26:24 conform [2] - 129:12; 140:3 Congress [1] - 97:24 conjunction [3] - 14:22; 16:15; 18:19 connection [2] - 8:9; 19:11 consider [6] - 84:10, 14; 94:5; 125:24; 134:15 considered [9] - 41:11, 16; 81:22; 82:10; 83:1, 23; 118:19; 130:18; 139:24 considering [2] - 24:3; 139:22 consist [1] - 126:17 consistent [1] - 129:10 consists [2] - 14:17; 125:12 construct [1] - 100:10 construction [32] - 7:5; 8:21; 11:1, 3, 24; 16:10, 13, 20; 18:4, 12-13; 21:10; 26:18, 20; 27:13; 33:21; 35:13; 48:8; 49:2; 52:11; 53:11; 54:7; 59:15; 72:24; 74:5; 89:17; 90:14; 91:14; 97:13; 101:14; 121:7 construction's [1] - 15:8 construction-wise [1] - 91:14 consult [1] - 92:11 consultants [6] - 18:19; 41:24; 70:21; 102:12; 112:22; 118:22 consulting [1] - 144:20 Consumer [1] - 64:9 Cont'd [3] - 2:9 contain [1] - 75:16 container [1] - 10:22 containment [1] - 22:23 contains [1] - 74:16	continue [4] - 4:9; 50:23; 94:11; 132:3 CONTINUED [4] - 50:15; 52:1, 18; 53:8 contract [3] - 28:13; 34:18, 21 contractor [5] - 7:7; 18:19; 38:1; 100:7 contractors [1] - 51:6 contradicts [1] - 107:10 contrast [1] - 128:5 Control [2] - 50:8; 147:16 controlled [1] - 12:6 controls [1] - 13:17 convert [1] - 10:14 cools [1] - 30:18 coordinate [2] - 50:23; 51:1 coordinated [1] - 50:19 coordination [1] - 14:23 copied [1] - 68:22 copies [1] - 83:4 copper [1] - 22:17 copy [2] - 113:16; 140:13 core [1] - 99:17 corn [3] - 80:12; 120:5 corner [1] - 15:21 corporation [1] - 98:23 corps [1] - 137:4 correct [27] - 8:15; 15:10; 35:7; 36:2, 9; 40:21; 43:6, 24; 44:8; 49:5; 54:12, 22; 65:4; 73:18; 74:20; 82:2; 85:18; 86:8; 89:4; 98:24; 108:17; 114:13; 117:9; 156:2; 165:8 correctly [1] - 73:2 correlates [1] - 25:17 correlation [1] - 25:18 corrosion [2] - 10:9; 21:16 cost [18] - 40:19; 64:2; 71:17; 72:4, 9; 80:6, 9, 12; 85:10, 16; 95:22; 114:9, 11-12, 17; 145:6, 17, 22 counsel [1] - 119:1 Counsel [2] - 1:8, 10 count [2] - 67:3, 6 counted [1] - 66:17 counter [1] - 126:22	countered [1] - 128:14 counterevidence [1] - 126:8 counties [4] - 48:24; 77:8; 131:7; 163:20 Counties [4] - 28:16; 69:14; 90:1; 91:16 countries [2] - 54:18; 97:2 country [5] - 73:9; 96:10; 137:12 county [2] - 28:21; 131:22 COUNTY [2] - 1:1, 3 County [152] - 1:8, 13, 17, 23; 4:8; 5:9; 12:13; 19:7; 28:7; 31:2; 32:20; 35:9; 36:7, 11, 16-17, 20, 23; 37:1, 3, 5, 8; 41:23; 42:14; 43:10; 44:17; 48:2, 10, 22-23; 49:12; 59:19; 60:15; 61:13, 17, 20, 23; 62:19, 24; 63:9; 65:1, 23; 66:5, 10; 67:9, 17; 68:18; 70:21; 71:10; 74:17; 76:14, 21-23; 77:5, 7, 12, 17; 78:6, 14, 18; 79:5, 8, 17; 80:5; 81:22; 82:11; 83:2, 21-22, 24; 84:1; 85:13; 90:13; 91:1, 17-18, 22; 92:8; 100:2; 101:1; 102:5, 12; 103:23; 105:4, 7, 10, 12-13; 107:15, 18-19; 111:17; 112:6, 22; 113:8; 114:7-10, 17; 115:4; 116:10; 118:20, 22; 119:21; 124:13; 125:21; 133:9, 12; 138:10; 139:13, 21; 140:4, 16, 20-21; 141:7, 13; 143:16, 18-19, 24; 145:16, 20, 23; 146:17; 150:17, 24; 151:5, 14; 155:6, 8, 10; 156:8; 157:10, 15; 159:7; 160:11; 161:15; 162:9, 18; 163:22 County's [3] - 114:11, 15; 143:23 couple [12] - 35:18; 37:12; 59:19; 68:1;	101:14; 124:1; 125:13; 128:1; 150:11; 155:12; 162:23 course [2] - 44:11; 85:13 Court [4] - 1:23; 148:8; 165:4, 16 COURT [2] - 118:16; 136:11 courteous [1] - 137:16 Courthouse [1] - 1:23 Courtroom [1] - 162:10 courtroom [3] - 140:5; 162:5 cover [7] - 14:24; 17:12; 36:15; 121:11; 146:5, 7; 150:11 coverage [1] - 15:2 covered [3] - 47:24; 147:1; 158:22 covering [1] - 146:24 covers [6] - 15:24; 17:11; 36:22; 40:6; 61:20; 142:16 COX [25] - 4:18; 24:19, 22; 25:8; 66:1; 67:15; 88:20; 92:16, 18; 111:4, 14; 149:5, 9; 156:10; 159:18, 23; 160:3, 23; 161:8, 17, 22; 162:1, 5; 164:15, 17 Cox [19] - 1:14; 2:4, 14, 17, 20; 4:17; 24:20; 65:23; 67:16; 71:4; 88:18; 92:19; 105:23; 109:23; 111:2, 15; 149:6; 159:24; 164:16 crack [1] - 108:23 create [2] - 18:20; 95:3 created [3] - 18:18; 59:15; 73:4 credit [1] - 98:4 credits [3] - 95:4; 98:1, 8 crew [2] - 12:12; 18:16 crews [3] - 13:12; 21:10 critical [3] - 9:2; 96:1; 97:11 crop [8] - 14:24; 15:4; 40:4; 66:3; 77:2; 79:8; 121:2, 4	cropland [1] - 131:14 crops [5] - 21:14; 76:10; 121:11; 135:6 cross [4] - 32:23; 78:24; 84:7; 112:10 Cross [27] - 2:4-10, 12-15, 17 CROSS [27] - 21:2; 24:21; 25:11; 28:8, 22; 33:7; 39:3; 42:9; 50:15; 52:1, 18; 53:8, 18; 60:6, 17; 63:11; 65:24; 68:2; 71:1; 88:19; 92:22; 98:20; 100:4; 101:3; 111:3, 21; 113:4 cross-examination [3] - 32:23; 84:7; 112:10 CROSS-EXAMINATION [27] - 21:2; 24:21; 25:11; 28:8, 22; 33:7; 39:3; 42:9; 50:15; 52:1, 18; 53:8, 18; 60:6, 17; 63:11; 65:24; 68:2; 71:1; 88:19; 92:22; 98:20; 100:4; 101:3; 111:3, 21; 113:4 cruise [1] - 11:11 crumple [1] - 159:10 crushed [1] - 29:11 crushed-line [1] - 29:11 crystalline [4] - 9:4, 9; 34:11; 52:7 crystallines [1] - 34:16 CSR [1] - 1:22 Cumberland [19] - 36:16; 37:1, 3, 6; 49:12; 68:19; 69:13; 76:23; 78:14, 19; 80:5; 83:22; 84:1; 90:1; 105:10; 107:19; 114:24; 138:10; 144:1 Cumberland/Coles [1] - 91:16 cure [1] - 158:6 curiosity [1] - 117:20 curious [3] - 25:16; 27:12; 137:1 current [5] - 10:14; 74:23; 75:4; 94:5
--	---	---	---	---

D				
Dagmi [1] - 135:20 DAGMI [1] - 135:20 daily [1] - 108:5 damage [5] - 22:6; 108:24; 123:8; 135:1 damaged [1] - 131:8 damages [1] - 134:19 damaging [1] - 120:3 dangles [1] - 138:10 dare [1] - 102:24 Darrell [2] - 1:14; 4:17 dash [1] - 134:10 data [2] - 74:13; 127:15 date [3] - 27:8; 85:21; 86:2 Dated [1] - 165:21 dated [1] - 117:17 daunting [1] - 84:9 David [2] - 55:9; 56:4 DAVID [3] - 2:11; 55:20; 56:4 daylight [1] - 45:19 days [3] - 22:20; 80:7, 10 dead [1] - 151:21 deal [3] - 60:9; 140:4; 152:3 dealing [2] - 143:18; 149:18 deals [16] - 143:12; 144:3; 146:22; 147:7, 20; 150:14; 151:7, 23; 152:12, 21; 153:15, 21; 154:5; 157:14; 158:6 dealt [1] - 121:8 decide [1] - 160:10 decided [1] - 145:10 decision [1] - 83:1 decisions [3] - 87:24; 139:10; 160:13 decommission [1] - 155:9 decommissioned [6] - 13:23; 14:2; 15:1; 37:3; 100:13; 121:1 decommissioning [39] - 5:9; 8:23; 10:7; 13:21; 14:22; 27:14; 36:10; 13, 18, 20-21; 85:10, 17; 86:9; 90:15; 107:14, 16, 18; 108:18; 114:1, 6, 8, 21-22, 24; 115:1; 143:12,	14, 18; 144:2; 145:2, 16-17, 22; 149:24; 152:5; 155:11 Decommissioning [1] - 143:15 decompacting [1] - 14:17 decrease [1] - 106:22 deem [2] - 79:14; 148:3 deep [3] - 21:4; 35:6; 46:21 default [1] - 42:24 defer [1] - 109:18 define [1] - 99:19 defined [3] - 99:20; 153:22 definition [1] - 41:5 deflect [1] - 13:4 degradation [1] - 26:1 degrading [1] - 119:24 degree [2] - 6:24; 88:2 degrees [1] - 41:1 delaying [1] - 138:13 deliberations [1] - 138:23 delivered [1] - 28:17 demand [2] - 54:7; 96:12 demands [2] - 119:22 demonstrate [2] - 101:16; 157:15 demonstrated [1] - 148:13 demonstrates [1] - 129:17 demonstrating [1] - 144:4 demonstration [1] - 147:14 denied [2] - 91:19, 23 denies [1] - 92:8 deny [4] - 133:13; 140:22; 160:15 dependent [2] - 64:5; 65:11 deployed [1] - 15:18 depreciate [1] - 64:19 depreciated [1] - 64:22 depreciation [3] - 64:14, 16, 18 described [1] - 70:9 description [1] - 75:4 DESCRIPTION [1] - 3:2 descriptive [1] - 71:9 desert [1] - 120:6	Design [1] - 142:18 design [7] - 16:10, 13-14, 18; 43:11; 147:22 designate [1] - 58:2 designated [1] - 127:20 designation [1] - 98:23 designs [1] - 11:7 despite [1] - 94:11 detail [3] - 9:18; 14:1; 149:16 detailed [2] - 71:17; 72:9 details [2] - 142:10; 143:5 determination [1] - 114:12 determine [1] - 64:3 determined [2] - 64:1, 5 detrimental [3] - 109:5, 7 developed [2] - 73:22; 74:1 developer [5] - 47:24; 71:19; 115:3; 140:3; 154:12 developers [1] - 94:20 developing [1] - 94:14 DEVELOPMENT [1] - 1:1 development [11] - 33:22, 24; 34:1; 74:6; 87:17; 91:9, 18; 107:2; 128:16; 131:14; 133:7 Development [9] - 4:8; 20:22; 111:2; 119:9; 138:22; 139:12, 20; 141:7; 155:22 dies [1] - 151:18 difference [6] - 30:21; 69:7; 70:9, 11; 84:5; 99:2 different [18] - 26:23; 34:9; 48:24; 68:20, 24; 69:9; 74:17; 75:17; 89:6, 21; 95:7; 96:13; 99:10; 100:20; 101:17; 107:23; 138:17 differentiated [1] - 94:19 difficult [1] - 23:12 DIRECT [3] - 6:14; 55:24; 87:10 direct [3] - 8:4; 10:14;	94:24 Direct [3] - 2:3, 12, 16 directed [1] - 125:24 directly [5] - 9:6; 10:1, 6; 66:18; 69:1 director [2] - 56:24; 73:15 Director [3] - 1:18; 41:24; 151:20 discharge [1] - 152:20 discuss [4] - 8:19; 9:1; 13:21; 17:21 discussed [6] - 10:17; 13:16, 24; 51:17; 126:11 discussing [2] - 88:10; 139:22 Discussion [1] - 31:21 discussion [10] - 15:8; 17:16, 19; 19:9; 26:11; 69:24; 91:15; 109:6; 125:2; 127:12 dispatch [1] - 97:20 disposed [1] - 14:12 disruption [4] - 42:8; 85:12; 121:7; 129:6 disservice [1] - 131:21 distance [2] - 19:11; 45:17 distances [1] - 10:16 distinction [1] - 83:20 District [4] - 28:21; 62:13; 68:13; 117:18 district [8] - 51:12, 15; 63:1, 21; 68:21; 69:22; 70:2, 12 districts [11] - 31:4; 50:17; 59:19; 63:22; 67:20; 68:23; 69:23; 102:7; 112:8; 152:15 ditches [1] - 137:4 dive [5] - 125:22; 140:24; 141:2, 4, 9 diversify [1] - 119:21 diversifying [1] - 135:24 divided [1] - 70:5 DNA [1] - 99:18 doctor [3] - 56:6, 8 document [13] - 36:22; 125:20; 127:13; 129:19; 141:6, 16, 22; 154:24; 155:2; 160:8 documentation [1] -	125:12 documents [7] - 126:3; 140:13, 24; 141:2, 18; 143:10; 158:4 Doggone [1] - 31:15 dollar [3] - 73:3; 105:18; 106:8 dollars [6] - 62:15; 63:5; 72:11; 101:11; 154:2 domestic [1] - 34:22 domestically [2] - 10:11; 28:12 domestically-sourced [1] - 28:12 done [17] - 11:9; 15:15; 16:19; 26:17; 27:7; 40:7; 75:21; 78:1; 94:7; 95:13; 108:18; 110:21; 127:17, 19; 128:6; 163:19 door [2] - 23:15; 30:4 DOTY [4] - 63:12; 65:20; 100:5, 24 Doty [5] - 1:14; 2:13, 18; 63:10; 100:3 double [2] - 69:18; 118:6 double-check [1] - 69:18 Doughty [1] - 4:19 down [18] - 18:21; 27:6; 29:3; 30:9, 18; 39:13; 40:3; 52:23; 55:7; 64:18, 22; 68:12; 80:24; 102:22; 133:11; 137:9, 14; 162:13 downcast [1] - 146:21 downstate [1] - 163:20 dozen [1] - 7:13 Dr [12] - 55:9; 58:2, 8, 23; 59:6, 21; 60:4; 61:10; 63:3; 80:22, 24; 126:19 DR [3] - 2:11; 55:13, 20 draft [8] - 114:4; 142:4; 148:20; 149:1, 19, 21; 150:5 drafted [2] - 150:5; 159:15 drain [12] - 16:15; 17:4, 12, 15-16; 18:1, 11; 21:8, 14, 21; 152:12 drainage [23] - 17:9,

