ILLINOIS POLLUTION CONTROL BOARD

SIERRA CLUB, ENVIRONMENTAL LAW )
AND POLICY CENTER, PRAIRIE RIVERS )
NETWORK, and CITIZENS AGAINST ) PCB 13-15
RUINING THE ENVIRONMENT, )
Complainants, )
vs. )
MIDWEST GENERATION, LLC, )
Respondent. )

REPORT OF THE PROCEEDINGS held in the above-entitled cause before HEARING OFFICER BRADLEY P. HALLORAN, taken by Raelene Stamm, CSR, Certified Shorthand Reporter licensed by the State of Illinois, at 100 West Randolph Street, Chicago, Illinois, on the 15th day of June, 2023, commencing at the hour of 9:00 a.m.

Reported By: Raelene Stamm, CSR
License No.: 084-004445

## APPEARANCES :

```
ILLINOIS POLLUTION CONTROL BOARD MS. VANESSA HORTON, Staff Attorney
```

MS. FAITH BUGEL
1004 Mohawk Road
Wilmette, Illinois 60091
(312) 282-9119
fbugel@gmail.com
On behalf of Complainant, Sierra Club;

MR. GREG WANNIER
SIERRA CLUB
2101 Webster Street
Suite 1300
Oakland, California 64612
(415) 977-5646
greg.wannier@sierraclub.org
On behalf of Complainant,
Sierra Club;
L.A. Court Reporters, L.L.C.

Electronic Filing: Received, Clerk's Office 06/22/2023
June 15, 2023

## APPEARANCES: (Continued)

```
MR. ABEL RUSS
ENVIRONMENTAL INTEGRITY PROJECT
Vermont Avenue, NW
Suite 1100
Washington, DC 20005
(202) 296-8800
    On behalf of Complainant,
    Prairie Rivers;
MS. JENNIFER T. NIJMAN
MS. KRISTEN LAUGHRIDGE GALE
MR. ANDREW NISHIOKA
NIJMAN FRANZETTI, LLP
1 0 \text { South LaSalle Street}
Chicago, Illinois 60603
    On behalf of the Respondent.
```

Electronic Filing: Received, Clerk's Office 06/22/2023
June 15, 2023

ALSO PRESENT:

MS. DAGMARA AVELAR, Public Comment<br>MS. DESTINY ORTIZ, Public Comment<br>MS. ANN TAYLOR, Public Comment

M. AN TAYLOR, Public Comment

Electronic Filing: Received, Clerk's Office 06/22/2023
June 15, 2023

| I N D E X |  |  |  |  | Page 5 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| WITNESS | DX | CX | RDX | RCX |  |
| DR. BRIAN RICHARD |  |  |  |  |  |
| By Ms. Gale | 7 |  |  |  |  |
| By Ms. Bugel |  | 37 |  |  |  |
| By Ms. Gale |  |  | 71 |  |  |

Electronic Filing: Received, Clerk's Office 06/22/2023
June 15, 2023


HEARING OFFICER HALLORAN: All right. We're on
the record. Good morning. My name is Bradley
Halloran. I'm a hearing officer with the Illinois
Pollution Control Board. This case is PCB 13-15.
It has been continued on record from yesterday June 14, 2023. Today is June 15, 2023.

I want to note for the record our staff attorney, Vanessa Horton, is here.

And I believe Miss Gale has her next
witness unless there's anything else we need to talk about.

MS. GALE: No. We call Mr. -- or Dr. Brian Richard.

HEARING OFFICER HALLORAN: Okay. Mr. Richard. Dr. Richard or Mr.?

THE WITNESS: Mr. is fine.
(WHEREUPON, the witness was duly sworn.)

BRIAN RICHARD,
called as a witness herein, having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION
BY MS. GALE:

## Q. Good morning.

[^0]A. Good morning.
Q. Dr. Richard, you've been retained in this matter?
A. Yes, correct.
Q. For what purpose were you retained?
A. To estimate the economic value of the power generation facilities of Midwest Generation in Illinois.
Q. You have a small binder in front of you. Can you open it up to the first exhibit that's been marked for identification purposes as 1801?
A. Yes.
(WHEREUPON, Exhibit No. 1801 was
marked for identification.)
BY MS. GALE:
Q. What is Exhibit 1801?
A. My resume.
Q. Okay. And looking at the first part of your resume, please tell us about your educational background.
A. I have a Ph.D. in international
development, a master's degree in applied economics, and a bachelor's degree in finance.
Q. And below your education you have a group

[^1]entitled experience. What do you currently do?
A. I'm part of a group called Center For