24; 18:2, 10; 21:19; 26:12; 27:1, 10; 41:13; 50:17; 51:12, 15; 128:21; 129:1; 137:4; 152:13, 15, 18 drained [1] - 41:7 drains [2] - 16:24; 17:2 dramatic [2] - 79:24; 96:11 drawdown [1] - 41:8 drawings [3] - 36:14; 143:9; 147:22 drawn [1] - 93:14 drawn-out [1] - 93:14 drinking [2] - 131:1 drive [1] - 135:2 driven [5] - 10:1, 6; 15:9; 21:7; 96:12 driver [1] - 137:11 drivers [2] - 45:21; 53:1 driving [8] - 11:11; 44:18, 24; 45:9; 46:14, 18 dropping [1] - 26:4 drove [1] - 137:15 drug [3] - 37:22, 24; 38:2 dual [1] - 99:11 due [4] - 54:1; 76:3; 94:15 duly [4] - 6:12; 55:22; 87:8; 104:18 durable [1] - 27:23 duration [1] - 18:23 during [17] - 13:10; 14:21; 18:3, 12; 33:21; 66:23; 71:20; 72:24; 73:1; 83:11; 84:15; 89:17; 97:10; 109:9, 20; 142:7; 151:18 dust [1] - 153:20 dwelled [1] - 121:6	18; 42:18; 46:2; 48:6, 8, 14, 21; 51:10, 12; 61:5; 71:17; 72:9, 14; 73:6, 10; 87:17; 88:21, 23; 89:2, 6, 17; 90:16, 21; 94:18; 98:22; 108:4, 15; 109:19; 117:4; 125:17; 163:11 EARTHRISE [1] - 1:3 Earthrise's [2] - 14:7; 94:15 easily [1] - 119:24 easily-reversible [1] - 119:24 east [2] - 9:23; 65:1 easy [1] - 163:13 EAV [4] - 63:21, 23; 70:3, 6 EcoCAT [1] - 144:16 Economic [3] - 56:12; 58:23; 71:16 economic [16] - 57:5; 72:23; 73:15; 74:3, 6, 24; 75:5, 12, 15; 76:3, 5, 15-16; 77:13, 22; 119:21 economical [1] - 51:13 economically [1] - 76:1 economics [4] - 56:9, 19, 23; 58:2 economy [3] - 71:11; 72:12 Ed [1] - 138:6 edge [1] - 23:22 edges [1] - 23:21 education [2] - 8:2; 56:17 educational [1] - 6:23 effect [2] - 66:2; 77:13 effectuate [1] - 155:10 efficiency [1] - 9:7 either [15] - 17:22; 31:8; 37:14; 41:21; 51:12; 67:22; 69:13; 84:17; 93:10; 102:9; 108:19; 113:11; 116:11; 142:6 elaborate [3] - 15:24; 16:4; 17:19 electric [2] - 57:1; 119:22 electrical [2] - 11:20; 22:19 electricity [2] - 56:22; 64:7 electrons [2] - 97:4,	23 elevator [1] - 66:15 Eleven [1] - 7:15 embedment [1] - 46:16 emergency [2] - 153:9 emissions [1] - 100:22 emotional [1] - 135:9 empirical [2] - 107:1, 5 employed [2] - 6:18; 67:5 employee [1] - 6:19 employees [7] - 37:14, 24; 53:10; 66:12, 14 employment [3] - 66:5; 71:11; 87:16 Emre [3] - 1:12; 33:24; 138:1 enclosed [1] - 23:16 encompassed [1] - 35:19 encountered [1] - 18:14 encourage [1] - 92:4 end [13] - 14:15, 19; 16:18; 26:19; 35:24; 101:10; 106:3; 118:23; 125:18; 128:23; 143:4; 160:8 End [1] - 164:24 endangered [2] - 18:13, 22 endangering [1] - 132:22 ended [2] - 19:3; 137:24 ends [1] - 13:23 energy [14] - 57:6, 19, 21; 74:8; 93:12; 94:21, 23; 95:8; 96:22; 135:24; 143:13; 157:17 ENERGY [3] - 1:2 Energy [5] - 4:10; 56:21; 87:18; 100:21 engaged [1] - 57:1 engineer [6] - 43:11; 114:15; 143:21; 147:20 engineer's [3] - 114:12, 15; 145:19 engineering [9] - 6:21, 24; 7:7, 18; 8:11, 18; 33:23; 46:7; 88:4	enjoy [3] - 61:15; 133:4; 163:21 enjoyed [1] - 98:5 enjoyment [1] - 133:2 enough's [1] - 122:12 ensure [10] - 13:13; 15:1; 16:11, 20; 18:9; 23:21; 25:23; 45:13; 98:12; 99:14 enter [3] - 16:5; 34:21; 116:7 entered [1] - 34:18 entertain [1] - 164:10 entire [2] - 78:8; 79:5 entirely [2] - 141:13; 142:4 entirety [3] - 36:15, 22; 78:8 entitled [2] - 112:17; 126:1 entitlements [1] - 91:8 entity [2] - 152:2; 157:13 environment [1] - 120:4 environmental [3] - 18:18; 134:18; 135:1 environmentally [1] - 119:23 environmentally-friendly [1] - 119:23 equipment [4] - 66:19; 72:15, 19; 153:12 equity [2] - 89:4, 7 equivalent [1] - 73:4 equivalents [1] - 66:22 ERM [2] - 108:3; 109:17 error [1] - 52:10 essentially [10] - 12:7; 13:1; 22:20; 26:21; 89:22; 90:1; 98:10; 120:5; 127:1; 141:17 establish [2] - 86:18; 90:4 established [5] - 5:16; 12:1; 26:22; 30:16; 34:15 establishment [1] - 133:6 estate [3] - 61:13; 106:19; 127:17 estimate [5] - 74:7; 85:17; 114:9, 17; 145:22 estimated [1] - 120:22	estimates [10] - 71:17; 72:9; 73:3, 6; 85:10; 107:5; 114:11, 13; 145:7, 17 estimation [1] - 72:10 estimations [1] - 77:21 etc [5] - 88:14; 137:4; 142:7; 143:7 evaluate [2] - 92:15; 125:24 evaluates [1] - 127:15 evaluation [1] - 150:15 evaporating [1] - 30:19 evasive [1] - 45:13 evening [18] - 4:3; 5:1; 6:4, 8-9; 37:19; 38:22; 55:12, 18-19; 87:4; 123:17; 135:3; 161:21 event [6] - 13:2; 18:15; 22:23; 43:22; 91:4 events [3] - 13:1, 7; 43:20 eventually [1] - 94:2 evidence [25] - 81:9, 21; 82:7, 24; 111:5, 8; 118:21; 119:1; 123:24; 124:6; 125:15, 19; 126:2, 6, 8, 12; 128:14; 129:17; 130:17; 132:13; 134:1; 139:23; 148:20 exactly [3] - 107:13; 121:3, 8 Examination [1] - 2:8 examination [5] - 32:23; 50:10; 84:7; 102:17; 112:10 EXAMINATION [31] - 6:14; 21:2; 24:21; 25:11; 28:8, 22; 33:7; 39:3; 42:9; 49:16; 50:15; 52:1, 18; 53:8, 18; 55:24; 60:6, 17; 63:11; 65:24; 68:2; 71:1; 87:10; 88:19; 92:22; 98:20; 100:4; 101:3; 111:3, 21; 113:4 examined [5] - 6:13; 55:23; 87:9; 104:19; 128:10 example [19] - 4:5; 29:17; 42:14, 24; 44:13; 52:23; 72:3;
E				
eagle [2] - 111:6; 138:17 eagles [5] - 107:20-22; 110:2; 138:15 early [1] - 48:12 earned [1] - 56:9 Earthrise [43] - 4:10; 6:19; 7:4, 8; 8:19; 16:6, 11; 27:9; 29:23; 33:20; 40:16,	18; 42:18; 46:2; 48:6, 8, 14, 21; 51:10, 12; 61:5; 71:17; 72:9, 14; 73:6, 10; 87:17; 88:21, 23; 89:2, 6, 17; 90:16, 21; 94:18; 98:22; 108:4, 15; 109:19; 117:4; 125:17; 163:11 EARTHRISE [1] - 1:3 Earthrise's [2] - 14:7; 94:15 easily [1] - 119:24 easily-reversible [1] - 119:24 east [2] - 9:23; 65:1 easy [1] - 163:13 EAV [4] - 63:21, 23; 70:3, 6 EcoCAT [1] - 144:16 Economic [3] - 56:12; 58:23; 71:16 economic [16] - 57:5; 72:23; 73:15; 74:3, 6, 24; 75:5, 12, 15; 76:3, 5, 15-16; 77:13, 22; 119:21 economical [1] - 51:13 economically [1] - 76:1 economics [4] - 56:9, 19, 23; 58:2 economy [3] - 71:11; 72:12 Ed [1] - 138:6 edge [1] - 23:22 edges [1] - 23:21 education [2] - 8:2; 56:17 educational [1] - 6:23 effect [2] - 66:2; 77:13 effectuate [1] - 155:10 efficiency [1] - 9:7 either [15] - 17:22; 31:8; 37:14; 41:21; 51:12; 67:22; 69:13; 84:17; 93:10; 102:9; 108:19; 113:11; 116:11; 142:6 elaborate [3] - 15:24; 16:4; 17:19 electric [2] - 57:1; 119:22 electrical [2] - 11:20; 22:19 electricity [2] - 56:22; 64:7 electrons [2] - 97:4,	23 elevator [1] - 66:15 Eleven [1] - 7:15 embedment [1] - 46:16 emergency [2] - 153:9 emissions [1] - 100:22 emotional [1] - 135:9 empirical [2] - 107:1, 5 employed [2] - 6:18; 67:5 employee [1] - 6:19 employees [7] - 37:14, 24; 53:10; 66:12, 14 employment [3] - 66:5; 71:11; 87:16 Emre [3] - 1:12; 33:24; 138:1 enclosed [1] - 23:16 encompassed [1] - 35:19 encountered [1] - 18:14 encourage [1] - 92:4 end [13] - 14:15, 19; 16:18; 26:19; 35:24; 101:10; 106:3; 118:23; 125:18; 128:23; 143:4; 160:8 End [1] - 164:24 endangered [2] - 18:13, 22 endangering [1] - 132:22 ended [2] - 19:3; 137:24 ends [1] - 13:23 energy [14] - 57:6, 19, 21; 74:8; 93:12; 94:21, 23; 95:8; 96:22; 135:24; 143:13; 157:17 ENERGY [3] - 1:2 Energy [5] - 4:10; 56:21; 87:18; 100:21 engaged [1] - 57:1 engineer [6] - 43:11; 114:15; 143:21; 147:20 engineer's [3] - 114:12, 15; 145:19 engineering [9] - 6:21, 24; 7:7, 18; 8:11, 18; 33:23; 46:7; 88:4	enjoy [3] - 61:15; 133:4; 163:21 enjoyed [1] - 98:5 enjoyment [1] - 133:2 enough's [1] - 122:12 ensure [10] - 13:13; 15:1; 16:11, 20; 18:9; 23:21; 25:23; 45:13; 98:12; 99:14 enter [3] - 16:5; 34:21; 116:7 entered [1] - 34:18 entertain [1] - 164:10 entire [2] - 78:8; 79:5 entirely [2] - 141:13; 142:4 entirety [3] - 36:15, 22; 78:8 entitled [2] - 112:17; 126:1 entitlements [1] - 91:8 entity [2] - 152:2; 157:13 environment [1] - 120:4 environmental [3] - 18:18; 134:18; 135:1 environmentally [1] - 119:23 environmentally-friendly [1] - 119:23 equipment [4] - 66:19; 72:15, 19; 153:12 equity [2] - 89:4, 7 equivalent [1] - 73:4 equivalents [1] - 66:22 ERM [2] - 108:3; 109:17 error [1] - 52:10 essentially [10] - 12:7; 13:1; 22:20; 26:21; 89:22; 90:1; 98:10; 120:5; 127:1; 141:17 establish [2] - 86:18; 90:4 established [5] - 5:16; 12:1; 26:22; 30:16; 34:15 establishment [1] - 133:6 estate [3] - 61:13; 106:19; 127:17 estimate [5] - 74:7; 85:17; 114:9, 17; 145:22 estimated [1] - 120:22	estimates [10] - 71:17; 72:9; 73:3, 6; 85:10; 107:5; 114:11, 13; 145:7, 17 estimation [1] - 72:10 estimations [1] - 77:21 etc [5] - 88:14; 137:4; 142:7; 143:7 evaluate [2] - 92:15; 125:24 evaluates [1] - 127:15 evaluation [1] - 150:15 evaporating [1] - 30:19 evasive [1] - 45:13 evening [18] - 4:3; 5:1; 6:4, 8-9; 37:19; 38:22; 55:12, 18-19; 87:4; 123:17; 135:3; 161:21 event [6] - 13:2; 18:15; 22:23; 43:22; 91:4 events [3] - 13:1, 7; 43:20 eventually [1] - 94:2 evidence [25] - 81:9, 21; 82:7, 24; 111:5, 8; 118:21; 119:1; 123:24; 124:6; 125:15, 19; 126:2, 6, 8, 12; 128:14; 129:17; 130:17; 132:13; 134:1; 139:23; 148:20 exactly [3] - 107:13; 121:3, 8 Examination [1] - 2:8 examination [5] - 32:23; 50:10; 84:7; 102:17; 112:10 EXAMINATION [31] - 6:14; 21:2; 24:21; 25:11; 28:8, 22; 33:7; 39:3; 42:9; 49:16; 50:15; 52:1, 18; 53:8, 18; 55:24; 60:6, 17; 63:11; 65:24; 68:2; 71:1; 87:10; 88:19; 92:22; 98:20; 100:4; 101:3; 111:3, 21; 113:4 examined [5] - 6:13; 55:23; 87:9; 104:19; 128:10 example [19] - 4:5; 29:17; 42:14, 24; 44:13; 52:23; 72:3;

77:1; 78:5; 79:22; 89:6; 90:23; 127:2; 141:20; 149:24; 150:7; 151:9; 157:9 except [1] - 23:1 excess [1] - 62:14 excited [2] - 135:23; 136:2 excuse [5] - 45:10; 61:14; 71:3; 148:18, 20 executive [2] - 56:23; 93:7 Executive [2] - 1:18; 151:20 Exhibit [11] - 3:3; 81:16, 21, 24; 82:4, 10, 15, 24; 143:10 exhibit [2] - 81:12; 82:15 exhibits [3] - 83:7; 141:20; 144:6 exist [3] - 132:17; 152:10, 24 existing [8] - 12:13; 48:13; 51:4, 15; 90:18; 98:4; 127:5, 15 exists [1] - 154:3 expect [2] - 26:23; 52:12 expected [1] - 106:2 expecting [1] - 24:11 expenditures [1] - 71:18 expensive [2] - 96:2; 132:4 experience [7] - 7:2; 8:2; 64:24; 73:7; 75:2; 121:13; 157:16 expert [8] - 7:18, 23; 8:3; 58:2, 9, 13, 20; 86:18 expertise [1] - 156:21 experts [1] - 58:11 expiration [2] - 155:4 expire [1] - 155:15 expires [1] - 155:8 explain [2] - 46:8; 83:20 explained [1] - 137:18 explicitly [1] - 14:4 exposed [1] - 14:21 extend [4] - 154:21; 155:6, 16, 21 extensive [2] - 94:7; 143:9 extent [7] - 17:2, 10; 61:11, 16; 77:12;	81:8; 147:21 extreme [1] - 9:16 eye [3] - 109:5, 13 eyes [1] - 132:24 F f [1] - 148:12 F-i-s-c-h-e-r [1] - 87:15 faces [1] - 31:5 Facilitator [1] - 1:6 facility [3] - 12:12; 143:13; 147:9 FACILITY [1] - 1:2 Facility [1] - 4:10 fact [14] - 44:23; 76:5; 86:17; 139:1, 22; 140:19; 141:5, 11, 15-16, 22-23; 149:2; 160:8 Fact [2] - 140:14; 141:8 factor [10] - 35:20; 43:17; 44:22; 64:9, 13-14; 126:23; 128:15, 20; 148:10 factored [2] - 16:17; 75:23 factoring [1] - 20:6 factors [13] - 40:19; 96:13; 125:23; 126:15; 132:19; 133:10; 148:4, 6-7, 10, 14, 17 Factors [2] - 146:6; 148:1 factory [1] - 74:8 factual [1] - 139:23 fair [11] - 42:20; 43:5, 14; 54:21; 77:22; 78:2, 9, 24; 79:8, 18, 24 fairly [2] - 75:2; 163:23 fall [1] - 61:18 falling [1] - 104:24 familiar [4] - 16:23; 25:1, 21; 87:19 family [1] - 120:23 family's [2] - 121:9, 13 fancy [1] - 86:6 far [7] - 27:2; 30:1; 34:23; 41:5; 45:23; 113:6; 138:15 farm [16] - 14:16; 65:1; 66:15; 100:13; 120:23; 121:13; 122:4, 19; 131:11, 24; 138:6-8; 142:3;	149:22 farmer [8] - 121:3; 122:5, 9, 12, 14; 135:4; 136:12, 18 farmers [5] - 21:13; 122:6; 132:2; 135:4, 13 farming [2] - 66:23; 77:5 farms [2] - 111:8; 150:12 fashion [3] - 142:9, 12; 149:16 fast [2] - 15:6; 20:9 favor [20] - 83:18; 94:23; 103:7, 16; 112:16, 19; 119:11; 121:15; 130:1, 7; 133:12, 18-19; 145:10; 149:6; 159:24; 161:5; 164:16 favorable [1] - 94:23 feasible [2] - 43:14; 46:5 feature [1] - 43:20 features [2] - 43:11; 152:13 federal [2] - 95:1; 129:13 fee [1] - 109:23 feed [3] - 75:19; 96:23; 132:3 feedback [3] - 42:7; 85:12; 129:6 feeding [4] - 17:5; 48:11; 49:3, 11 feelings [2] - 122:2; 163:9 feet [13] - 10:20; 14:6; 21:6; 35:5; 40:20; 45:8, 16, 18, 23; 46:16; 49:21; 151:11 felt [1] - 101:19 fence [8] - 15:21; 19:10, 17-18; 23:22; 47:2; 50:3 fenced [2] - 47:2, 4 fenced-in [2] - 47:2, 4 fencing [2] - 19:5; 146:24 fertilizer [11] - 77:1, 6, 10; 78:6, 18; 79:22; 80:3, 6 fertilizers [1] - 120:8 few [4] - 15:6; 36:5; 70:24; 113:1 FICHTER [5] - 133:17, 23; 134:4, 9, 12	Fichter [2] - 134:5 FICHTER- WANDLING [5] - 133:17, 23; 134:4, 9, 12 Fichter-Wandling [2] - 134:5 fiduciary [1] - 99:8 field [7] - 16:20; 18:8, 15; 120:10; 121:5; 134:23; 138:17 Fifth [1] - 165:5 figure [2] - 54:13; 64:8 figured [2] - 36:1; 64:14 final [19] - 11:24; 16:19; 26:22; 36:14; 50:13; 53:3; 59:12; 80:21; 82:12; 102:16, 20; 106:24; 107:1; 115:10; 129:5; 133:16; 140:6; 159:7 finalized [1] - 152:15 finally [1] - 13:21 finances [1] - 88:14 financial [9] - 29:15; 30:4; 85:11; 86:7; 87:20, 23; 88:11; 143:19; 157:16 financing [5] - 14:1; 90:3; 101:11; 154:12; 157:9 findings [14] - 139:1, 22; 140:19; 141:5, 11, 15-16, 22-23; 148:20; 149:2, 15; 160:7 Findings [1] - 140:14 fine [5] - 42:5; 93:18; 104:12; 153:23; 154:2 finer [1] - 154:1 fingers [1] - 83:13 finish [3] - 35:14; 139:5, 16 finished [1] - 130:13 finishing [1] - 5:3 fire [1] - 153:8 fired [4] - 94:16; 95:24; 97:9; 100:15 first [25] - 6:12; 7:20; 9:1; 14:16; 15:4, 7; 20:21; 25:13; 31:23; 34:7; 48:9, 21; 52:5; 55:22; 71:4; 73:9; 87:8; 88:17; 104:18; 111:1; 121:1; 124:10; 126:15; 132:21; 133:22	FISCHER [3] - 2:16; 86:24; 87:6 Fischer [10] - 86:14; 87:4, 14, 16; 88:16; 92:2, 10; 98:22; 102:22 fish [1] - 144:18 Fish [1] - 144:19 five [15] - 14:6; 31:5; 40:11, 20; 48:12; 62:16; 84:2, 19; 86:19, 21; 97:7; 104:10; 124:9, 17 five-foot [2] - 40:11 five-minute [1] - 104:10 fix [2] - 21:21; 151:21 flew [1] - 122:17 floor [1] - 140:9 flow [2] - 89:13; 129:1 flowing [1] - 16:16 fly [2] - 137:14; 138:16 focus [4] - 48:20; 125:5; 129:15, 20 focused [1] - 134:17 folks [20] - 5:1; 29:13; 31:8; 41:20; 58:8; 70:19; 84:7; 86:5; 103:7; 119:11; 121:17; 123:18, 21; 133:11; 139:15; 162:23; 163:6; 164:7 follow [3] - 15:6; 71:3 follow-up [2] - 15:6; 71:3 following [5] - 11:4; 27:2; 63:19; 83:14; 95:6 follows [4] - 6:13; 55:23; 87:9; 104:19 food [1] - 132:4 foot [2] - 40:11 footnote [1] - 69:2 Footnote [1] - 69:3 footprint [1] - 65:8 FOR [1] - 1:1 for.. [1] - 139:6 forced [1] - 100:20 Ford [3] - 28:15; 48:10, 22 foregoing [1] - 165:6 foremost [1] - 58:11 foresee [1] - 94:13 forgot [1] - 42:11 form [5] - 85:10; 94:5; 96:17; 115:1; 116:10 formats [1] - 89:21 forth [3] - 72:7; 77:11;
---	--	--	---	---

165:9 forward [9] - 64:13; 89:15; 91:3; 92:15; 95:13; 98:9, 12; 137:20; 138:14 foundations [6] - 9:24; 10:5, 19; 11:10; 23:7 four [9] - 10:18; 20:15; 46:17; 64:16; 67:10; 69:4; 116:17; 151:11 four-point [1] - 69:4 fourth [1] - 49:10 frame [2] - 25:16; 35:24 framed [1] - 52:6 frames [1] - 9:14 framework [1] - 98:5 Frank [1] - 134:9 freaked [1] - 136:22 free [3] - 95:23; 135:10 FreezeLand [1] - 4:20 friction [2] - 10:2; 46:12 friend [2] - 29:18 Friendly [1] - 120:21 friendly [7] - 46:23; 47:11, 14; 119:23; 120:1; 151:1 friends [1] - 103:12 front [4] - 9:5; 123:6; 125:5; 134:13 fruition [1] - 89:3 fuel [2] - 95:22; 98:6 full [10] - 35:10; 36:4; 63:23; 66:22; 73:3; 86:7; 122:7; 155:23; 162:9 full-time [2] - 66:22; 73:3 fully [1] - 67:5 functioning [1] - 12:11 funding [1] - 25:18 funny [1] - 24:3 future [1] - 132:2 FYI [2] - 138:4, 18	95:24; 97:9; 100:15 gate [2] - 15:22; 85:17 geese [1] - 110:8 general [17] - 7:7; 10:6; 14:7; 16:9; 18:19; 21:6; 38:1, 6; 109:8, 13; 126:16, 20; 132:23; 153:20 generally [11] - 23:6; 46:10, 15, 17; 71:13; 95:3; 142:20, 23; 143:17; 158:10; 159:11 generate [2] - 61:24; 97:10 generated [1] - 10:14 generation [2] - 93:10; 95:16 gentleman [2] - 7:23; 108:3 gentlemen [3] - 59:11; 60:15; 130:16 geotechnical [1] - 15:16 get-go [1] - 86:7 Gibson [7] - 49:4; 51:16; 53:10; 91:10, 12; 101:15 girls [1] - 136:24 Given [1] - 52:12 given [3] - 44:23; 46:3, 21 gizmo [1] - 39:7 GLACIER [1] - 1:2 Glacier [8] - 4:9; 8:11, 18; 36:4; 89:23; 119:19; 134:15; 162:15 glad [2] - 133:10; 136:5 glare [1] - 109:16 glass [2] - 9:14; 108:24 global [2] - 134:23; 135:1 goals [1] - 94:22 gonna [76] - 4:22; 8:19; 9:1; 10:18, 24; 18:3, 7; 29:3; 40:24; 45:17; 46:20; 52:22; 53:5; 54:10; 58:18; 60:19; 61:1, 23; 65:7; 69:9; 72:17, 22; 85:2; 91:24; 95:12; 100:16; 105:3, 14, 21, 24; 108:4; 109:17; 110:20; 113:17; 114:19; 121:8; 133:4; 135:7;	136:13, 19, 21; 137:21; 138:16; 139:9, 16; 140:15; 141:4, 9, 13; 142:9, 11, 15, 19, 22; 146:3, 5, 7; 150:11, 17, 19; 151:2, 10, 23; 153:14; 154:4; 156:18; 157:1, 7; 160:11 goose [1] - 111:9 gosh [1] - 113:10 gotcha [1] - 86:3 govern [2] - 157:11 governing [1] - 59:18 government [9] - 31:4; 54:1; 66:11; 67:7, 20; 74:13; 95:1; 102:7; 112:8 grade [4] - 16:21; 26:22, 24; 137:24 grading [4] - 11:3, 5; 153:19 graduate [1] - 56:22 grain [2] - 66:14; 122:5 grandchildren [1] - 131:20 grants [2] - 94:24; 99:4 grass [1] - 121:9 grasses [2] - 20:8; 47:17 gravel [6] - 23:7; 27:18; 29:1, 3, 6 great [7] - 13:6, 24; 85:8; 93:15; 125:3; 131:20 great-grandchildren [1] - 131:20 greater [1] - 58:12 greatest [1] - 72:23 grid [8] - 48:11; 94:18; 96:1, 9, 21, 23; 97:4, 23 ground [29] - 9:7, 24; 10:7; 11:12, 17; 14:6, 9; 15:10; 21:5, 15; 30:15; 40:18, 24; 41:2; 46:13; 52:20; 120:6; 122:4, 7, 9, 17; 123:10; 131:11, 24; 136:19; 138:6 grounds [1] - 122:19 group [1] - 54:4 groups [2] - 5:15; 105:8 grow [2] - 20:9; 21:14 growing [2] - 15:2;	47:17 growth [2] - 20:9; 136:1 guarantee [2] - 26:3; 35:2 guess [5] - 38:15; 47:7; 59:9; 65:7; 95:11 guy [2] - 34:2; 65:8 guys [8] - 4:4; 24:3; 29:3; 52:22; 101:5; 102:1; 137:6, 15	26:11; 50:1; 61:12; 103:18; 115:23; 123:14; 132:19; 141:19; 142:7; 146:3; 148:4, 7, 10, 13, 17, 23; 155:19; 162:22; 163:5, 8; 164:24 Hearing [3] - 1:6; 146:6; 148:1 hearings [5] - 7:9; 57:21; 58:9; 105:12; 163:19 heavily [2] - 14:18; 54:3 heavily-trafficked [1] - 14:18 heavy [1] - 122:21 height [1] - 151:11 help [1] - 119:21 helping [1] - 29:18 herbicides [1] - 120:8 hereby [1] - 165:5 hereinabove [1] - 165:9 high [7] - 13:2, 14; 20:10; 43:20; 96:3, 6; 150:11 high-level [1] - 150:11 higher [2] - 121:5; 137:24 highest [1] - 127:21 highly [1] - 105:19 history [1] - 56:18 hit [1] - 132:20 hitting [1] - 25:24 hmm [1] - 52:15 hold [2] - 19:1; 91:24 holds [1] - 9:22 home [3] - 49:21; 50:1; 97:14 homes [3] - 106:17, 20; 107:3 hope [5] - 46:23; 107:15; 108:16; 120:11; 133:14 Horn [8] - 1:11; 6:2, 8, 17; 8:1, 9; 15:6; 18:12 horn [12] - 20:20; 31:10; 33:5, 9; 42:12; 49:18; 55:7; 126:16; 127:3; 128:23 HORN [3] - 2:3; 6:5, 10 Horn's [1] - 3:4 horn's [2] - 82:12, 24 hospital [1] - 74:7 hot [1] - 30:10
H				
H-o-r-n [1] - 6:17 hail [4] - 9:17; 13:1; 131:8 half [5] - 10:22; 107:4, 9; 123:7 half-a-mile [1] - 123:7 half-mile [1] - 107:4 hand [4] - 30:12, 22; 62:8; 136:5 handiwork [1] - 59:22 handled [1] - 33:23 handout [1] - 52:3 Hands [1] - 117:21 hands [1] - 103:7 hang [1] - 62:5 happenstance [1] - 51:11 happy [1] - 85:5 hard [2] - 29:6; 66:6 hardly [1] - 105:20 harmed [1] - 19:20 harvest [1] - 66:24 hazardous [5] - 9:12; 22:15, 17; 108:22; 123:3 head [6] - 5:10; 24:10; 35:11; 44:22; 99:1; 118:16 health [5] - 87:23; 102:2; 109:11; 126:15; 132:22 healthy [3] - 89:13; 101:9, 16 hear [9] - 22:14; 23:14, 23; 49:21; 103:5; 136:6; 160:22; 164:13 heard [14] - 5:4; 34:3; 50:22; 58:8; 93:11; 97:6; 125:16; 126:16, 18; 128:17; 134:18; 141:19; 148:16; 163:14 HEARING [1] - 1:1 hearing [24] - 4:9; 5:3;				

G

game [2] - 19:16, 19
gap [4] - 19:10, 14, 18
gas [13] - 12:14;
48:13; 49:3; 56:23;
57:2, 7; 93:13;
94:16; 95:24; 97:9,
17, 22; 100:15
gas-fired [4] - 94:16;

hotter ^[1] - 30:13 hour ^[3] - 43:9, 16; 137:14 hours ^[2] - 45:19 House ^[1] - 94:1 house ^[4] - 123:8; 131:5; 136:20 housekeep ^[1] - 81:6 housekeeping ^[1] - 83:3 housing ^[4] - 107:3, 6-7, 9 HR ^[1] - 37:16 hub ^[2] - 49:11; 54:24 human ^[2] - 131:14; 137:16 hundred ^[10] - 57:14; 67:10; 85:9, 16; 88:23; 101:11-13; 137:14; 150:1 hydrogen ^[1] - 57:8 hydrology ^[5] - 16:14, 19; 26:16, 18; 27:7 hydrovac ^[2] - 21:23 hypothetically ^[1] - 79:4	60:10; 71:16; 90:24; 127:11; 147:18 impact ^[23] - 13:4, 7, 11; 73:15; 74:3; 78:1; 79:7, 10, 16-17, 24; 80:2; 89:19; 106:2, 6; 109:1; 113:13; 126:24; 127:2, 23; 128:3, 18; 152:18 impacted ^[3] - 22:7; 79:23; 148:15 impacting ^[2] - 18:2; 51:4 impacts ^[17] - 27:8; 57:6; 72:23; 75:12, 15, 17, 24; 76:3, 5, 20; 77:13, 22; 78:4; 79:3; 94:13; 95:14; 126:22 impede ^[1] - 133:6 impediment ^[1] - 97:1 impeding ^[1] - 128:15 IMPLAN ^[18] - 66:9; 67:14; 71:5, 10, 13, 15; 72:1, 8; 73:21, 24; 74:4, 18; 75:7, 11; 77:4, 14, 20 IMPLAN's ^[1] - 75:14 implements ^[1] - 66:15 implications ^[1] - 57:6 important ^[2] - 54:15; 119:20 impose ^[1] - 153:24 imposed ^[1] - 140:4 impression ^[1] - 115:19 improvement ^[1] - 133:7 inactive ^[1] - 152:21 incentive ^[1] - 98:5 incentives ^[1] - 95:7 incentivized ^[1] - 21:18 inch ^[1] - 19:18 inches ^[1] - 14:18 include ^[9] - 57:19; 66:14; 90:21; 114:5, 7; 117:16; 122:24; 151:1, 12 included ^[8] - 42:17; 47:10; 59:2; 66:16; 78:13; 120:2; 128:6; 144:1 includes ^[2] - 35:22; 61:22 including ^[10] - 31:4; 36:23; 57:13; 59:18; 67:20; 102:7; 112:8;	127:18; 128:11 income ^[1] - 90:6 incorrect ^[1] - 62:17 incorrectly ^[1] - 68:22 increase ^[10] - 43:13, 20, 22; 44:1; 69:22; 96:12; 128:9; 129:1; 152:19 increases ^[1] - 9:7 increasing ^[3] - 16:11, 21; 119:22 Index ^[1] - 64:9 indicate ^[1] - 113:12 indicated ^[2] - 44:4; 84:24 indicates ^[1] - 128:7 individual ^[3] - 14:23; 15:15; 16:5 industries ^[4] - 66:18; 74:17; 75:2; 77:6 industry ^[5] - 7:3; 43:16; 66:15; 71:18; 72:6 Industry ^[2] - 75:8 inert ^[3] - 9:10, 15; 22:21 infiltrate ^[1] - 41:15 inflation ^[2] - 64:10, 17 information ^[11] - 70:15; 71:6, 22; 73:10; 77:21; 110:14; 142:6; 144:12, 19, 21; 150:10 infrastructure ^[1] - 12:15 initial ^[4] - 8:20; 11:1, 21; 39:19 injurious ^[1] - 133:2 input ^[2] - 16:14; 72:1 inputs ^[5] - 71:7, 14; 75:9; 77:11; 79:22 inputting ^[1] - 72:8 insects ^[2] - 135:5, 7 inside ^[2] - 10:20; 23:14 inspections ^[2] - 12:16; 13:15 install ^[1] - 95:4 installation ^[3] - 11:20; 22:8; 106:18 Installation ^[1] - 142:18 installations ^[1] - 107:4 installed ^[2] - 11:10, 13 instance ^[8] - 73:11; 74:18; 75:14, 21;	77:24; 78:2; 150:13; 158:20 instead ^[2] - 46:12; 154:15 Institute ^[1] - 56:24 insulating ^[1] - 22:18 insulation ^[1] - 90:10 insurance ^[1] - 13:8 intact ^[1] - 21:13 integrated ^[1] - 12:22 intended ^[1] - 11:23 intends ^[2] - 40:16, 18 intention ^[1] - 72:14 interest ^[2] - 120:19; 157:10 interested ^[3] - 112:4, 13; 113:23 interests ^[1] - 157:8 interior ^[2] - 11:2; 23:20 interject ^[1] - 33:1 internet ^[1] - 131:13 interplay ^[1] - 63:21 interrelationships ^[2] - 74:16; 75:1 interrupt ^[1] - 33:18 interviews ^[1] - 127:17 intra ^[1] - 146:22 intra-project ^[1] - 146:22 introduction ^[1] - 124:6 inverter ^[5] - 23:3, 13-14; 49:22; 50:2 inverters ^[22] - 10:13, 18; 11:10, 18; 12:9; 14:11; 20:12; 22:14, 16, 22; 23:14; 25:2, 4-5; 50:5; 72:4-6, 16; 127:4 inverts ^[1] - 22:13 invest ^[1] - 101:18 investment ^[1] - 89:2 investments ^[2] - 98:12; 99:5 investor ^[1] - 88:21 investors ^[3] - 99:12; 101:17, 19 involved ^[5] - 9:13; 53:11; 60:8; 62:22; 91:5 involving ^[1] - 40:24 issuance ^[1] - 115:4 issue ^[4] - 25:3; 30:15; 50:17; 113:7 issues ^[5] - 27:10; 58:3; 87:20; 125:4; 149:23 item ^[2] - 69:21; 154:4	Item ^[2] - 132:21; 133:1 items ^[2] - 52:20; 152:6 itself ^[1] - 88:16
J				
Jeremy ^[1] - 4:19 job ^[6] - 13:6; 42:6; 54:8; 67:4; 79:7; 93:19 jobs ^[3] - 59:15; 73:4; 105:18 Jobs ^[1] - 100:22 John ^[1] - 1:14 join ^[1] - 4:11 JOSEPH ^[3] - 2:3; 6:10, 17 Joseph ^[3] - 1:11; 6:2, 17 Judicial ^[1] - 165:5 July ^[1] - 98:9 jump ^[1] - 151:23 jurisdiction ^[5] - 50:20; 61:12, 19; 78:23; 143:23 jurisdictional ^[1] - 78:24 jury ^[1] - 84:8				
K				
KAINS ^[191] - 4:1, 24; 5:11, 20, 22; 6:4, 7; 7:19, 22; 8:1; 20:18; 21:1; 24:16, 20; 25:9; 28:5, 19; 31:1, 13, 15, 19, 22; 32:3, 6, 9, 18, 22; 33:5, 18; 34:1; 38:17, 22, 24; 39:9; 41:18; 42:2, 5; 49:15, 17; 50:9, 12; 51:21, 24; 52:16; 53:3, 7, 15, 17; 55:3, 12, 15; 58:4, 7, 19; 59:7, 24; 60:3, 13; 61:6; 62:1, 3, 5, 11; 63:6, 8; 65:22; 67:16; 70:18, 23; 80:17, 21; 81:7, 11, 14, 20; 82:3, 9, 17, 21, 23; 83:8, 10; 84:23; 85:7, 18, 23; 86:3, 5, 11, 19, 22; 87:2; 88:9, 15; 92:7, 10, 17, 19; 98:16; 100:1; 101:1; 102:4, 11, 14, 16, 20, 24;				