Governmental Studies at Illinois University, and we do economic development and workforce development analysis, evaluation, policy development in primarily four state agencies.
Q. What is your title?
A. Assistant director.
Q. And to confirm, where is this Center For Governmental Studies?
A. NIU is located in DeKalb. My office is actually in downtown Chicago a couple blocks from you.
Q. And what does NIU stand for?
A. Northern Illinois University.
Q. How long have you been with NIU?
A. Just over a decade.
Q. And before joining NIU, where did you

## work?

A. At the University of Southern Mississippi where $I$ was a faculty member in a department that had a master's degree program in economic development and a Ph.D. program in human capital development.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

Q. Do you have any additional certifications?
A. Certification as an economic development finance professional which is additional training beyond kind of the academic work more focused on economic development, financial analysis.
Q. And I'm sorry. I didn't hear you. Did you say an economic development
finance professional?
A. Correct.
Q. Thank you. And do you have any additional training beyond your education and certification?
A. The IMPLAN economic model offers a two-day workshop for people that operate their model. I went through that training. So it just focuses on the operation of the model making sure you understand how to choose the inputs correctly, how to interpret the outputs of the model, those sorts of things.
Q. And what is the IMPLAN model?
A. IMPLAN is an acronym short for Impact Analysis For Planning. So it's a way of estimating the economic impacts of any sort of economic activity, a factory, a retail operation, a service
industry, where it estimates based on the activity of the facility its payroll, the things it purchases in the local economy for their inputs, what the overall economic activity.

So it estimates -- you know, the employees are spending their money in the local economy, so it estimates additional jobs that are created as the employees buy groceries, they buy clothes, they go to the movies. Estimate -- you know, if the company itself, say, is purchasing inputs, office supplies, other things, maintenance, industrial maintenance, that puts additional money into the local economy, and it estimates the jobs and income that are created from those activities.

## Q. And what data sources does the IMPLAN

## model include?

A. It uses a variety of primarily data sources that are produced by the federal government, the Bureau of Labor Statistics, the Bureau of Economic Analysis, the Census Bureau. So those are things like expenditure patterns of businesses, what do businesses spend their money on. Expenditure patterns of households, so how do people spend their money in the local economy. And

[^2]it uses all of those as input into its model.
Q. And who developed the IMPLAN model?
A. It was originally developed by the
U.S. Forest Service to estimate impacts of activities and eventually was taken over by a group at the University of Minnesota who developed further so it could be used more widely. And it now operates, I believe, as a private nonprofit company out of North Carolina. I think they continue to update the data on a yearly basis and make improvements.
Q. And you use the IMPLAN model.

Who else uses the IMPLAN model?
A. I believe it's the most commonly used economic impact model in the country. Lots of universities use it. State agencies use it. Federal agencies use it. There are some other models that do similar types of analysis, but it's the most commonly used model.
Q. And for the model, what inputs go into the IMPLAN model?
A. It needs a measure of the economic activity of the facility that you're analyzing. So how many employees do they have, what's the total
payroll, what's the total sales of the business that you're analyzing, so just measures of the size of the business.

MS. GALE: And, Mr. Hearing Officer, we move for the admission of Exhibit 1801 which is Dr. Richard's CV, and we also move to qualify Dr. Richard's as an expert in economic value.

HEARING OFFICER HALLORAN: Miss Bugel, any objections.

MS. BUGEL: No objection to either motion.
HEARING OFFICER HALLORAN: Okay. So qualified, and Exhibit 1801 is admitted.
(WHEREUPON, Exhibit No. 1801 was admitted for the record.)

BY MS. GALE:
Q. Dr. Richard, can you turn to the next tab in the binder in front of you? You'll see a document that's been identified as Exhibit 1802?
A. Yes.
(WHEREUPON, Exhibit No. 1802 was marked for identification.)

BY MS. GALE:
Q. What is this document?
A. This is the report I prepared that
estimates the economic impact of Midwest Generation generating stations in Illinois.
(Reporter clarification.)
MS. BUGEL: And before we continue, I want to note that our copy is missing Page 1.

HEARING OFFICER HALLORAN: Are we on 1802.
MS. GALE: We are on 1802. It has been noted that Page 1 is missing.

THE WITNESS: I have a copy in my folder back there.

MS. GALE: Why don't you pull out the copy in your folder that we can follow, and then we can correct it when we take a break.

HEARING OFFICER HALLORAN: It looks like every odd page is missing.

MS. GALE: That's what it appears to have been copied as.

HEARING OFFICER HALLORAN: Thank you.
MS. BUGEL: And can I ask if Mr. Richard has any notations or anything written on his copy?

HEARING OFFICER HALLORAN: Are we off the record or you have to speak up.