103:4, 11, 14, 16; 104:3, 7, 9, 13; 106:10, 13; 110:22; 111:15, 20; 112:5, 10, 12, 24; 113:2; 115:7, 10, 16, 18, 22; 116:6, 15, 18, 20, 23; 117:2, 5, 7, 14, 19, 22; 118:1, 4, 7, 11, 15, 17, 24; 119:3, 17; 120:12, 14; 121:14, 20, 23; 123:2, 11, 13, 16; 124:16, 19; 130:5, 14, 16, 22; 132:6; 133:15, 19, 24; 134:7, 11; 135:17; 136:4, 9; 138:19; 139:9, 15, 18; 161:15, 18, 20, 23; 162:4, 6, 8, 21; 163:4; 164:3, 5, 21, 23 Kains [11] - 1:7; 2:8; 4:23; 5:24; 7:17; 20:17; 58:21; 109:6; 124:22; 130:4; 140:11 Kansas [1] - 65:2 Karen [1] - 118:8 keep [18] - 14:8; 27:21; 46:13; 130:16; 131:16; 132:23; 134:20; 135:24; 136:22; 145:7; 146:14; 147:9; 151:24; 152:16; 154:16; 157:7 keeping [1] - 93:23 keeps [1] - 10:3 Kelly [1] - 1:18 kept [1] - 104:24 KEYT [64] - 5:21; 7:21, 24; 42:4, 7, 10; 49:13; 70:24; 71:2; 80:15; 81:19; 83:6, 9; 85:19; 86:1, 8; 102:15; 113:1, 3, 5, 24; 115:9; 116:9; 117:1, 10; 118:23; 139:7; 140:11; 141:4; 142:14; 145:5; 146:1; 148:3, 23; 149:4, 6, 11, 18; 154:7, 19, 22; 155:1, 3; 156:1, 4, 7, 12, 23; 157:1, 4, 19, 22, 24; 158:5, 13, 19; 159:1, 5, 22,	24; 160:5; 161:4, 10, 12 Keyt [35] - 1:8; 2:7, 15, 21; 5:20; 7:19; 42:3, 6; 49:15, 18; 58:4; 70:23; 80:17; 81:17; 82:6, 21; 83:4, 10; 85:18; 102:14; 107:13; 112:24; 115:8; 116:8; 118:22; 124:24; 125:11; 138:24; 139:4, 19; 140:5, 10; 162:24; 163:2, 22 Keyt's [1] - 84:21 kicks [2] - 26:6; 157:13 kill [2] - 24:23; 25:4 kind [27] - 7:2; 18:8; 34:10; 35:17; 48:23; 53:22; 56:8; 57:13; 58:15; 64:17; 66:20; 67:4; 69:20; 89:23; 94:21; 98:4; 99:13; 108:8; 109:1; 110:10; 113:18; 136:20, 22; 138:1, 11; 141:12 kinds [3] - 9:11; 74:3; 99:4 know.. [1] - 158:23 knowledge [2] - 51:7; 72:3 known [1] - 163:9 Kyle [1] - 1:10	14:23; 16:3; 17:5, 11, 21; 27:22; 47:6; 90:22 lands [3] - 16:22; 135:13; 144:22 landscape [4] - 133:8; 150:16, 23; 151:13 landscaping [2] - 13:12; 146:12 large [2] - 65:1; 106:16 large-scale [1] - 106:16 largely [3] - 98:5; 148:13; 158:21 larger [4] - 12:23; 77:13; 89:24; 127:9 largest [1] - 97:1 last [26] - 5:4, 14; 19:9; 24:12; 31:5, 16; 42:11; 50:17; 74:10; 85:23; 97:24; 107:20; 108:3; 109:17; 110:8; 113:19; 118:5, 11; 125:3, 17; 128:6; 131:10; 134:7; 135:10; 153:20; 156:7 late [1] - 32:8 laughing [10] - 32:14; 101:7; 103:10, 13; 115:15; 136:8, 17; 156:11; 163:3; 164:2 laughs [3] - 53:7; 65:21; 88:6 law [3] - 152:18; 155:13, 17 laws [1] - 93:9 lawyer [1] - 107:14 lead [2] - 41:15; 122:24 leading [1] - 74:3 leaking [1] - 9:12 lease [5] - 24:8; 39:18, 22-23; 135:13 leased [2] - 47:6; 122:6 leases [3] - 14:15; 24:6; 71:22 least [9] - 10:20; 33:20; 39:23; 40:1; 61:13, 21; 132:3; 133:9; 151:11 leave [4] - 22:7; 27:23; 109:15; 155:15 left [3] - 40:12, 18; 124:1 legal [2] - 41:5; 98:23	legislation [3] - 64:11; 93:24; 94:6 lenders [1] - 90:6 length [3] - 11:16; 25:17, 23 lengthy [2] - 38:10; 127:12 less [4] - 36:7; 79:13; 86:20; 120:3 Letter [1] - 147:7 letter [1] - 117:17 letters [3] - 117:3, 6 level [4] - 11:8; 16:8; 127:21; 150:11 levels [2] - 129:13; 147:13 levy [6] - 70:3-5, 8, 11 liability [2] - 99:7, 10 License [2] - 1:22; 165:16 licensed [1] - 31:6 lieu [1] - 105:24 life [6] - 12:4; 44:9; 90:7; 101:20; 151:17 lifecycle [1] - 100:17 lifespan [6] - 13:23; 14:16; 21:17, 19; 25:24; 105:16 lifetime [1] - 109:20 light [2] - 9:6; 22:6 lighting [1] - 146:20 like.. [2] - 53:22; 68:15 likely [3] - 14:24; 41:15; 61:14 limit [1] - 84:3 limited [3] - 64:24; 99:7, 10 line [10] - 21:8, 21; 22:11; 29:11; 50:3; 52:5; 57:4; 78:24; 127:22 lines [3] - 52:6; 127:5; 146:23 liquids [1] - 9:12 list [5] - 35:13; 66:4; 68:12; 118:21; 125:14 listed [6] - 142:1; 143:7; 144:5; 148:12, 21; 153:24 listened [1] - 120:19 literature [1] - 107:2 live [7] - 57:24; 65:6; 113:6, 8-9; 120:5; 137:13 lives [1] - 138:12 living [2] - 135:11; 137:12 LLC [2] - 1:2; 56:13	load [2] - 96:4; 126:17 loader [1] - 52:24 loads [1] - 46:21 local [14] - 12:12; 31:3; 51:6, 8; 67:19; 71:21; 72:12, 22, 24; 91:8; 102:6; 112:7; 129:13 locate [2] - 17:22; 18:7 located [3] - 34:24; 49:22; 78:6 locations [2] - 51:3; 54:24 LOCKHART [8] - 42:1; 70:22; 102:13; 112:23; 116:5, 17, 19, 21 Lockhart [8] - 1:18; 41:24; 70:21; 102:12; 112:22; 116:3, 11, 16 long-winded [1] - 95:12 look [14] - 17:7, 24; 18:8; 22:5; 43:11; 57:7; 66:22; 69:11; 72:20; 76:20; 77:1, 9; 149:22; 158:14 looked [4] - 67:8; 69:7; 76:22; 79:3 looking [15] - 12:21, 24; 16:16; 21:11; 57:5; 68:4; 71:9; 76:2, 10; 79:16; 125:7; 136:24; 137:7; 145:2 looks [6] - 12:8; 65:10; 68:15; 127:14, 16 Loomis [13] - 55:9; 56:4; 58:2, 8, 23; 59:6, 21; 60:4; 61:10; 63:3; 80:22, 24; 126:19 LOOMIS [3] - 2:11; 55:13, 20 losses [3] - 75:19; 76:4 lost [3] - 106:20; 131:11, 13 Louis [1] - 88:4 Louisiana [1] - 112:1 love [2] - 13:8; 103:14 low [4] - 13:11; 20:9; 41:1; 138:16 low-growth [1] - 20:9 low-impact [1] - 13:11 LSU [4] - 106:5, 24; 112:1; 113:12
L				
L-o-o-m-i-s [1] - 56:4 labor [5] - 38:5; 72:20, 24; 73:5 lacking [1] - 110:11 ladies [3] - 59:11; 60:15; 130:16 lady [2] - 133:21; 135:18 Lake [3] - 122:16; 130:23; 134:21 land [14] - 7:1; 11:5; 16:2; 66:3, 6; 71:22; 91:8; 106:17; 121:3, 12; 122:8, 13; 132:1; 153:3 landowner [8] - 14:5, 8; 16:7; 17:9; 27:20; 40:17; 71:23; 153:2 landowner-specific [1] - 40:17 landowners [9] -				

LYDIA [2] - 165:4, 15 Lydia [1] - 1:22 Lydia's [1] - 83:12	Martinsville [7] - 68:12; 69:5-8, 12, 16 material [3] - 9:9; 11:24 materials [10] - 9:13, 15; 10:10; 22:15, 17; 54:23; 59:3; 73:5; 125:8; 129:16 matter [1] - 41:13 matters [1] - 5:17 Mattoon [25] - 28:21; 36:16; 59:19; 60:19; 61:9, 15, 18, 20; 62:4, 12-13, 20, 22; 69:4; 78:20; 105:14; 123:4; 131:1, 23; 134:21; 138:10 Mattoon's [1] - 61:19 McLean [4] - 28:15; 48:10, 23; 76:14 McNitt [10] - 117:24; 118:1, 3, 6; 119:13, 16, 19; 120:13 mean [23] - 40:23; 43:1; 46:13; 54:8, 15-16, 19; 58:12; 65:9; 92:12; 94:22; 95:21; 96:14; 98:2; 109:10-12; 135:4; 137:1; 138:11, 15; 145:5; 150:19 meaningful [1] - 71:19 means [3] - 9:5; 109:10; 127:20 meant [1] - 100:23 meat [1] - 141:22 mechanical [1] - 100:6 medical [1] - 56:6 meet [6] - 47:15; 99:22; 119:22; 147:2; 148:10; 162:4 meeting [4] - 4:7, 23; 119:5; 161:16 meetings [1] - 105:12 meets [1] - 129:18 megawatt [2] - 64:6, 12 megawatts [1] - 91:13 member [3] - 28:21; 83:17; 112:18 Members [1] - 1:13 members [47] - 20:22; 31:2, 8; 32:14; 50:13; 59:9; 60:4, 14; 63:9; 65:23; 67:17, 19, 21;	80:22; 84:8; 88:17; 92:20; 98:18; 100:2; 101:7; 102:5, 8, 21; 103:6, 10, 13; 105:5; 111:1, 16-17; 112:5, 7, 13; 115:11, 15; 124:23; 125:1; 136:8, 17; 139:20; 156:11; 162:18; 163:3; 164:2 MEMBERS [1] - 31:14 mention [3] - 36:11; 37:1; 128:3 mentioned [7] - 10:21; 26:14; 43:18; 56:17; 62:4; 125:9; 134:21 mentioning [1] - 21:12 messed [1] - 31:16 met [6] - 51:16; 124:12; 128:13; 134:16; 135:12; 142:7 metals [2] - 122:22 meteorological [1] - 12:20 method [2] - 45:12; 46:13 metrics [1] - 99:19 mic [1] - 39:9 mic's [1] - 39:2 Michael [2] - 1:16; 4:21 microphone [3] - 42:7; 85:12; 129:5 middle [3] - 123:4; 125:22; 130:24 Midwest [4] - 48:15; 57:2; 128:4, 10 might [20] - 34:21; 36:7; 66:19; 67:5; 73:4; 76:16; 77:1; 78:5; 83:13; 92:3; 94:20; 108:24; 109:2, 7; 134:19; 136:14; 155:13; 156:12 migrating [1] - 108:6 migration [2] - 35:17; 110:5 migratory [2] - 110:4; 111:12 Mike [2] - 1:13; 4:15 mile [6] - 43:15; 107:4; 123:7; 131:6; 137:14 miles [4] - 43:9; 106:20; 113:10, 14	millage [2] - 68:20, 24 million [8] - 62:15; 63:4; 101:11-13; 106:19; 131:15 mind [9] - 130:16; 145:7; 146:14; 147:9; 151:24; 152:17; 154:16; 157:8 mine [2] - 32:1; 83:13 minimize [2] - 11:5; 13:4 minimum [2] - 64:23; 151:8 Minnesota [1] - 74:1 minor [1] - 7:1 minute [5] - 31:20; 104:10; 119:14; 139:9 minutes [20] - 8:4; 32:22; 33:2; 38:24; 58:14, 18; 83:23; 84:2, 12, 19; 86:19, 21; 104:1, 15; 120:16; 121:21; 124:9, 17; 139:8 missed [5] - 31:24; 32:1, 3; 85:24 mistaken [1] - 62:11 mitigating [1] - 13:7 Mitigation [2] - 90:24; 147:19 mitigation [2] - 17:16; 153:20 mixed [1] - 122:2 mobilization [1] - 35:22 mode [2] - 12:19; 43:21 model [3] - 72:1; 75:20; 94:16 moderator [1] - 4:23 Modules [1] - 52:5 modules [2] - 9:3; 14:11 moment [1] - 136:20 momentarily [1] - 5:12 money [9] - 30:5; 60:19; 61:2; 71:21; 90:4; 101:6; 122:8, 11 monitor [1] - 109:17 monitored [1] - 12:6 monitoring [5] - 21:9; 26:11; 109:20; 120:24; 152:21 month [1] - 45:1 months [3] - 35:14; 36:8; 63:16	Moraine [8] - 4:9; 8:11, 19; 36:5; 89:23; 119:20; 134:15; 162:15 MORAINE [1] - 1:2 morals [1] - 132:22 mortgage [1] - 90:5 most [9] - 9:1; 14:23; 32:9; 41:15; 97:1; 105:2; 120:6; 154:9 mostly [3] - 65:9; 105:4 motion [16] - 149:1, 3, 11; 159:14, 17, 19; 160:6, 22-23; 161:1, 11-12; 164:9, 12 Motion [1] - 164:13 mounted [4] - 10:18; 11:14; 23:4 move [8] - 22:10; 39:9; 58:2; 138:13; 145:11; 146:3; 148:4; 162:13 moved [1] - 93:24 moving [3] - 45:22; 131:5; 137:19 mowing [2] - 47:16 MR [491] - 4:1, 3, 6-7, 14, 16-19, 24; 5:10, 19-22, 24; 6:4, 7-8, 15; 7:16, 19, 21-22, 24; 8:1, 7-8; 20:16, 18, 23-24; 21:1, 3; 24:13, 16, 19-20, 22; 25:8-10, 12; 28:3, 5, 9, 19-20, 23; 30:24; 31:1, 12-13, 15, 17, 19, 22-23; 32:1, 3, 5-7, 9, 15-16, 18, 21-22; 33:4-6, 8, 18; 34:1, 5; 37:9, 11; 38:14, 17, 22-24; 39:4, 9, 11; 41:17; 42:1, 4-5, 7, 10; 49:13, 15, 17; 50:9, 11-12, 16; 51:20, 23-24; 52:2, 15-17, 19; 53:2, 6-7, 9, 15, 17; 55:3, 9, 12, 15, 17; 56:1; 58:1, 4, 7, 17, 19, 21-22; 59:5, 7, 24; 60:3, 7, 12-13, 18; 61:6, 10; 62:1-5, 9, 11; 63:4, 6-8, 12; 65:20, 22; 66:1; 67:15; 68:1, 3; 70:14, 18, 22-24; 71:2; 80:15, 17, 20-21; 81:3, 7-8, 11,
M				
M-c-N-i-double [1] - 118:6 ma'am [4] - 118:7; 121:14; 133:22; 135:17 machine [2] - 165:7 macroeconomic [1] - 89:10 MADLEM [2] - 165:4, 15 Madlem [1] - 1:22 magic [1] - 71:15 MAI [1] - 127:20 MAI-designated [1] - 127:20 main [4] - 8:20; 9:13; 22:18; 151:24 maintain [2] - 21:18; 151:16 maintenance [6] - 12:3; 13:13; 20:10; 71:20; 90:14; 120:20 major [1] - 95:18 management [16] - 11:7; 16:9; 19:22; 20:7; 47:18, 21; 48:1; 87:22; 88:16; 146:16; 150:15, 23-24; 151:14; 152:6 Management [2] - 11:7; 146:13 manager [12] - 6:21; 8:11, 18; 33:10-12, 19, 21, 23-24; 34:2; 110:19 managing [1] - 7:7 manmade [1] - 41:14 manner [1] - 119:24 manufacturer [2] - 44:6; 54:22 manufacturing [2] - 25:23; 66:19 map [2] - 18:7; 41:1 maps [2] - 51:3; 144:10 marginal [1] - 95:22 Maria [2] - 134:4 mark [4] - 81:15; 82:3, 14; 83:7 marked [1] - 81:12 market [1] - 135:11 marking [1] - 141:20				

13-14, 19-20; 82:2, 9, 16-17, 21, 23; 83:6, 8-10; 84:23; 85:2, 7-8, 18-19, 23; 86:1, 3-5, 8, 11, 13, 16, 19-20, 22, 24; 87:2, 4, 11; 88:5, 7, 9, 12, 15, 20; 91:24; 92:7, 10, 16-19, 23; 98:14, 16, 21; 99:24; 100:1, 5, 24; 101:1, 4; 102:4, 11, 13-16, 19-20, 24; 103:2, 4, 11, 14-16; 104:2, 5, 7-9, 12-14, 21; 106:10, 13-14; 110:22; 111:4, 14-15, 20; 112:5, 10-12, 23-24; 113:1-3, 5, 24; 115:7, 9-10, 14, 16-19, 21-22; 116:5, 9, 15, 17-21, 23; 117:1-3, 5-7, 9-10, 14, 16, 19, 22, 24; 118:1, 3-4, 6-7, 11, 15, 17, 23-24; 119:2, 16-17, 19; 120:12-14; 121:14, 20, 22-23; 122:1; 123:2, 11-13, 15-16; 124:15, 18-19, 22; 130:5, 13-16, 20, 22-23; 132:6, 11; 133:15, 19, 24; 134:7, 11; 135:17; 136:4, 7, 9, 12, 15, 18; 138:19; 139:7, 9, 15, 18; 140:11; 141:3; 142:13; 145:1, 5, 24; 146:1; 148:3, 22-23; 149:3-6, 8-11, 17-18; 154:6, 18-20, 22-23; 155:1-3, 20; 156:1, 3-4, 6-7, 10, 12, 18, 23-24; 157:1, 4, 18-19, 21-24; 158:2, 5, 12-13, 18-19, 24; 159:1, 3, 5, 17-19, 22-24; 160:2-5, 22-23; 161:1, 3-5, 7-12, 15, 17-20, 22-23; 162:1-8, 20-21; 163:4; 164:3-5, 10, 12-13, 15-19, 21 MS [22] - 53:14, 16, 19; 55:2; 58:6; 82:8, 20, 22; 111:19, 22;	114:20; 118:8, 13; 120:17; 133:17, 23; 134:4, 9, 12; 135:20; 136:14; 139:8 multiple [1] - 17:5 multiplier [1] - 77:13 multipliers [1] - 75:7 Murray [1] - 118:9 must [2] - 99:4; 139:24 mutual [4] - 16:23; 17:2, 11	negative [13] - 75:12, 15-16, 24; 78:1, 4; 79:7; 106:2, 6; 113:13; 127:23; 133:18; 148:15 negotiate [3] - 145:16 negotiated [1] - 115:3 negotiations [2] - 60:24; 61:4 neighbor [3] - 13:11, 19; 29:23 neighborhood [1] - 93:3 neighboring [8] - 16:12, 22; 17:9, 13; 30:7; 126:24; 128:18; 129:1 neighbors [6] - 29:14; 30:4; 92:24; 93:1; 99:16; 122:3 Neoga [13] - 59:20; 65:9; 68:16, 18; 69:6, 13, 17; 83:22; 84:1; 100:12; 117:18 nesting [6] - 18:16, 23-24; 19:3; 108:6; 110:6 nests [1] - 138:17 net [3] - 76:4, 15 networks [1] - 12:23 neutral [11] - 31:9; 41:21; 67:22; 70:20; 83:18; 102:9; 112:16, 20; 116:2; 119:12; 123:21 never [1] - 64:21 new [9] - 13:5; 22:8; 31:5; 90:16; 97:2; 124:6; 152:7; 158:21 news [2] - 5:3; 124:20 next [26] - 5:23; 8:24; 9:19; 10:23; 12:5; 13:20; 15:2; 23:18; 29:14; 30:4; 38:8; 45:7; 48:12; 51:22; 55:8; 68:8; 86:12; 103:1; 105:21; 118:21; 128:15; 133:9; 161:15, 23; 162:12 next-door [1] - 30:4 night [16] - 5:1, 4, 14; 19:9; 31:6, 16; 45:20; 50:17; 107:20; 108:3; 109:17; 110:8; 113:19; 125:3, 17; 156:7	nine [4] - 21:6; 35:5; 46:16; 106:18 nobody's [1] - 138:4 noise [9] - 13:17; 45:12; 49:21; 50:2, 4; 127:4; 147:13, 15 noisy [1] - 45:11 non [3] - 54:3; 83:24; 146:11 non-Coles [1] - 83:24 non-usable [1] - 54:3 none [6] - 50:11; 72:16; 144:13; 146:3; 148:23; 162:16 nonparticipant [3] - 16:12; 17:7; 45:16 nonparticipants [1] - 29:24 nonparticipating [2] - 16:3; 146:12 nonprofit [1] - 99:9 nontoxic [1] - 9:11 normal [1] - 133:7 normalize [1] - 67:5 Normally [1] - 162:5 north [2] - 131:6 northern [1] - 113:9 nosing [1] - 163:15 notch [1] - 96:6 note [1] - 118:9 noted [2] - 109:16; 110:5 notes [4] - 32:11; 105:2; 165:9 nothing [6] - 37:5, 8; 62:19; 118:23; 121:10; 148:9 notwithstanding [1] - 49:20 November [1] - 74:15 nowhere [1] - 107:17 noxious [1] - 150:15 nuclear [1] - 95:9 number [21] - 42:23; 44:21; 66:7, 12, 16; 67:3; 69:8; 79:11; 80:1; 89:5; 96:13; 100:20; 109:22; 143:2; 144:3, 9-10; 146:20, 22; 147:7, 20 Number [7] - 62:13; 69:21; 144:3; 150:14; 152:24; 154:14; 160:9 NUMBER [1] - 3:2 numbers [9] - 60:1; 67:12; 69:10; 74:15, 19, 21, 23; 105:19;	143:6 numerous [2] - 58:9
O				
O&M [4] - 9:18; 13:10, 23; 21:10 object [1] - 70:13 objecting [1] - 115:14 objection [12] - 7:20, 22, 24; 32:24; 53:6; 81:17, 19; 82:6, 8-9, 18, 22 objections [2] - 58:5 objectives [1] - 99:11 obligation [3] - 84:16; 90:22; 99:8 obligations [3] - 90:20, 22; 91:1 obsolescence [1] - 100:21 obstacle [1] - 122:5 obtain [1] - 150:8 obtaining [1] - 147:6 obviously [4] - 44:22; 54:17; 105:11; 108:18 occasions [2] - 57:12; 58:10 occupation [1] - 67:1 occur [1] - 134:19 OF [1] - 165:3 Official [3] - 1:23; 165:4, 16 offset [2] - 95:5; 126:22 offsets [1] - 30:17 offsite [1] - 14:12 offtake [1] - 49:1 often [3] - 89:7; 93:16; 97:18 oftentimes [2] - 66:17; 163:2 oil [4] - 22:18, 20; 93:13 old [1] - 18:4 once [10] - 11:9, 13, 15, 20; 13:22; 19:2; 23:21; 40:3; 126:6; 129:22 one [64] - 7:10; 17:5; 24:19; 25:6; 37:13; 38:14; 40:9; 45:5-7, 22; 48:23; 49:4, 6, 12, 20; 51:24; 58:10; 65:7; 74:2, 4, 13; 79:13; 80:2; 85:4; 89:7, 24; 91:10; 94:23; 95:4; 103:3; 104:10, 24;				

106:11; 107:5; 111:24; 116:10; 117:16; 118:3; 122:10; 126:15; 127:8; 128:1, 17; 131:4; 132:3, 21; 133:1, 6; 137:23; 140:6, 13, 19; 142:1, 24; 145:13; 146:15; 152:9; 154:4; 159:5; 164:9 One [2] - 93:20; 98:3 one-and-a-half [1] - 107:5 one-minute [1] - 104:10 ones [7] - 91:11; 95:18; 97:12; 129:5; 133:19; 156:15; 160:17 ongoing [1] - 60:24 online [9] - 39:5, 12; 48:12; 49:12; 65:7; 93:10; 95:17; 97:2; 100:13 open [3] - 30:1; 47:24; 54:4 open-bid [1] - 54:4 opening [1] - 125:9 operate [6] - 45:18; 90:9; 97:10; 99:17; 126:18; 128:18 operated [1] - 25:4 operates [1] - 90:1 operating [2] - 99:15; 157:17 operation [7] - 16:10; 45:11; 59:16; 85:21; 86:2; 155:8; 156:21 operational [3] - 40:8; 43:24; 63:18 operations [7] - 8:22; 12:3; 48:16; 71:20; 73:1; 74:6; 77:5 operators [1] - 97:3 opinion [4] - 122:10, 18; 131:21; 158:9 opinions [1] - 126:11 opportunities [2] - 5:13; 136:1 opportunity [5] - 83:19; 124:2; 129:24 oppose [1] - 132:13 opposed [22] - 31:9; 41:21; 67:22; 70:19; 83:18; 85:21; 86:2; 102:9; 103:20; 112:14; 115:24; 116:1; 121:17;	123:18; 130:8; 149:11; 159:16; 160:5; 161:9; 164:19 opposite [2] - 106:6; 113:8 opposition [2] - 104:17; 132:14 optimal [1] - 121:12 options [3] - 92:15; 105:16; 160:13 order [6] - 5:14, 16; 53:21; 75:17; 142:4; 154:12 orderly [1] - 133:7 orders [1] - 93:7 Ordinance [1] - 38:9 ordinance [33] - 34:13; 36:17; 42:14, 22; 109:24; 110:15; 114:21; 115:2; 124:13; 125:20, 22; 129:19; 134:16; 135:12; 141:24; 142:1; 144:5, 8; 145:14; 146:11; 147:4; 148:9; 150:9; 152:5; 153:23; 154:1; 158:6, 13, 15-16, 22 organization [1] - 99:12 originally [1] - 73:24 otherwise [4] - 15:18; 129:11; 142:11 ought [1] - 137:20 outbid [3] - 122:10, 13 outflows [1] - 27:1 output [2] - 12:8; 96:6 outputs [1] - 26:1 outside [3] - 23:15; 72:20; 77:8 overall [4] - 26:24; 79:16; 95:11 overlap [1] - 48:24 overview [1] - 156:15 own [8] - 27:21; 37:15; 71:24; 89:5, 23; 90:9; 100:17; 122:21 owned [1] - 88:23 owner [5] - 16:6; 90:16; 99:8 owner/operator [1] - 143:6 owners [1] - 99:13 owning [1] - 97:9 owns [1] - 49:20 Ozmen [8] - 1:12; 5:5; 34:1; 62:7; 81:20;	126:19; 127:10; 163:12 OZMEN [3] - 4:6; 62:9; 117:9 Ozmen's [5] - 3:3; 59:16; 61:8; 81:11, 15	16:12, 16; 17:20; 20:13; 30:8; 36:5; 45:3, 14, 24; 47:5; 49:22; 61:12, 16, 23; 62:19, 24; 77:2, 15, 18; 78:8, 22; 85:14; 105:8; 113:7; 126:24; 127:5, 7-8; 143:22; 152:14; 158:23 part [41] - 16:8; 35:9; 36:7, 10; 40:24; 54:8; 59:24; 75:8; 85:23; 86:20; 87:19, 21; 88:16; 94:15; 99:17; 105:7, 11; 107:14; 108:10; 110:20; 113:9; 116:9; 117:3; 118:18; 119:4; 126:6; 127:9, 13; 130:18; 138:11; 144:22; 145:3; 146:10, 18; 147:10; 151:13, 24; 153:16 participant [1] - 17:6 participate [1] - 87:21 participating [3] - 16:2; 17:11; 47:5 participation [2] - 115:23; 123:14 particular [17] - 12:18; 14:4; 29:22; 30:1; 34:18; 40:17; 62:23; 67:13; 71:8; 74:18; 77:24; 80:2; 96:14; 125:21; 150:13; 156:16; 158:20 particularly [2] - 15:14; 77:4 parties [1] - 112:13 Partners [2] - 88:24; 89:5 parts [3] - 15:19; 54:18; 93:17 party [3] - 43:10, 12; 143:21 pass [2] - 19:19; 137:23 path [2] - 95:13; 98:12 Pause [20] - 4:2; 6:3; 38:21; 48:5; 53:13; 55:11; 60:22; 62:10; 67:24; 68:14; 80:19; 86:15; 102:10; 104:4; 112:9; 121:19; 132:10; 139:17; 148:2; 159:4 paved [2] - 27:16	pay [5] - 90:6; 93:5; 95:6; 137:24 payments [2] - 71:23; 94:24 PBLLC [1] - 1:3 PD10 [1] - 53:1 peaker [7] - 12:14; 48:13; 49:3; 96:20, 22-23; 100:12 pending [1] - 129:16 people [11] - 5:15; 12:14, 16; 14:14; 53:12; 105:8; 109:10; 134:13; 137:13; 138:12; 163:14 per [12] - 14:19; 36:17; 43:9, 15; 64:12; 80:6, 10, 13; 84:4; 96:9; 115:1; 154:3 perceive [1] - 70:10 percent [20] - 9:8; 26:2; 64:16, 19, 22; 65:14; 66:5; 79:13; 85:9, 16; 88:23; 91:14; 106:21; 107:6, 9; 150:1 percentage [2] - 79:12; 99:3 percentages [1] - 99:22 perfectly [1] - 46:18 perform [3] - 73:11; 150:22; 153:1 performance [1] - 12:9 perhaps [2] - 73:3; 140:5 perimeter [5] - 15:21; 19:17, 20; 23:22; 47:4 period [11] - 26:8; 44:4; 62:15; 65:18; 119:15; 154:14; 155:4; 158:6 periodic [1] - 13:12 permission [3] - 97:4, 7, 10 permit [22] - 59:3; 64:2; 85:21; 86:2; 91:2; 115:5; 126:1; 130:2; 137:2; 142:17; 145:4, 9, 12, 15, 21; 147:6, 10; 150:3, 9, 17, 21; 151:15 Permit [1] - 11:8 PERMIT [1] - 1:1 permitted [2] - 61:17; 124:6
--	--	--	--	--

perpetually [1] - 21:16 perplexed [1] - 132:16 person [10] - 23:24; 29:12; 38:8; 73:17; 79:21, 23; 84:4; 109:17; 124:4; 137:1 personally [1] - 92:10 persons [1] - 117:22 pertaining [1] - 119:8 petition [1] - 116:21 phase [8] - 11:19; 12:3; 13:10; 27:14; 33:22; 89:17, 24; 145:11 phases [3] - 10:24; 35:13; 91:13 PhD [1] - 56:9 philosophy [1] - 14:7 phone [2] - 104:8; 143:6 photograph [1] - 69:21 phrasing [1] - 70:13 physically [2] - 71:6, 14 pick [1] - 109:21 piece [2] - 23:7; 130:12 pierced [1] - 21:21 pile [10] - 9:24; 10:19; 11:9; 15:15; 23:4, 6; 44:24; 45:21; 53:1; 137:10 pile-mounted [1] - 23:4 piles [18] - 10:10; 11:13; 14:9; 15:9; 12-13; 21:15; 28:12; 44:19; 45:10; 46:1, 10, 13, 17; 72:7 piling [3] - 21:7; 35:5; 44:16 pilings [2] - 15:9; 21:4 pipeline [1] - 94:10 place [11] - 23:20; 27:24; 51:2; 72:2; 92:13; 94:4; 106:9; 114:5; 122:18; 152:4; 165:9 placed [1] - 10:20 places [2] - 23:2; 109:16 Plan [2] - 143:15; 146:13 plan [50] - 13:9; 14:9; 18:18; 19:6, 22; 20:7; 25:6; 36:13, 18, 20-21; 47:16-18, 21; 48:1; 92:12;	94:4; 98:9; 107:16, 18; 114:8, 10, 13, 17, 21-22; 115:1, 3; 129:9; 143:8, 10, 12, 14, 19; 145:2, 6, 17, 22; 146:12, 16-17; 150:15, 23-24; 151:14; 152:16; 153:20 planned [3] - 20:13; 89:1; 94:11 planning [3] - 5:7; 41:3; 144:19 PLANNING [1] - 1:1 Planning [12] - 1:17; 4:8; 20:22; 41:24; 111:1; 119:9; 138:22; 139:12, 20; 141:7; 151:19; 155:22 plans [3] - 51:17; 98:11; 120:20 plant [11] - 12:14; 15:3; 49:3; 72:18; 94:20; 97:17, 22; 100:12, 18; 151:10 planted [4] - 47:8; 120:1; 121:8, 10 planting [3] - 14:24; 66:24; 151:12 plants [21] - 48:13; 57:8; 93:10; 94:17; 95:2, 17, 24; 96:4, 11, 14-15, 20, 24; 97:2, 5, 9, 12, 17; 100:15, 23; 120:1 play [1] - 154:16 Pledge [2] - 4:12 plowed [1] - 120:7 plug [1] - 71:5 plugged [1] - 69:8 pockets [2] - 122:7, 11 podium [1] - 84:13 point [23] - 35:1; 45:22; 54:15; 64:13; 66:8; 69:4; 92:13, 15; 94:2, 6; 95:15; 100:19; 110:8; 112:4; 114:20; 118:3; 126:5; 143:17; 144:13; 153:14; 157:1; 162:13 Policy [1] - 56:24 pollinated [1] - 47:22 pollination [1] - 20:5 pollinator [6] - 46:23; 47:11, 14; 120:1; 151:1	Pollinator [1] - 120:21 pollinator's [1] - 19:23 Pollinator-Friendly [1] - 120:21 pollinator-friendly [6] - 46:23; 47:11, 14; 120:1; 151:1 pollinators [1] - 135:6 Pollution [3] - 11:8; 50:8; 147:16 pollution [2] - 13:17; 131:23 pooling [1] - 21:12 populations [2] - 111:6, 9 portfolio [1] - 89:6 portion [6] - 44:16; 47:11; 61:21; 67:2; 85:14; 103:17 portions [2] - 61:21; 141:23 position [7] - 6:20; 86:18; 87:16, 19; 89:13; 101:9, 22 positioned [1] - 94:8 positive [4] - 76:2, 15-16; 133:17 possibility [1] - 135:23 possible [1] - 17:23 possibly [4] - 69:15; 84:8; 108:24 post [2] - 16:20; 86:7 post-construction [1] - 16:20 postcard [1] - 118:9 postcards [1] - 116:22 posted [3] - 85:20; 86:1; 117:12 posts [2] - 15:21 potential [7] - 85:3; 90:10; 93:6; 94:5; 107:3; 126:22; 131:23 potentially [3] - 20:10; 22:8; 89:19 pounders [1] - 52:22 pouring [1] - 23:8 power [29] - 25:22; 26:4; 94:17, 20; 95:2, 10, 22, 24; 96:1, 3, 5, 10-12, 14-16; 97:2, 5, 9-10, 12, 18; 98:6; 100:15, 23; 119:23; 146:22 powered [1] - 93:10 PowerPoint [14] - 3:3; 59:17; 61:8; 62:7,	12; 81:9, 12, 15, 20, 24; 82:12, 24 pre [5] - 16:13; 26:17 pre-conditioned [1] - 26:17 pre-construction [2] - 16:13; 26:18 pre-design [1] - 16:13 precipitation [1] - 12:22 predict [1] - 105:20 prefer [1] - 70:11 preference [1] - 116:12 preferred [1] - 74:4 preliminary [4] - 5:17; 17:21; 18:5; 26:23 prepare [1] - 58:23 PREPARED [1] - 1:3 prepared [3] - 4:10; 19:6; 76:24 preparing [1] - 59:24 presence [2] - 110:3 present [5] - 4:18; 8:4, 17; 66:13; 129:24 presentation [4] - 35:12; 58:16; 81:9; 82:13 presented [1] - 24:2 President [2] - 93:8; 94:2 president [2] - 56:15; 87:17 presiding [1] - 4:21 presume [1] - 78:5 pretty [4] - 27:23; 126:9; 143:9; 158:16 Prevention [1] - 11:8 previous [1] - 7:9 previously [3] - 13:16, 24; 43:18 Price [1] - 64:9 prices [2] - 96:3, 6 primary [8] - 46:12; 48:20; 57:3-5; 88:21; 89:2; 142:24 print [2] - 69:2; 142:5 priority [1] - 97:11 private [2] - 89:4, 7 privilege [1] - 92:4 privy [1] - 87:22 probability [2] - 110:2, 4 probably.. [1] - 139:7 problems [3] - 131:1 Procedure [1] - 158:15 procedure [6] - 18:20; 38:12; 42:15, 17;	43:5; 158:17 procedures [3] - 37:6; 42:19; 51:6 proceed [1] - 51:19 proceeding [1] - 57:10 Proceedings [1] - 165:6 proceedings [1] - 57:15 process [17] - 14:22; 27:13; 38:10; 54:4; 90:3; 94:17; 97:5; 100:8; 138:4; 141:19; 142:14; 145:4, 8; 147:10; 155:19; 158:17 produced [1] - 64:7 producers [1] - 67:9 producing [3] - 26:4; 96:16; 127:4 production [6] - 25:22; 40:5; 66:3; 96:11; 98:1; 121:2 productions [1] - 131:24 products [1] - 54:23 professional [1] - 147:14 professionalism [1] - 163:12 professionals [1] - 74:6 Professor [3] - 118:1; 119:13; 120:14 professor [1] - 56:19 profit [3] - 93:4; 99:9, 12 profits [2] - 93:5 program [2] - 29:22; 56:22 programs [1] - 95:7 prohibited [1] - 153:17 prohibition [1] - 153:16 project [145] - 8:9, 21; 9:2, 20; 10:16, 21; 11:4, 22; 12:8; 13:9, 18, 22; 14:16; 15:1, 16, 19; 16:8, 11, 18; 19:16, 19; 20:1; 21:11, 19; 24:12; 26:6; 27:1; 30:2; 31:9; 33:10-12, 19, 21-22; 34:19; 35:23; 36:15, 23; 37:3; 40:7; 44:9; 46:23; 48:22; 49:7, 11, 20; 50:3; 51:5; 58:24;
--	--	--	---	---