MS. BUGEL: We can be off the record.
HEARING OFFICER HALLORAN: Okay. We're off the
record for now.
(WHEREUPON, a discussion was had off the record.)

HEARING OFFICER HALLORAN: All right. We're back on the record.

BY MS. GALE:
Q. So we're gonna put your report on the screen in a minute, and you have your report in front of you?
A. I do, yes.
Q. Okay. So you touched upon this related to the IMPLAN model, but generally speaking what does an economic impact analysis of an industry evaluate?
A. It estimates what's commonly called the multiplier effect of economic activity. So, you know, a business affects the economy by paying its employees, by buying inputs in its production process, and those have what they call multiplier effects in the local economy. Those employees take their paychecks, they purchase goods and services in the local economy. They buys groceries, clothes, go to the movies. And those purchases create additional jobs, additional economic

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

activity.
Sometimes it's also referred as a ripple effect as the money ripples through the economy. And the same with the purchases of inputs by the business. You know, maybe they have a landscaping service that they purchase. They buy office supplies. They buy, you know, whatever goods and services that are needed to run their business, and those activities then have impacts in the local economy as those businesses pay their employees and those employees spend their money in the local economy.
Q. And here for that economic impact analysis, what did you use? What tool did you use?
A. The IMPLAN input-output model.
Q. And for the inputs for the IMPLAN model, where did you obtain this information from?
A. Midwest Generation provided their employment numbers by ZIP code, so I knew the location of where the employees were located and the payroll figures for those employees.
Q. Let's turn to Page 2 of your report. So on Page 2 we have a few definitions of terms.

Dr. Richard, what is direct activity for

[^3]the purposes of an input-output analysis?
A. That's the activity of the facility itself or the business itself, its purchases and payroll.
Q. And what is indirect activity?
A. Indirect activity is economic activity that results from the business buying goods and services in local economy, their inputs in the local economy.
Q. And what are induced economic impacts?
A. Induced impacts are those impacts from the employees spending their money in the local
economy.
Q. And what -- how does a multiplier work? What's a multiplier?
A. A multiplier is simply just the overall activity, the direct, indirect and induced all added together, divided by that original direct activity. So it's just a way of kind of summarizing the overall impact of this facility.
Q. So back to Page 2, which is

MWG 13-15 underscore 82254.
When you wrote this opinion in April of 2021, how many employees did Midwest Generation have?

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

A. Just over 300,303 employees.
Q. And you said you had access to their income as well?
A. Correct. Overall it includes benefits, so this is their pay plus the value of their benefits.
Q. And how would you describe the salaries of the Midwest Generation employees?
A. These are well-paying jobs, well above average pay for each of the regions or the state.
Q. Let's turn to Page 3, Table 2. What is depicted in Table $2 ?$
A. This is the overall statewide economic impacts of all four Midwest Generation generating stations, summarizes the employment, the labor income which includes pay plus benefits. The value added, this is a way of estimating or putting a value on the overall economic activity. It's similar to gross domestic product you hear about in the news. And then output is like total sales of all of the businesses in the regions, so four different ways of presenting the impacts.
Q. And just for clarification purposes, does the statewide estimation include all of Midwest Generation's employees, to your recollection?

[^4]A. It does not. Some of their employees live in Wisconsin, and so we excluded them from the induced impacts because we were focused on the impacts on the state of Illinois. And so we recognizing that the Wisconsin based employees are gonna spend most of their money in Wisconsin, we excluded them from the estimates of the induced economic impact. I should say I. I have a team of seven, so I'm used to speaking -- but this is my work personally.

## Q. Thank you.

Okay. So looking at Table 2, starting with the second column under employment, you have various rows there. What are those rows under employment showing?
A. So the direct impact is the employment at the generating stations, 303 employees at the generating stations. The indirect estimates that 488 additional jobs were generated across Illinois based on the indirect impacts that the facilities buying their inputs for their operations.

The induced impacts come from the employees spending their incomes in the economy, 514 jobs across the state. And then the total is
simply those three -- first three rows added up, so 1305 total jobs.
Q. And when you were going over this Table 2 did you notice a typographical error in the multiplier?
A. I did. The employment multiplier should be 4.3. The output from this model comes out in a very unattractive way, so $I$ put it in an Excel table. And I've double-checked every other number, and every other number in the report is incorrect; but that one somehow got transcribed incorrectly, so that should be 4.3.
Q. Thank you.

Looking at the next column of Table 2
which is entitled, Labor Income -- well, first of all, labor income, you have an asterics there.