61:17, 21; 62:23; 64:2, 4, 6; 65:15; 70:20; 74:4; 75:12; 76:1, 14, 17, 21; 77:19; 78:8, 12; 79:6; 89:16, 20, 22, 24; 90:5, 8, 15, 17, 20; 91:4, 12, 16; 92:14; 93:7; 100:9; 101:14, 20; 103:8, 20; 110:19; 112:14, 20; 114:3; 119:7; 120:22; 121:15; 123:19; 126:19, 24; 127:3, 9; 128:17, 24; 129:3, 8, 10-11, 18; 130:3; 136:2; 138:9; 139:2; 140:2, 22; 143:2, 16; 144:1; 146:15, 20, 22; 150:13, 18, 20; 151:17; 152:1, 7, 14; 154:17; 155:9; 156:16; 157:10, 12, 17; 159:9; 160:19 Project [3] - 36:5; 89:24; 119:20 project's [3] - 54:14; 79:17; 129:6 project-wide [1] - 51:5 projected [1] - 67:10 projections [1] - 105:18 projects [26] - 7:6; 28:15; 46:4; 48:6, 8-9, 14, 21; 51:15; 52:10; 57:6, 19, 21; 73:8; 91:9, 15, 17; 94:10, 13; 95:12; 98:10; 108:15; 127:15; 128:8 promote [1] - 126:20 proof [3] - 124:11; 132:13 proper [1] - 122:18 properly [3] - 20:2; 21:14; 65:17 properties [6] - 39:18, 22, 24; 128:16, 19; 133:8 Property [2] - 60:9; 127:11 property [19] - 17:13, 22; 18:2; 41:2; 57:6; 71:24; 106:3, 7; 113:13, 18; 128:9; 129:2; 133:2; 148:15; 150:22; 152:19, 23; 163:15 propose [1] - 150:24	proposed [6] - 57:8; 91:17; 97:5, 12; 114:22; 115:1 prospective [4] - 46:7; 61:14; 89:13; 141:16 protect [3] - 90:19; 116:1; 151:19 protected [5] - 18:17, 22; 92:3; 107:23; 144:22 protection [1] - 153:8 prove [1] - 132:17 provide [19] - 46:20; 85:1, 9, 16; 99:12; 126:20; 128:8; 141:13; 143:1, 3, 14; 147:8, 13; 150:1; 151:5; 152:14; 153:11, 20 provided [18] - 48:2; 75:24; 77:21; 126:3; 142:6; 143:3, 8, 10; 144:9, 11, 17, 20; 146:13; 147:16, 19, 23; 148:14 proving [1] - 124:11 provision [8] - 42:24; 63:20; 142:17; 153:21, 23; 154:2; 157:13; 158:5 provisions [3] - 42:23; 144:5; 154:1 public [44] - 4:9; 29:10; 31:8; 38:19; 57:13; 67:21; 83:15, 17, 20; 84:3, 9, 11, 16; 98:22; 99:10, 14; 102:8; 103:6, 17-18; 112:14, 18; 115:23; 119:4-6, 8, 10, 14; 121:16; 123:14, 19, 21, 23; 128:21; 132:22; 147:4; 162:13; 163:7 pulled [2] - 10:7; 69:8 pulling [1] - 137:10 purchasing [3] - 30:7; 45:5 Purdue [1] - 6:24 purely [1] - 71:9 purpose [1] - 164:3 purposes [1] - 116:14 purview [2] - 141:12, 14 push [3] - 52:23; 97:4, 22 put [16] - 30:12, 22; 40:4; 41:10; 52:20;	62:8; 71:7, 13-14, 23; 75:18; 104:23; 108:19; 109:19; 136:19 putting [7] - 21:4; 29:3; 41:3; 94:3; 122:18; 123:3; 130:24 puzzled [1] - 110:18 PV [1] - 52:7	34:4 quite [6] - 44:10; 45:13; 93:16; 103:15; 128:22; 136:21 quo [1] - 156:1 quote [1] - 106:3 quoting [2] - 106:2; 107:1	recently [2] - 24:23; 76:13 recess [6] - 84:18, 21; 113:19; 139:10, 13 Recess [2] - 84:22; 139:14 Reclamation [1] - 143:15 recognize [1] - 42:13 recollection [1] - 149:20 recommend [4] - 51:7; 160:19; 161:13 recommendation [17] - 19:12; 130:2; 139:3; 140:7, 21; 141:12; 154:14; 155:22; 159:6; 160:12, 14-15, 20; 162:9 Recommendation [1] - 141:8 recommendations [4] - 51:5, 18; 140:8; 160:10 recommended [5] - 19:16; 46:6; 140:20; 160:16, 24 recommending [1] - 150:20 reconvene [1] - 4:7 record [23] - 6:16; 31:19, 21-22; 32:16; 56:2; 83:5; 84:23; 87:12; 107:15; 114:1; 116:8, 14; 117:10; 118:19; 126:6; 129:17; 134:3; 139:19; 140:12; 141:18; 161:12 record's [1] - 116:14 recycled [1] - 14:12 redirect [3] - 50:10; 80:18; 102:17 redo [1] - 156:4 reduce [1] - 107:3 reduction [3] - 45:12; 107:5, 9 reestablish [1] - 14:20 refer [1] - 41:6 reference [4] - 105:1; 106:8; 129:9; 158:7 referenced [4] - 49:18; 101:14; 127:10, 24 referencing [1] - 28:15 referred [1] - 56:5	
		Q	R		
		qualifications [1] - 47:15 qualified [3] - 58:9, 13; 147:13 qualify [2] - 8:2; 41:4 quality [4] - 73:7, 9, 11, 14 quantity [1] - 35:11 quarter [2] - 123:8; 131:6 quarter-mile [2] - 123:8; 131:6 questioning [3] - 5:15; 103:11; 108:10 questions [90] - 5:13; 7:20; 15:7, 23; 16:1; 19:23; 20:16, 21; 24:13, 17; 28:6; 31:3, 10; 32:19; 33:3; 34:7; 37:12; 38:19; 39:1; 41:19, 23; 42:2; 49:14; 50:13; 53:3; 55:3; 58:4, 6; 59:5, 9, 12; 60:4, 13; 63:2, 9; 65:22; 67:17, 19, 21; 68:1; 70:19; 80:15, 20-21; 85:4; 86:9; 88:8, 10, 13, 15, 17; 92:18, 20; 93:6; 98:17; 100:2; 101:1; 102:5, 8, 15-16, 18, 20; 105:1; 110:12, 19, 24; 111:16; 112:5, 7, 11, 13, 17, 19; 115:10; 123:16; 125:3; 129:23; 137:1, 6; 141:1; 149:13; 158:1; 159:2 quick [1] - 156:22 quicker [1] - 36:6 quickly [2] - 45:23; 126:14 quiet [3] - 13:11, 18;	racking [1] - 43:13 raise [5] - 69:22; 70:8, 12; 90:4; 92:2 raised [7] - 16:1; 19:23; 27:5; 50:18; 117:21; 125:4; 136:5 random [1] - 38:1 range [1] - 21:6 rate [11] - 65:13; 69:4, 11-13, 22; 70:5, 8 rates [3] - 68:20, 24; 69:23 rather [2] - 64:6; 66:18 rating [6] - 43:8, 13, 16, 23; 44:3; 126:18 reach [2] - 50:21, 23 reached [1] - 137:21 read [8] - 24:23; 52:9; 111:11; 116:13; 141:11; 142:5; 149:22; 160:17 ready [1] - 137:3 real [6] - 25:3; 61:13; 106:19; 126:14; 127:17; 156:22 really [20] - 23:5; 32:11; 58:15; 64:9; 68:23; 77:4; 89:20; 93:21; 94:8; 97:20; 101:8; 105:8; 115:22; 136:2; 140:18; 148:6; 157:13; 158:9; 162:23 reason [6] - 20:1, 5; 39:13; 68:19; 151:4; 152:1 reasons [1] - 25:5 reassessment [1] - 63:14 rebuttal [1] - 119:1 receipt [1] - 151:15 receive [1] - 94:24 received [1] - 117:4 receiving [1] - 62:14 recent [3] - 52:12; 128:2, 5		

referring [1] - 73:16 reflect [2] - 74:23; 161:12 reflects [1] - 9:6 regard [3] - 95:23; 97:19; 114:20 regarding [7] - 5:9; 20:21; 62:18; 110:24; 111:18; 143:5; 148:15 regardless [2] - 43:3; 152:8 regards [2] - 93:20; 94:21 regenerate [1] - 121:12 Regional [3] - 1:17; 41:24; 151:19 regional [1] - 72:13 regular [2] - 13:15; 79:3 regularly [1] - 120:6 regulations [1] - 129:12 Regulatory [1] - 56:24 regulatory [1] - 57:1 reimburse [1] - 153:10 reiterate [2] - 105:3, 6 reiterated [1] - 150:10 related [3] - 58:3; 87:23; 147:9 relates [5] - 15:7; 62:24; 126:15, 23; 128:15 relating [2] - 62:12; 129:5 relation [6] - 72:11; 76:1; 144:6; 149:21; 152:18; 156:17 relationships [1] - 75:10 relative [2] - 90:6; 99:6 relatively [5] - 13:5; 22:6; 45:11; 96:2; 153:13 releases [1] - 74:13 relevant [2] - 125:6; 148:6 relying [1] - 46:12 remainder [1] - 61:16 remaining [2] - 11:23; 123:2 remains [3] - 18:10; 48:18; 156:1 remediated [1] - 15:15 remedy [2] - 42:24; 43:5 remember [3] - 17:17;	50:18; 127:6 remind [4] - 120:4; 129:14; 141:9; 148:5 reminder [4] - 120:15; 121:20; 140:18; 159:5 remotely [1] - 25:4 remotely-operated [1] - 25:4 removed [8] - 11:24; 14:3, 7, 10; 27:19 removing [2] - 14:9; 40:19 renewable [5] - 7:3, 18; 57:19, 21; 74:9 Renewable [1] - 56:21 renewables [1] - 7:5 rent [1] - 122:13 rental [1] - 97:14 renting [1] - 121:3 repairs [1] - 51:6 repeat [2] - 158:8, 11 repeated [1] - 21:9 replacement [1] - 18:9 replant [1] - 151:22 report [6] - 61:20; 68:5; 75:23; 76:24; 128:6 Report [1] - 165:6 reported [1] - 165:7 Reporter [3] - 1:23; 165:4, 16 REPORTER [3] - 118:16; 136:11; 165:3 reporting [3] - 108:7; 158:3 reports [1] - 144:3 representatives [1] - 163:11 request [4] - 7:17; 27:22; 40:17; 154:7 requested [1] - 44:10 required [8] - 144:7; 146:9; 147:5, 21-23; 150:3; 152:16 requirement [2] - 42:16; 51:11 requirements [20] - 14:19; 38:2; 43:19; 54:1; 125:20; 134:16; 135:12; 141:24; 142:1, 8, 24; 143:2; 147:2, 15; 151:9; 152:3, 5, 8 requires [3] - 114:21; 146:23; 155:3 reroute [1] - 18:1	rerouting [1] - 18:9 Research [1] - 56:12 research [1] - 54:20 researchers [1] - 106:16 reside [1] - 57:23 residence [6] - 30:3, 8; 45:2, 4, 23; 49:19 residences [1] - 146:12 resident [8] - 32:20; 83:21-24; 84:1; 103:23; 134:5 residential [2] - 106:17, 20 resistance [1] - 10:10 resolution [5] - 42:19; 138:2; 158:3, 7 resolve [1] - 75:12 resolved [1] - 138:5 resounding [2] - 127:2; 129:21 resource [1] - 96:4 resources [1] - 157:16 respect [2] - 92:1; 164:5 respectfully [1] - 130:1 respond [1] - 18:20 response [3] - 144:22; 153:9 responsible [2] - 79:21; 91:7 rest [1] - 121:5 rested [1] - 103:5 restructuring [1] - 24:6 result [3] - 41:9; 79:3; 96:2 results [1] - 75:14 resurveyed [1] - 26:21 retained [1] - 41:9 retaining [1] - 162:21 retire [1] - 100:19 return [3] - 14:13; 19:3; 101:21 returned [1] - 121:2 reused [1] - 14:12 revealing [1] - 92:6 revenue [3] - 61:15, 22, 24 revenues [2] - 59:18; 69:23 reversible [1] - 119:24 reverts [1] - 14:15 review [5] - 114:12, 15; 143:20; 145:19 Rick [3] - 1:15; 28:20; 103:14	Ridge [4] - 88:22, 24; 89:1, 5 rights [1] - 97:8 rise [2] - 64:17; 119:19 risk [1] - 46:21 RIVES [6] - 58:6; 82:8, 20, 22; 114:20; 139:8 Rives [18] - 1:9; 5:20; 7:19; 42:3; 58:7; 70:23; 81:17; 82:6, 19; 102:14; 112:24; 115:7; 118:22; 124:24; 139:4; 163:1, 22 road [11] - 11:2; 27:6, 21-22; 65:8; 137:10; 138:18; 147:5; 150:7; 152:5 Road [1] - 65:6 road-bridge [1] - 65:8 roads [8] - 27:15; 29:10; 128:21; 129:4, 7; 137:14; 147:4 Robin [1] - 118:9 robust [1] - 158:16 rock [6] - 29:4, 7-9; 46:11, 18 role [1] - 56:14 roll [2] - 4:14, 22 rolling [2] - 63:22, 24 rooftop [1] - 95:4 room [3] - 97:6; 116:23; 117:19 rotate [1] - 13:3 rotates [1] - 9:22 rotation [1] - 12:9 roughly [1] - 35:8 round [1] - 29:6 routine [1] - 12:16 rows [2] - 11:17; 135:18 royal [2] - 34:8; 108:13 Royal [5] - 1:15; 2:5, 10; 28:7; 53:5 ROYAL [2] - 28:9; 53:9 royal's [1] - 53:4 RPR [1] - 1:22 rules [1] - 103:24 run [14] - 11:16; 12:13; 35:16; 71:15; 78:1; 95:24; 96:2; 97:18; 122:14; 154:9, 20; 156:14 running [6] - 11:23; 23:19; 39:13; 97:17,	22; 156:21 runoff [4] - 16:12, 22; 120:9; 134:23 runs [1] - 63:22 runway [2] - 89:14; 101:24 rural [3] - 77:2; 79:8; 107:7 rust [1] - 21:16 Ryan [1] - 137:22
S				
safe [3] - 34:20; 69:15; 70:7 safely [1] - 126:18 safety [4] - 38:6; 84:12; 126:15; 132:22 sake [1] - 47:13 sale [8] - 80:12; 89:8, 11, 19, 21; 90:12; 91:4 sales [5] - 89:21; 90:10; 127:14, 19; 128:4 Salt [1] - 122:16 salt [1] - 130:23 salvage [2] - 85:11; 150:2 Sam [1] - 95:6 Santa [1] - 118:13 satisfied [1] - 163:17 satisfy [2] - 125:19; 126:4 saw [7] - 59:16; 76:15; 98:3; 125:10; 162:23; 163:4 SCADA [2] - 12:7, 19 scale [4] - 94:20; 106:16; 107:2, 8 scary [1] - 84:9 scenario [1] - 39:21 schedule [1] - 109:23 schedules [1] - 49:2 School [3] - 62:13; 68:13; 117:18 school [15] - 31:4; 59:19; 63:1, 21-22; 67:20; 68:21, 23; 69:22; 70:2, 12; 102:7; 112:8 science [2] - 88:3; 156:12 scientist [1] - 108:20 scope [1] - 27:4 score [1] - 20:2 scorecard [2] - 19:23; 47:14 Scott [2] - 1:7; 4:23				