What is that asterics for?
A. So this is just a way that -- so I can show that we've adjusted those impacts based on those employees that live outside of the state. So we've excluded the Wisconsin based employees from -- and there may have been one or two in Indiana as well -- from the Will County area. So any employee that lived outside of Illinois we've

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

excluded them from the induced impact.
Q. Got it. And so under labor income, what are those numbers showing?
A. So the direct payroll, again, pay and benefits at the generating stations is just over 51 million or was in 2020, $\$ 51$ million. The indirect impacts, about $\$ 34$ million. So these are the impact -- the labor income of those 488 jobs that are created through the indirect impact. Just over $\$ 27$ million for the induced impacts, the 514 jobs created through the 514 induced jobs. And then for the total you just add those three together. $\$ 112.3$ million in labor income as a result of the operations of the generating stations.
Q. And then the next column is entitled, Value Added, in Table 2. What does that depict?
A. Value added is a measure of which I believe is the best measure of economic impact of an activity. It only includes the activity really that stays within the region. So value added is the payroll, any taxes that were paid, any income profits from the operations that stay locally. So, again, this is similar to gross domestic product

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

measure of the overall economy.
And so for the generating stations, the direct impact in terms of value added is just over $\$ 170$ million. Indirect from the facilities buying goods and services in the local economy, $\$ 56.2$ million, and then just under $\$ 48$ million for the induced impact. So the total value added from the operations of these facilities is just over $\$ 274$ million.
Q. So -- and then we have output.

What is output?
A. Output is simply the total sales of each facility, so essentially the revenue of the generating stations or other businesses that are in the indirect and induced -- and the reason this is so much larger than the value added is that for a lot of inputs that businesses buy, they buy them from out of state.

So that's why they get -- it's not the best measure of the economic impact of an activity, but it's -- I think it's, on the other hand, the easiest for people to understand. It's the total sales of the businesses, so -- so for the direct impacts of the generating stations 377.4 million,
about 99 million indirect from facilities buying goods in the local economy, and then just under 79 million for the induced impacts for a total output impact of over $\$ 555$ million statewide.
Q. Next question, let's turn to the next Page 4. So on Page 4 it's entitled, Powers and Generating Stations. So in this report you looked at statewide, and then what also did you look at?
A. I looked at the impacts of each facility on the local economy, the local region within the state. For Joliet and Will County, I combined them since they're both in the same county located just a few miles from each other. So there's three, I guess, regional economic impact analyses in the rest of the report starting with Powerton.
Q. And what county is Powerton in?
A. Powerton is --
Q. Or what region -- what regions do you look at for Powerton?
A. Yeah. So the way I constructed the regions was looked at those commuting patterns and tried to capture the county. So IMPLAN model, the regions are all built on counties, so capture the counties with the majority of the employee.

So 84 percent of the employees at Powerton live in Mason, Peoria, or Tazewell County, so that was the region that was used for Powerton.
Q. Got it. Thank you.
A. Let me correct that. Fulton and Woodford counties were also included, so the five-county region.
Q. Thank you.

Okay. So looking at Table 3, what does
Table 3 depict?
A. These are the same metrics we discussed for the statewide impacts for the Powerton Generating Station alone on those five counties.
Q. Got it. And so for those five counties, under the IMPLAN model what were the employment numbers?
A. So 113 employees at the Powerton facility in 2020, so those are the direct impacts. 191 indirect resulting from the facility buying goods and services in the region. Employees spending the induced impacts generated another 138 jobs for a total of 442 jobs. That's what we call the employment impact of Powerton Generating Station.

[^5]Q. And I think when we talk labor income, I'm just gonna have you go to -- for labor income for the employees in the Powerton region, the five counties, what was the total labor income for the region?
A. About 19.7 million. For the direct overall 13 -- 32.9 million.
Q. Right. Similarly, for the five counties in the Powerton region, what was the -- what was the direct value added and the total value added for the Powerton region?
A. About 62.3 million direct value added, in total 84 , just over $\$ 84.1$ million.
Q. And, finally, what was the total output for the Powerton region from the Powerton station?
A. Total output $\$ 186.3$ million total output resulting from Powerton Generating Station.
Q. If you turn to Page 5 of your report -- if you turn to Page 5 of your report, what are you showing here?
A. So these are the property taxes paid by Midwest Generation for this facility, and these figures come from the tax assessor's office. These are some of the impact -- the indirect and induced
\[

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$
\]

impacts are estimated. These are actual taxes paid by the facility in 2019 which was the most recent data available at the time of the report.
Q. And where did you get this information?
A. The Tazewell County Tax Assessor's Office. It's publicly available.
Q. And why was this important for your evaluation?
A. This is just another way of showing the impacts of a facility on the local economy. IMPLAN does estimate tax revenues, but it's more accurate to get the actual figures from the taxing authorities.
Q. Dr. Richard, to your knowledge is the Powerton Generating Station continuing to operate?
A. Yes, to my knowledge.
Q. And to your knowledge it continues to have employees?
A. Yes.
Q. And so as it continues to employ people, will the station still create economic and labor impacts?
A. Yes.
Q. And if it continues to produce goods or

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

services, what type of value added economic impact will it have?
A. As long as it continues to operate at a similar level as it did in 2020, the total economic impacts will be similar.
Q. Thank you.

I want to turn to the next -- well, no.
We'll stay on this page. We have -- we're moving down to the next section of your report under Joliet Generating Station and Will County Generating Station.

I believe you touched upon this, but just to make the record clear, why did you group these two stations together?
A. A couple of reasons. First, they are very close. They're only 12 miles apart, and so it's not really possible to disentangle the impacts. Also, the IMPLAN model -- regions are county based, so we can't to subcounty analysis. So it just made sense to combine them and look at the overall -the regions would have been the same for the two stations, so we just -- I just combined them and did the analysis on the two combined.
Q. And what were -- what was the region for

Electronic Filing: Received, Clerk's Office 06/22/2023
June 15, 2023
the Joliet station and the Will County station? If you look at the second paragraph, last or second to last sentence in the paragraph under Joliet --
A. Oh, yes. Will, Kendall, Cook and DuPage Counties.
Q. Thank you.
A. Yeah. Here's another example where they have some employees out of state. Five lived in Indiana, so we exclude those.

HEARING OFFICER HALLORAN: Speak up, Dr. Richard.

THE WITNESS: Yes.
HEARING OFFICER HALLORAN: Thank you. BY MS. GALE:
Q. And we turn to the next page, and we'll look at Table 5 of your report. What is this depicting here?
A. Yeah. Just like the other tables, this is the summary of economic activities for the combined generating stations of Joliet and Will County depicting employment labor income, value added and output.
Q. And what were the total employees at the

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

two stations when you created your report?
A. 107 direct employees.
Q. So what were the total employment of those 107 employees upon the region?
A. 435 .
Q. And the next column, again I see you have an asteric there, and I think you touched upon it. What does that asterics mean?
A. Again, some of the employees live outside the region of the four -- in this case outside of that four-county region, and so we -- I excluded those from the induced impacts.
Q. And so of the two generating stations, what was the labor -- what was the direct labor income of the two generating stations together?
A. About 17 and a half million dollars.
Q. And what was the total labor income of the two stations together upon the entire region?
A. Total labor income was about $\$ 39.8$ million.
Q. And looking at the next column under value added, what was the direct value added of the employees of the two stations?
A. About $\$ 62.7$ million.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

Q. And what was the total value added of those two stations upon the entire region?
A. About $\$ 99.2$ million.
Q. And, finally, similarly under the output, what was the direct output of the employees of the two stations upon the region?
A. $\$ 141.4$ million with just over $\$ 200$ million in total output.
Q. And again you have on the same page a local tax revenue estimates. What is this showing?
A. These are the taxes paid by each facility to the various local property taxing bodies. Again, obtained from the local tax assessor's office.
Q. And, similarly, why was this important to your opinion?
A. It's another way of showing its importance in the local economy.
Q. So to your understanding do you know the status of the Will County station?
A. I believe Will County has ceased producing power.
Q. But what is your understanding of the future of the Will County station?

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

A. I understand that it will be converted to a power storage facility.
Q. And assuming it continues operating as a power storage facility, what is your understanding of that -- whether they'll employee people there?
A. They will still need to employ people to run the facility, yes.
Q. So and as it continues to operate as a power storage facility with employees, what impact or what type of impact will that create on the employment and labor economic impact on the regions?
A. I can't speak to what the numbers will be. I haven't done that analysis. But as long as they continue to operate, have revenue, have employees, they will have some level of economic impact.
Q. And similarly with Joliet 29 , if it continues to operate and have employees, what type of economic impact will it have?
A. If it continues to operate at a similar level to what it was in 2020, it will have a similar economic impact going forward.
Q. I'm gonna turn to the Waukegan station. Here we're looking at the Waukegan Generating

[^6]Station.
And what do you describe here on Page 5 of your report?
A. Yeah. Similar to the others, this is the economic impacts of the Waukegan Generating Station on its local region. In this case the local region was the Lake, Cook and McHenry Counties.
Q. Thank you.

Let's turn to the next page. Looking at Table 5, what is depicted in -- I'm sorry, not Table 5. Table 8, what is depicted in Table 8?
A. Scroll up one page. Yeah.