screen [2] - 62:8; 146:11 screening [11] - 19:5; 47:8; 146:9, 17; 151:6, 8, 13, 17 screw [3] - 46:2, 10, 17 screwed [1] - 46:1 screws [1] - 46:14 se [1] - 96:9 sealed [1] - 152:22 season [3] - 15:3; 18:24; 19:3 seat [1] - 55:15 seats [1] - 139:16 second [23] - 28:24; 49:7; 62:5; 69:19, 21; 82:4; 105:14; 126:23; 133:1; 142:21; 145:11; 149:4; 159:22; 161:2, 5, 17-18; 164:14 secondary [1] - 22:23 seconded [1] - 118:10 seconds [2] - 121:24; 123:2 sectors [2] - 71:11; 75:17 secure [1] - 34:19 securing [2] - 28:13; 91:7 see [24] - 12:10; 13:7; 17:24; 22:5; 26:24; 27:7, 21; 31:5; 51:3, 5; 62:13; 65:20; 66:4; 68:9, 17; 75:20; 89:8; 94:20; 101:21; 122:24; 134:1; 137:21; 141:24; 156:22 seed [1] - 80:12 seeing [5] - 96:11; 136:23; 137:9; 162:15 segment [1] - 72:6 segments [1] - 71:18 self [1] - 108:7 self-reporting [1] - 108:7 sell [1] - 157:12 selling [3] - 66:15; 79:22; 89:1 semantics [1] - 69:20 Senate [1] - 94:1 send [2] - 12:12, 15 senior [2] - 6:21; 87:21 sense [2] - 43:18; 62:2 sent [1] - 10:16	separate [5] - 49:1; 74:2; 79:15; 115:2 separately [1] - 140:15 September [6] - 105:15; 161:17, 24; 162:10; 165:21 serious [1] - 120:9 serves [1] - 89:22 Service's [1] - 144:19 services [1] - 162:22 set [18] - 4:5; 11:18; 64:11; 69:23; 70:2-4; 114:4; 140:19; 141:15, 23; 142:4; 143:9; 149:19; 150:21; 159:12; 165:9 setback [3] - 19:2; 144:14; 147:2 setbacks [1] - 147:2 setting [1] - 150:20 seven [3] - 21:6; 35:5; 46:16 several [5] - 12:20; 32:1; 105:23; 109:16; 132:20 shade [1] - 20:10 Shaffer [1] - 31:11 Shaffer's [1] - 163:24 shape [1] - 98:1 shards [1] - 109:1 share [1] - 20:3 shared [1] - 17:5 sheet [2] - 89:14; 101:23 Shelby [3] - 12:13; 49:11; 105:12 SHELBY [1] - 1:3 shelter [1] - 120:2 SHERMAN [32] - 2:20; 31:12, 17; 32:1, 5, 7, 16, 21; 33:4, 6, 8; 34:5; 37:11; 38:14; 68:1, 3; 70:14; 104:2, 5, 8, 12, 14, 16, 21; 106:11, 14; 115:14, 17, 21; 132:11; 161:19; 164:4 Sherman [25] - 2:6, 14; 31:14; 32:4, 19; 34:4; 38:18; 52:8; 67:23; 70:18; 103:20, 22; 110:23; 111:18; 112:14, 19; 113:6; 114:2; 115:13, 16; 127:24; 132:9; 133:15 Sherman's [2] - 164:1,	5 shifting [2] - 18:11; 19:5 shipping [1] - 10:22 SHOOK [15] - 28:20, 23; 30:24; 31:23; 32:15; 52:17, 19; 53:2; 60:18; 62:4; 63:4, 7; 101:4; 103:15; 162:7 Shook [20] - 1:15; 2:6, 9, 13, 19; 28:19; 31:1; 32:12; 51:21; 52:16; 53:5; 60:16; 62:5, 21; 63:6; 101:2; 102:4; 103:12 shortens [1] - 21:17 shorter [1] - 46:15 shorthand [2] - 165:7 show [4] - 63:15, 23; 67:6; 103:6 shows [6] - 41:1; 64:2; 68:7; 106:5; 128:3 SHPO [1] - 144:22 shrubs [1] - 151:10 shut [2] - 39:13; 40:3 side [11] - 7:5, 7; 8:23; 9:18; 13:22; 65:1; 113:8; 123:7; 126:22; 149:11; 160:5 sign [2] - 120:11; 152:10 signed [4] - 94:2; 98:9; 100:9; 147:23 significance [1] - 126:12 significant [7] - 16:22; 30:20; 41:8, 14; 80:2; 125:12; 126:21 significantly [1] - 46:15 signify [2] - 149:6; 159:24 silence [1] - 148:3 silicon [4] - 9:4, 9; 34:11; 108:21 silicone [1] - 52:7 silver [1] - 122:24 similar [5] - 10:19; 29:11; 120:23; 147:4; 153:13 simply [4] - 97:13; 99:7, 11; 127:22 simultaneously [1] - 22:4 single [1] - 9:21	single-axis [1] - 9:21 Site [2] - 120:21; 143:15 site [26] - 11:21, 24; 12:2, 6, 13, 20; 18:16, 23; 21:10, 14; 26:12, 21; 38:5; 46:23; 106:20; 120:19, 24; 121:9; 143:8, 10; 147:8; 151:1, 3; 152:22; 153:18 site's [1] - 11:1 site-on [1] - 38:5 sites [4] - 26:12; 106:16; 155:13 siting [3] - 144:12; 152:16; 154:8 situation [1] - 120:23 situations [1] - 18:3 Six [1] - 101:12 six [4] - 19:18; 31:5; 101:10, 13 six-inch [1] - 19:18 size [2] - 10:22; 160:19 skid [1] - 137:9 skip [2] - 31:7; 105:24 slated [1] - 48:11 slide [8] - 8:24; 9:19; 10:23; 12:5; 13:20; 15:8; 35:12; 52:10 slides [1] - 8:13 slight [1] - 128:9 slightly [1] - 85:2 slow [2] - 47:16 slow-growing [1] - 47:17 slow-mowing [1] - 47:16 small [11] - 10:9; 19:19; 54:4; 76:6; 79:11; 80:3; 106:21; 127:8; 135:21 soft [1] - 15:14 software [13] - 66:9; 71:5, 14-15; 73:21; 74:1, 3, 10, 19; 75:11; 77:20 soil [8] - 9:13; 10:1; 14:13; 46:3, 7; 108:24; 121:7 soils [1] - 51:9 SOLAR [1] - 1:2 solar [67] - 7:6; 9:3, 10; 10:15; 13:6; 15:10; 22:11; 24:23; 28:13; 41:3; 48:9, 14; 54:2, 17; 57:7; 64:4; 65:1, 14;	71:19; 72:16, 18; 73:8; 76:3, 14; 91:5, 8; 95:2, 9, 21; 96:8, 22; 97:13, 18, 20, 22; 98:6; 100:13; 106:16; 107:2, 8; 108:15; 110:16; 111:5, 8; 122:3, 5, 7, 11, 19-20, 22-23; 123:4; 125:20; 127:15; 128:8; 130:24; 131:6, 8, 12; 134:22; 136:19; 143:13; 144:18; 150:12; 157:17 Solar [8] - 4:9; 8:12, 19; 38:9; 52:5; 89:23; 120:21; 162:15 sold [3] - 89:17; 152:2 solely [2] - 49:11; 73:6 solid [2] - 9:10, 15 solution [1] - 129:4 someone [3] - 37:19; 97:15; 159:13 somewhat [2] - 65:10; 66:2 somewhere [4] - 32:11; 107:15; 153:24; 154:10 sorry [15] - 39:8; 42:13; 44:16, 20; 69:5; 110:15; 111:23; 123:9; 140:16; 141:11; 147:7, 24; 148:18; 157:6; 158:7 sort [7] - 9:12; 14:24; 90:9; 91:1; 99:23; 142:9; 156:14 sound [3] - 13:16; 52:9; 131:18 sounds [3] - 23:18; 39:2; 131:16 source [2] - 73:10; 96:22 sourced [7] - 10:11; 28:12; 54:23; 72:17, 21; 77:2, 7 sources [1] - 131:23 south [2] - 123:7; 131:4 southern [1] - 62:24 soybean [1] - 120:5 soybeans [1] - 80:13 space [1] - 7:18 span [2] - 24:11; 25:17 Speaking [1] - 22:4 speaking [1] - 17:15
---	---	---	--	---

SPECIAL [1] - 1:1 special [12] - 115:6; 121:10; 142:16; 143:1; 145:8; 147:11; 154:9; 155:7, 17 species [3] - 18:13; 20:8; 110:5 specific [18] - 19:2; 36:5, 19; 37:5, 8; 40:17; 53:20, 24; 61:9; 66:10; 74:8; 77:14, 18; 143:16; 145:1; 150:12; 154:4 specifically [6] - 36:24; 68:4; 76:20; 95:16; 107:7; 143:24 specifics [2] - 89:20; 154:1 spectator [1] - 122:10 speed [1] - 59:12 spell [4] - 56:3; 87:13; 118:11; 134:7 spelled [1] - 87:14 spelling [1] - 118:4 spending [3] - 71:21; 72:15, 24 spent [6] - 7:4; 67:2; 72:11, 19; 73:5; 93:22 spill [1] - 22:24 split [1] - 68:19 spring [4] - 120:7; 122:16; 123:6; 131:5 spun [1] - 74:1 St [1] - 88:4 stable [4] - 75:3, 5, 10; 101:17 staff [5] - 41:23; 70:21; 102:12; 112:22; 118:22 stage [3] - 85:21; 86:2; 145:8 stamped [1] - 147:23 stand [7] - 4:11; 6:1; 55:10; 84:6, 11; 86:14; 103:9 standalone [1] - 90:2 standard [2] - 43:16; 128:12 standards [4] - 38:6; 100:22; 126:4; 129:18 standing [2] - 23:17; 134:13 standpoint [3] - 22:19; 41:7; 61:22	start [11] - 11:22; 35:14, 18; 42:8; 59:9; 63:18; 93:11, 21; 119:10; 141:5; 161:24 start-up [1] - 11:22 started [4] - 104:21; 106:15; 136:23; 159:11 starting [1] - 163:11 starts [2] - 11:1; 142:18 state [11] - 6:16; 14:14; 52:6; 56:2; 57:2, 13; 72:12; 87:12; 134:2; 135:19; 143:24 State [11] - 11:8; 16:8; 19:24; 31:6; 56:20; 64:5; 72:20; 90:23; 112:1; 129:12; 155:13 state-wide [1] - 72:12 statement [13] - 62:18; 124:2, 4-5, 7-8, 14, 21; 125:9; 132:7; 133:16; 136:4 statements [4] - 130:6, 8, 17; 138:21 States [4] - 35:3; 54:15; 108:16; 122:3 stating [1] - 99:11 station [1] - 121:4 stations [1] - 12:21 statistics [4] - 66:11; 67:7; 71:10 statue [1] - 19:24 status [2] - 75:5; 156:1 statute [4] - 64:5, 15, 19; 152:16 statutes [1] - 50:8 stay [3] - 77:12; 95:12; 100:16 staying [1] - 18:11 steel [7] - 10:1, 11; 11:11; 21:15; 22:17; 28:11; 72:7 steer [1] - 137:9 Steffen [3] - 5:5; 82:1, 4 Steffen's [4] - 3:4; 20:3; 41:6; 128:22 step [4] - 55:7; 80:24; 86:14; 102:22 still [12] - 24:5; 41:11; 43:4; 54:17; 60:23; 68:21; 80:1; 95:19;	98:1; 115:5; 125:10; 155:17 stipulated [3] - 34:13; 150:1; 156:20 stipulates [3] - 36:18; 40:15; 85:9 stipulation [13] - 5:8; 81:2, 4-5; 83:11, 14; 84:21; 85:5, 7, 20; 86:5, 9; 150:4 stole [1] - 105:23 stop [3] - 32:24; 35:18; 138:13 stopwatch [1] - 32:24 storage [2] - 153:16 storm [4] - 11:6; 16:9; 131:8 Storm [1] - 11:7 stow [3] - 12:19; 43:17, 21 Strategic [1] - 56:12 strength [2] - 46:20; 63:23 stressful [1] - 136:20 strictly [2] - 54:21; 122:9 strike [1] - 74:22 strong [3] - 89:12; 101:23; 104:23 structural [1] - 43:24 structures [2] - 144:13; 152:13 studies [11] - 106:10; 107:6; 111:11; 113:16; 122:23; 127:16; 128:1; 131:12; 144:3 Studies [1] - 56:24 study [18] - 13:16; 16:14; 63:13; 76:13; 106:5, 19, 24; 111:23; 113:11; 122:21; 127:22; 128:3, 5, 10, 13; 137:3 Study [1] - 127:11 stuff [8] - 40:20; 101:6; 105:2; 108:4; 109:9; 113:18; 123:9 sub [2] - 17:8; 18:2 sub-surface [1] - 18:2 sub-surface-wise [1] - 17:8 subcontractors [2] - 37:15; 38:4 subgrade [1] - 27:18 subject [15] - 8:10; 20:13; 38:5; 50:1; 61:4; 84:7; 85:14;	114:9, 11; 140:23; 143:20; 160:16, 21, 23; 161:13 subjected [1] - 103:11 submissions [1] - 147:22 submit [6] - 19:6; 116:23; 117:20; 126:1, 7; 129:20 SUBMITTED [1] - 1:2 submitted [16] - 36:22; 114:22, 24; 116:10; 117:3, 17; 118:9, 18; 126:6, 9, 13; 127:13; 128:7; 129:17; 145:6 Subparagraph [12] - 143:4, 7, 11; 144:15; 146:24; 151:6; 153:15; 154:5; 157:6, 14 subparagraph [2] - 143:12; 147:18 subscriptions [1] - 12:23 subsidiary [1] - 90:20 subsides [1] - 95:1 substation [1] - 10:16 sudden [3] - 136:23; 137:8 suffers [1] - 122:14 sufficient [3] - 125:19; 126:4; 129:7 sufficiently [1] - 128:13 suggest [2] - 107:5; 159:14 suggests [1] - 107:2 summaries [1] - 130:17 summarize [1] - 133:24 summarizes [1] - 124:7 summary [7] - 106:15; 141:17; 142:9, 11; 143:1; 149:16 summer [3] - 93:22; 131:3 sun [4] - 9:6, 22; 30:9; 95:23 sunlight [1] - 9:5 sunny [1] - 97:21 sunrise [1] - 45:20 sunset [1] - 98:7 sunsetting [1] - 98:4 super [1] - 94:23 Superintendent [1] - 117:18 supervised [1] - 60:2	supper [1] - 32:8 supplied [1] - 80:4 supplier [5] - 78:6, 18; 79:4; 80:3 suppliers [1] - 77:15 supply [5] - 54:7; 66:21; 75:8; 76:12; 77:6 supplying [3] - 78:7, 19; 79:5 support [7] - 12:15; 15:10; 101:11, 13; 117:6; 119:19 supposed [3] - 4:4; 95:18; 125:23 Supreme [1] - 148:8 surely [1] - 23:2 surety [2] - 25:18, 21 surface [2] - 17:8; 18:2 surfacing [1] - 9:14 surrounding [2] - 30:21; 133:8 survey [5] - 16:20; 18:5; 26:18, 20; 27:7 surveying [2] - 7:1; 152:12 surveys [5] - 16:15; 17:21; 26:16, 19; 27:3 switches [2] - 24:23; 25:4 sworn [8] - 6:6, 12; 55:14, 22; 87:1, 8; 104:6, 18 system [6] - 12:7, 19; 13:3; 17:4; 21:17; 135:11
T				
table [7] - 67:14; 68:6, 17; 69:15; 71:8; 125:11 tables [1] - 66:8 tabs [1] - 93:23 Tad [1] - 4:20 talks [4] - 38:9; 69:3; 106:1; 132:21 tandem [1] - 100:23 tariffed [1] - 54:3 taught [1] - 56:22 tax [25] - 57:6; 59:17; 61:13, 15, 22, 24; 63:15; 65:14; 68:5-7; 69:3, 7, 11-13, 22-23; 70:4-6, 8; 95:3; 98:1, 4				