So similar to the other tables, the employment labor income, value added and output impacts of the Waukegan Generating Station on that three-county region.
Q. I actually want to go back. I think you said earlier that the region was Lake, Cook and McHenry County. If you look in the top paragraph, how many employees lived out of state?
A. 28 out of the 83 lived in Wisconsin.
Q. And so were they included in your analysis here?
A. Not the Wisconsin employees. If you

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

compare this table to some of the others, the induced labor income impacts is considerably smaller relative to the other numbers, and so that's where you really see the impacts of those employees being excluded from the induced impacts.
Q. But if they're excluded from the induced impacts in the state of Illinois, do they have any impacts?
A. They have impacts on Wisconsin, yes. My analysis was limited to Illinois, so yeah. And all of these activities probably have nationwide impacts as, you know, people go on vacations and things and spend their money in other states. So we just focus -- I just focused on Illinois, the impacts on Illinois.
Q. Back to Table 8, when you wrote this opinion how many employees were working at the Waukegan Generating Station?
A. 83 employees.
Q. And in Table 8, what was the total employment impact of the Waukegan station?
A. 299.
Q. And the next column under labor income, what was the direct labor income of the employees

[^7]at the Waukegan station?
A. $\$ 14.1$ million.
Q. And what was the total labor income of the Waukegan station?
A. $\$ 28.6$ million.
Q. And then under value added, what was the direct value added of the Waukegan employees in the Waukegan -- in the region of the Waukegan station?
A. $\$ 56.7$ million.
Q. And what was the total value added?
A. $\$ 79.3$ million.
Q. And, finally, what was the output of the Waukegan employees in the Waukegan region?
A. Output of the facility -- generating facility, almost $\$ 123.5$ million with a total output impact of $\$ 160.6$ million.
Q. Turning to the last page or, excuse me, the next page, what is the local tax revenue estimates?
A. They paid $\$ 560,000$ in property taxes in 2019.
Q. And, again, similar to the other stations, why was this important for your analysis?
A. It shows the impacts on the local
\[

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$
\]

governments as a result of the facility.
Q. And what was your understanding of the status of the Waukegan station today?
A. It has ceased operations as a coal-fired plant, and $I$ believe there are plans to also make that a power storage facility.
Q. And as a power storage facility, assume -which will have employees, what will the impacts be -- generally speaking, what will the impacts be of the employment and labor economic impacts of Waukegan station?
A. Depending on the level of employment, it will also have, you know, these multiplier effects in the local economy. So it will have some level of employment labor income and value added impact on the local economy depending on the level of employment.
Q. And are you -- well, you're aware that the Waukegan station still generates energy using peaker units?
A. Yes, there are --

```
(Reporter clarification.)
```

BY MS. GALE:
Q. I'm sorry. Finish your sentence.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

A. Yes. I'm aware that there are peaker units there.
Q. So it'll have -- peaker units --
A. Those -- the operation of those will have some level of economic impact as well.
Q. So in sum, what is your opinion of the Midwest Generation stations as it relates to economic impact statewide and for each of the regions?
A. I guess I just summarized the overall impacts. It generates hundreds of jobs in Illinois with millions of dollars of labor income and value added in the economy.
Q. Will those -- I mean, as employment numbers change, what'll happen?
A. If employment numbers -- if the economic activity changes, the overall economic impact changes. If there's fewer employees, there's fewer -- less labor income going into the economy. If there's more, there's more labor income.

MS. GALE: Mr. Hearing Officer, we are collecting correct copies of Exhibit 1801 to replace what we have in here. 1802, excuse me, sir, 1802, and they're on their way.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

Electronic Filing: Received, Clerk's Office 06/22/2023
June 15, 2023

I would move for the admission of the correct copy of Exhibit 1802, and we can wait for your ruling on that.

MS. BUGEL: We would like to reserve our objections until we see the copy.

HEARING OFFICER HALLORAN: Yeah. We have to kind of see what it --

MS. GALE: Yeah, that's fair.
HEARING OFFICER HALLORAN: So I assume you're finished with direct, Miss Gale.

MS. GALE: Yes.
HEARING OFFICER HALLORAN: Thank you.
Miss Bugel.
MS. BUGEL: We're ready.
HEARING OFFICER HALLORAN: Okay. Thank you.
You may start when you you're ready.
MS. BUGEL: Thank you.
CROSS-EXAMINATION

BY MS. BUGEL:
Q. Dr. Richard, I'm Faith Bugel representing Sierra Club. You and I met --
A. Yes.
Q. -- by Zoom in a deposition.
A. Yes.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

Q. So we talked a little bit about other projects that you did in your deposition. I just want to ask a couple questions.