taxed ^[1] - 63:19 taxes ^[1] - 71:24 taxing ^[1] - 61:13 taxpayers' ^[1] - 122:7 team ^[4] - 87:22; 88:16; 91:7; 163:13 Tech ^[5] - 106:5, 14; 111:23; 113:11; 128:2 technical ^[6] - 8:22; 13:22; 14:2; 41:7; 107:13; 147:22 technology ^[2] - 52:7; 100:21 telecommunications ^[1] - 56:23 temperature ^[1] - 30:20 temperatures ^[1] - 30:14 Temple ^[1] - 56:10 temporary ^[2] - 11:6; 19:1 ten ^[10] - 23:6; 32:22; 33:2; 38:24; 97:7; 105:16; 131:10; 139:8 ten-minute ^[1] - 139:9 ten-year ^[1] - 105:16 tend ^[3] - 75:10; 96:3, 5 tends ^[1] - 45:11 term ^[7] - 24:8; 107:14; 154:5, 13-14; 155:6; 159:15 terms ^[23] - 19:21; 43:7; 44:4, 15; 45:9; 46:22; 60:24; 61:1; 63:20; 66:12; 70:12; 72:15; 75:1, 7, 19; 77:13; 78:4; 79:10, 12; 113:24; 124:13; 145:1; 148:17 terrain ^[1] - 11:4 terrain-following ^[1] - 11:4 test ^[5] - 148:7, 11; 153:3, 6 testified ^[10] - 6:13; 7:9; 55:23; 57:9; 82:5; 87:9; 104:19; 128:24; 141:19; 163:7 testify ^[15] - 5:12; 58:8, 14; 83:19, 24; 84:2, 5, 15; 103:8, 17, 19, 21; 104:3; 116:1 testifying ^[2] - 7:23;	33:12 TESTIMONY ^[1] - 104:20 testimony ^[18] - 5:4; 8:5; 20:20; 41:6; 59:17; 83:15, 21; 84:11; 85:1; 111:1, 18; 125:16; 126:3, 10; 148:14, 16, 20 testing ^[5] - 11:22; 37:22, 24; 38:2; 153:1 tests ^[1] - 137:11 Thankan ^[1] - 73:20 that's.. ^[1] - 32:8 THE ^[17] - 1:2; 6:9; 24:15; 33:20; 37:10; 55:19; 59:23; 60:2; 65:21; 70:17; 87:5; 88:6; 92:9, 12; 98:15; 102:23 theme ^[1] - 18:12 themselves ^[2] - 34:23; 43:7 there'll ^[2] - 47:21; 116:9 therefore ^[1] - 8:4 thereto ^[1] - 160:17 they've ^[3] - 70:3; 116:10; 142:7 think.. ^[1] - 83:9 thinking ^[1] - 134:20 thinks ^[1] - 137:13 third ^[8] - 5:7; 43:10, 12; 49:9; 68:12; 73:17; 133:6; 143:21 third-party ^[3] - 43:10, 12; 143:21 third-person ^[1] - 73:17 this.. ^[1] - 26:15 thoughts ^[1] - 130:20 thousand ^[2] - 67:9; 154:2 thousands ^[1] - 122:17 threatened ^[2] - 18:13, 22 three ^[46] - 9:1; 20:13; 27:6; 46:17; 49:22; 61:12, 16, 22; 62:14, 19, 24; 63:4, 16, 22, 24; 65:18; 67:10; 68:9, 22, 24; 77:18; 78:22; 84:3, 12; 85:14; 95:18; 105:8; 106:20; 113:6; 116:21; 119:14; 120:16;	121:21; 127:5, 7-8; 140:16, 18; 142:22; 143:22; 149:12; 158:23; 160:6, 13; 161:13 three-minute ^[1] - 119:14 three-year ^[3] - 63:22, 24; 65:18 threshold ^[1] - 20:4 thrive ^[1] - 135:7 throughout ^[3] - 9:22; 16:9; 21:19 throw ^[1] - 159:10 thunder ^[1] - 105:23 tile ^[15] - 16:15; 17:15; 18:1, 4, 7, 11; 21:13; 22:8; 41:10, 12; 51:4, 6, 8; 152:12 tiled ^[1] - 17:20 tiles ^[1] - 17:22 timeline ^[2] - 8:21; 15:8 tiny ^[1] - 69:2 titled ^[3] - 140:13; 141:6 to.. ^[1] - 157:1 today ^[4] - 8:17; 90:21; 94:14; 117:17 Todd ^[1] - 136:9 together ^[2] - 55:1; 130:21 tolerance ^[1] - 43:20 TOM ^[2] - 2:20; 104:16 Tom ^[1] - 1:15 tonight ^[15] - 5:3, 6; 31:16; 33:13; 53:15; 91:15; 110:20; 125:3, 18; 128:1; 129:16; 139:16; 145:2, 9; 156:5 took ^[1] - 65:3 top ^[7] - 11:14; 24:10; 27:18; 35:11; 44:21; 141:6 topic ^[2] - 86:10; 148:16 topo ^[1] - 41:1 topographical ^[1] - 144:10 topsoil ^[2] - 14:21; 46:19 tornado ^[3] - 123:6; 131:4 tornados ^[1] - 131:7 total ^[1] - 65:15 totalling ^[1] - 91:13 totals ^[1] - 68:8	toward ^[1] - 92:24 towards ^[2] - 9:22; 67:3 Township ^[3] - 65:9; 83:22; 84:1 townships ^[1] - 65:16 track ^[2] - 95:13; 123:9 tracker ^[7] - 9:21; 10:10; 11:4, 14-15; 13:3 trackers ^[6] - 9:20, 23; 10:19; 11:10; 14:10; 28:11 trackers' ^[1] - 12:9 tracking ^[1] - 93:21 traffic ^[1] - 13:15 trafficked ^[1] - 14:18 train ^[1] - 153:11 transaction ^[1] - 106:19 transactions ^[1] - 128:10 transcript ^[1] - 165:8 transitions ^[1] - 12:3 translate ^[2] - 72:5 translation ^[1] - 72:2 transmission ^[2] - 57:7; 97:3 treated ^[3] - 8:3; 120:7 trees ^[3] - 151:11, 21 trenched ^[1] - 11:18 trend ^[1] - 131:16 trending ^[2] - 64:8, 12 tried ^[1] - 50:21 trouble ^[1] - 39:8 truck ^[1] - 137:10 trucking ^[1] - 66:15 true ^[2] - 89:3; 165:7 trust ^[1] - 99:16 trusty ^[1] - 121:9 try ^[6] - 29:23; 61:6, 10; 93:16; 158:10, 20 trying ^[2] - 79:20; 93:9 trying.. ^[1] - 32:6 Tuesday ^[3] - 105:15; 161:17 turbine ^[1] - 109:9 turbines ^[1] - 29:17 turn ^[5] - 4:22; 61:1; 106:4; 125:5; 140:9 turned ^[2] - 122:6; 136:14 turns ^[1] - 70:4 two ^[29] - 5:2, 4, 6; 23:2; 28:15; 48:8, 11, 24; 63:16; 65:16; 68:23; 69:4;	74:2; 79:14; 91:13; 100:23; 104:23; 105:8, 16; 107:9; 117:22; 119:5; 131:7; 135:18; 136:12; 140:13, 24; 145:8 two-and-a-half ^[1] - 107:9 two-point ^[1] - 69:4 two-stage ^[1] - 145:8 type ^[3] - 94:23; 156:21 types ^[5] - 89:21; 94:22; 95:8; 98:6; 119:6 typical ^[1] - 99:7 typically ^[2] - 66:22; 72:15
U				
U.S ^[10] - 7:6; 10:12; 28:10, 18; 34:21; 52:8, 11, 13; 144:18 uh-oh ^[1] - 96:19 ultimately ^[6] - 82:11; 118:20; 129:11; 133:11; 145:20, 22 unbolded ^[1] - 142:5 Uncle ^[1] - 95:6 under ^[13] - 23:2, 11; 40:20; 48:8; 52:5, 11; 84:16; 91:9, 15, 18; 97:13; 129:19 undergraduate ^[1] - 88:1 underlying ^[1] - 66:11 undermine ^[1] - 126:8 understood ^[3] - 47:23; 73:21; 108:14 unfavorable ^[1] - 89:10 unforeseen ^[2] - 15:14; 18:17 union ^[3] - 38:2; 45:19; 72:22 unions ^[1] - 72:22 unique ^[2] - 94:15, 18 Unit ^[1] - 62:13 unit ^[1] - 23:19 United ^[4] - 35:3; 54:15; 108:16; 122:3 units ^[4] - 31:3; 67:19; 102:6; 112:7 University ^[6] - 7:1; 56:10, 20; 73:24; 88:4; 112:1				

unknown ^[1] - 39:13 unknowns ^[1] - 155:14 unless ^[9] - 14:4, 7; 15:13; 27:20; 40:16; 73:16; 86:23; 142:10; 153:24 unlike ^[1] - 9:11 unreasonable ^[1] - 78:17 unsealed ^[1] - 152:23 up ^[65] - 6:1; 11:22; 15:3, 6; 27:2; 31:11, 16; 39:6, 12; 40:4; 44:10; 48:9; 55:9; 59:12; 62:8; 63:15, 23; 67:6; 71:3; 78:19; 83:3, 11, 14; 84:6; 85:12; 86:14; 93:11; 96:6; 103:9, 22; 105:14; 108:11; 109:2; 110:7; 122:23; 123:11; 130:10; 131:17; 132:17, 19; 133:10; 134:13; 135:24; 136:12; 137:10, 24; 138:18; 140:7; 141:10, 15-16, 23; 142:4; 147:24; 150:23; 158:20; 159:10; 160:11; 162:10; 163:6 updated ^[3] - 36:14; 74:11 Uphoff ^[13] - 2:7; 38:20, 22; 41:19; 110:7; 121:18; 123:13; 130:10, 19; 132:6; 133:3; 164:6 UPHOFF ^[13] - 38:23; 39:4, 11; 41:17; 121:22; 122:1; 123:3, 12, 15; 130:13, 15, 20, 23 upstairs ^[2] - 162:7 usable ^[1] - 54:3 USDA ^[2] - 67:8, 12 USE ^[1] - 1:1 useful ^[2] - 90:7; 101:20 uses ^[2] - 133:2; 154:9 utilities ^[2] - 57:2; 128:21 utility ^[4] - 57:13; 94:20; 107:2, 8 utility-scale ^[3] - 94:20; 107:2, 8 utilize ^[3] - 9:3, 21; 159:12	utilized ^[1] - 77:3 Utilizes ^[1] - 52:6 utilizing ^[2] - 11:4; 94:16 V vacant ^[1] - 106:17 vacation ^[1] - 97:14 value ^[12] - 64:3, 17, 21; 76:9, 11-12; 85:12; 106:21, 23; 113:13; 150:2 Value ^[2] - 60:10; 127:11 values ^[9] - 106:3, 7; 107:3, 6-7, 10; 113:18; 128:9; 148:15 variability ^[1] - 96:5 variety ^[2] - 25:5; 54:24 various ^[3] - 12:8; 71:18; 93:23 vegetable ^[1] - 22:20 vegetation ^[10] - 12:1; 13:13; 20:6; 30:16, 19; 47:18, 21; 48:1; 121:11 vegetative ^[13] - 19:21; 47:8; 120:10; 146:9, 16; 151:6, 13, 17-18; 152:6 Vegetative ^[1] - 146:13 verbal ^[1] - 107:12 verify ^[1] - 11:22 Vermeer ^[1] - 53:1 Vermillion ^[1] - 91:17 versions ^[1] - 93:24 versus ^[3] - 16:3; 37:3; 143:24 vertically ^[1] - 11:12 vetting ^[1] - 100:8 viable ^[1] - 24:5 vice ^[1] - 87:17 vicinity ^[1] - 133:3 violation ^[2] - 154:3 Virginia ^[5] - 106:5, 14; 111:23; 113:11; 128:2 Vision ^[4] - 88:22, 24; 89:1, 5 vote ^[12] - 81:23; 92:14; 119:7; 130:1; 131:22; 133:12; 138:23; 139:3; 140:7; 160:12, 18 voted ^[1] - 139:24 votes ^[3] - 140:16, 19;	155:23 voting ^[3] - 131:22; 139:22; 150:19 W W-a-n-d-l-i-n-g ^[1] - 134:10 wait ^[2] - 35:18; 97:7 waiver ^[1] - 147:3 waivers ^[1] - 144:14 WANDLING ^[5] - 133:17, 23; 134:4, 9, 12 Wandling ^[2] - 134:5 wants ^[9] - 88:13; 133:21; 141:1; 144:23; 146:2; 148:19; 153:2; 156:17 warming ^[2] - 134:23; 135:2 warning ^[2] - 104:10; 121:23 warnings ^[1] - 147:1 warranty ^[8] - 25:13, 17, 20, 22-23; 26:8; 44:4 Washington ^[1] - 88:4 water ^[12] - 11:6; 16:9; 21:12; 30:20; 41:8, 15; 57:2; 131:2, 23; 153:1, 5 Water ^[1] - 11:7 watershed ^[2] - 123:5; 131:1 Watts ^[8] - 1:16; 2:5, 8, 12, 18; 4:21; 117:1 watts ^[1] - 26:4 WATTS ^[40] - 4:3, 7, 14, 17, 19; 20:24; 25:10, 12; 28:3; 50:16; 51:20; 60:7, 12; 98:21; 99:24; 117:3, 6; 141:3; 142:13; 145:1, 24; 149:10; 158:2, 12, 18, 24; 159:17; 160:4, 22; 161:1, 5, 9, 11; 162:3, 20; 164:10, 13, 16, 19, 22 ways ^[1] - 129:7 wealth ^[1] - 109:11 weather ^[8] - 9:16; 12:19, 23; 43:22; 44:22; 45:1; 120:24; 121:4 web ^[2] - 112:3;	113:22 website ^[4] - 116:5; 117:12 weed ^[3] - 48:1; 150:15, 23 weeds ^[1] - 150:15 week ^[2] - 67:4; 105:21 weekend ^[1] - 94:3 weeks ^[1] - 35:18 welcome ^[1] - 5:1 welfare ^[7] - 109:8, 14; 126:16, 20; 132:23 well-defined ^[1] - 153:22 well-drained ^[1] - 41:7 wells ^[3] - 152:21 west ^[2] - 9:23; 30:14 wet ^[1] - 21:16 wetland ^[1] - 41:16 wetlands ^[4] - 40:23; 41:4, 6, 11 what-ifs ^[1] - 101:18 whatnot ^[2] - 18:17; 54:2 wherewithal ^[1] - 88:11 white ^[4] - 29:4, 7 whole ^[16] - 22:11; 33:2; 40:5; 69:9; 76:17, 21; 77:17, 19; 78:12; 104:15; 109:8; 138:4; 143:16; 144:2; 156:5 whoops ^[1] - 104:14 wide ^[2] - 51:5; 72:12 wife ^[1] - 122:16 Wildlife ^[1] - 144:19 wildlife ^[5] - 35:17; 82:5; 137:3; 144:18 WILL ^[3] - 2:16; 87:6, 14 willing ^[1] - 135:13 wind ^[25] - 9:17; 12:21; 13:1; 29:17; 43:8, 13, 17, 20, 22; 46:21; 57:7; 95:2, 9, 22-23; 96:8; 98:5; 109:9, 24; 110:15; 142:3; 147:4; 149:21; 156:19 winded ^[1] - 95:12 wiring ^[1] - 11:16 wise ^[2] - 17:8; 91:14 wish ^[6] - 103:8; 121:17; 123:19, 21; 124:13 wishes ^[7] - 103:16,	19, 21; 116:1; 121:15; 124:4 wishing ^[2] - 112:18; 132:8 withstand ^[1] - 9:16 witness ^[33] - 5:23; 6:11; 7:18, 23; 8:3; 20:17; 32:23; 39:1; 41:20; 50:13; 55:8, 10, 16, 21; 57:9; 58:10, 13; 81:1, 3; 82:4; 84:6, 11; 85:4; 86:14, 17; 87:7; 88:8; 102:18; 103:1, 9; 104:17; 128:17 Witness ^[4] - 6:6; 55:14; 87:1; 104:6 WITNESS ^[15] - 6:9; 24:15; 33:20; 37:10; 55:19; 59:23; 60:2; 65:21; 70:17; 87:5; 88:6; 92:9, 12; 98:15; 102:23 WITNESSES ^[1] - 2:2 witnesses ^[6] - 5:4, 6, 12, 18; 85:1; 125:17 wondered ^[1] - 24:9 word ^[3] - 70:8, 11; 86:6 words ^[2] - 16:1; 79:20 works ^[5] - 11:2, 9; 27:13; 95:19 world ^[6] - 13:6; 54:7; 122:19; 132:1, 4; 154:10 worth ^[1] - 21:12 written ^[9] - 116:3; 117:20; 118:18; 145:14; 148:9; 149:2; 151:9, 16 written.. ^[1] - 116:24 wrote ^[1] - 118:8 Y y'all ^[2] - 31:6; 161:24 Y-u-r-s ^[1] - 136:10 year ^[24] - 14:17; 40:7, 9; 48:12; 63:17, 20, 22, 24; 64:10, 16, 18; 65:18; 74:13, 15; 75:3; 89:3, 10; 101:9; 105:16; 120:7; 121:1; 128:6; 155:13 year-to-year ^[1] - 75:3 years ^[42] - 24:3, 11; 26:1, 3, 6; 27:6; 40:5; 44:5, 10, 13;
--	---	---	--	---

56:20; 62:14; 63:5,
16; 69:21; 89:14;
96:12; 97:7; 101:24;
105:17, 21; 106:10;
109:21; 131:10, 17;
133:10; 136:12;
154:8, 11, 15, 21;
155:15, 21; 156:9;
159:16, 21

yearslong ^[1] - 97:5

yesterday ^[9] - 30:6;
40:23; 41:6; 47:24;
109:6, 18; 117:17;
123:16; 125:10

yields ^[1] - 121:5

young ^[3] - 122:4, 9,
12

yourself ^[1] - 73:17

Yurs ^[5] - 49:20;
136:5, 9; 138:19;
163:14

YURS ^[4] - 136:7, 12,
15, 18

Yurs' ^[1] - 50:1

Z

zero ^[4] - 64:22;
149:12; 160:6;
161:13

ZIMMERMAN ^[6] -
53:14, 16, 19; 55:2;
111:19, 22

Zimmerman ^[6] -
1:16; 2:10, 21;
53:15; 55:4; 111:20

zinc ^[1] - 10:9