You had analyzed the economic impact of a nuclear energy project once, correct?
A. Yes.
Q. But you have not analyzed the economic impact of any existing coal-fired power plant prior to this report, correct?
A. I've analyzed the potential economic impact of a proposed generating facility.
Q. And was that just one project that you did on a proposed plant?
A. Yes. That was -- there was just one project on that plant. I've done dozens of economic impact studies over my career, so . . .
Q. But never before on existing coal-fired power plants, correct?
A. Not on that type of activity specifically.
Q. And when you say that type of activity specifically, you're referring to existing coal-fired power plants?
A. Correct. Yes.
Q. And I just want to run through the data

[^8]inputs into your analysis.
Your report is based on data for Midwest Generation's employment numbers, correct?
A. Correct.
Q. And it's also based on data for Midwest Generation's payroll numbers, correct?
A. Correct.
Q. And by payroll numbers, I'm referring to how much they pay their employees.
A. Including benefits, yes.
Q. Including benefits.
A. Correct. Yes.
Q. And your report is based on data for the value of the power produced by the Midwest Generation plants, correct?
A. That would be the estimate of the output.
Q. And your report is also based on the residential information for the employees, correct?
A. I was provided with the ZIP code of where each employee lives, correct. Yes.
Q. And then when you use the IMPLAN modeling application, is it accurate to say that there's data embedded in that IMPLAN modeling?
A. Yes.
\[

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$
\]

Q. And do those five categories we just covered cover all the data that went into your analysis?
A. That $I$ entered into or that is included in the model?
Q. Both. Does that --
A. Well, the model has data included in it, things like expenditure patterns of households and businesses that are embedded in the model that I don't need to enter.
Q. Right.
A. Yeah.
Q. So $I$ just want to understand that between the questions I asked you about what you put in plus what is in the model --
A. Yeah.
Q. -- that is the universe of data that went into the whole analysis, correct?
A. Yes.
Q. And with the exception of what is embedded in the modeling application, all of the inputs -all of the other inputs came from Midwest Generation, correct?
A. Correct.

[^9]Q. And you didn't attempt to gather this information from anywhere else, correct?
A. No.
Q. And you didn't consider any other data sources, correct?
A. Correct.
Q. And you didn't independently verify any of the information that Midwest Gen gave you?
A. No, I did not.
Q. And can you tell me, is it possible for an economic impact analysis to include more impacts in terms of -- let me rephrase that question.

Is it possible for an economic impact analysis to include more than just these impacts that we've discussed or that -- strike that.

Okay. Let me refer you to a page number, Page 2 of your report, second paragraph. And what I'm trying to understand is whether it's possible for an economic impact analysis to include more impacts than just the value of the product, employment and personal income.
A. You mean more metrics?
Q. Yes.
A. I guess I'm not sure what other metrics

[^10]you would be looking at. Some models will estimate things like migration. Say you're evaluating a proposed facility, a big, new proposed facility, it will estimate how many people will move into the region to take the jobs there. So that might be an example.
Q. I think in your direct testimony you may have mentioned another example which is if people go on vacation and go outside the region?
A. Correct.
Q. Then they take their money elsewhere?
A. Yeah.
Q. And that's something that wasn't included in your model?
A. Expenditure patterns include those types of expenditures. So the model estimates -- you know, it's impossible to estimate what an individual -- what they're gonna spend, but it's quite easy to estimate what a thousand people are gonna spend in aggregate.

And so they use that type of data, consumer expenditure survey data, where they know on average people are gonna spend 5 percent of their income going on vacations outside of their

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

region. And so the model takes that into account, and that money leaves the region and is not part of the impacts of the local economy.
Q. And do you recall in your deposition you and I had a conversation about externalities?
A. Yes.
Q. Do you have an understanding of

## externalities?

A. In basic terms, yes.
Q. What's your understanding?
A. It might be impacts that are not -- that a facility is not directly, say, compensated for or charged for. So that -- I don't know. Maybe an example is a damn that's built for power generation. Some externalities might be, well, it harms fisheries, but it also provides recreational opportunities for boaters and things, so -- but the damn does not pay or receive for those benefits and costs.
Q. And externalities can include positive

## things?

A. Correct.
Q. Yes?
A. Yes.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

Q. And the -- one of the examples that I've always used to define it is some somebody buys flowers, plants them in front of their house, but everybody walking by gets the benefit of seeing the flowers --
A. Yeah.
Q. -- right?
A. Yes.
Q. So that's a good example of externalities?
A. Yes. They don't pay to enjoy the flowers.
Q. Just to confirm, your analysis -- in your analysis economic activity is measured by dollars, correct?
A. Correct. Correct.
Q. And it included payroll?
A. Yes.
Q. And it included the value of the power produced?
A. Correct.
Q. And the value of the jobs supported in the region?
A. Correct.
Q. And all those are measured in dollars?
A. Yes.

[^11]Q. And externalities are -- is it accurate to say externalities are harder to measure in dollars?
A. Yes.
Q. But it's not impossible to measure
externalities in dollars, correct?
MS. GALE: Objection, speculative and vague.
HEARING OFFICER HALLORAN: Overruled. He can answer if he's able.

THE WITNESS: I'm generally aware of ways to try to estimate the value of externalities. BY MS. BUGEL:
Q. And in the examples we were talking about, externalities can have a positive effect like the flowers, correct?
A. Yes.
Q. And externalities can also have a negative effect, and I think you mentioned a damn that might impact fisheries --
A. Yes.
Q. -- correct?

And economic value can be positive, right?
A. Yes.
Q. But economic value can also be negative, right?


[^12]Dr. Richard, but you may proceed.
You may answer, Dr. Richard, if you're able.

THE WITNESS: We're getting outside of my area of expertise. And maybe this is similar to externalities in that -- as long as there is some potable water available to a community -- again, I don't know if we're talking about all of the water in the region or just a portion of the water in the region. Scarcity plays into this as well, so . . . BY MS. BUGEL:
Q. Would you agree that potable water being rendered unusable is an externality?
A. Yes. Excuse me, yes.
Q. And if -- you know, this is a hypothetical, but if you had a community where there were insufficient potable water and they had to buy drinking water from elsewhere, that's an example of how potable water -- the value of potable water could be quantified?

MS. GALE: Mr. Hearing Officer, I'm gonna object again. He just said we're going outside his expert opinion, and this is beyond the scope of my direct.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

HEARING OFFICER HALLORAN: Yeah. I'm not real concerned. I usually give both parties a lot of latitude. If he can answer, he's able, but if it's beyond his scope of expertise, then Dr. Richard can say so. But how much more are you gonna be asking these questions?

MS. BUGEL: This is the last one on this line.
HEARING OFFICER HALLORAN: Okay. Dr. Richard, if you're able to answer, if you remember the question.

THE WITNESS: Could you repeat, please?
MS. BUGEL: Can I have the court reporter read it back?

HEARING OFFICER HALLORAN: Sure. Thank you. (WHEREUPON, the record was read as requested.)

THE WITNESS: Presumably there's a cost to bringing that water in from outside of the region. If they didn't have enough water, then, yeah, that would be a cost. Yes.

BY MS. BUGEL:
Q. And did your report consider any impacts caused by groundwater contamination found at the Powerton Generating Station?

[^13]A. It did not. There were no dollar flows.
Q. And did your report consider any of the impacts caused by groundwater contamination found at the Waukegan station?
A. It did not.
Q. And did your report consider any impacts caused by groundwater contamination found at the Will County Generating Station?
A. It did not. Again, there was no flows of dollars.
Q. And did your report consider any impacts caused by groundwater contamination found at the Joliet 29 Generating Station?
A. It did not.
Q. And I'd like to turn to Page 1 of your report, and I am looking at the second paragraph and the third sentence. Your report here says, the study will focus on the direct, indirect and induced impacts which result from the operations of the generating stations.

Did I read that correctly?
A. Yes.
Q. And are you familiar with coal ash ponds at all?

[^14]A. Generally, yes.
Q. Can you tell me what your understanding of a coal ash pond is?
A. It's a place to store the coal ash that results from the generation of power.
Q. And looking back at this sentence here, it finishes with the operations of generating stations. Do the operations of generating stations include the operations of coal ash ponds?
A. Yes.
Q. And do the operations of generating stations include the maintenance of coal ash ponds?
A. Yes.
Q. So if a coal ash pond at a generating station were to contaminate groundwater, would that be an indirect impact of the operation of the generating station?

MS. GALE: Objection, beyond the scope of my direct and outside his expertise.

HEARING OFFICER HALLORAN: Well, he hasn't said it was outside his expertise yet, so that's speculation, but, yeah.

A lot of this stuff is outside direct, Miss Bugel. You know, do you have a response?

[^15]MS. BUGEL: Yes. The report and the direct is all about the operations of these stations and what is indirect, induced and direct impacts. I am trying to find out what falls within the category -- the categories that he used.

MS. GALE: May I respond?
HEARING OFFICER HALLORAN: Yes, you may.
MS. GALE: His report as he explained quite clearly is about the economy value of the operations of these generation stations. He responded to questions earlier that I rely upon dollar signs. Her questions are unrelated to my direct which is about the employment numbers and the dollar signs.

HEARING OFFICER HALLORAN: Yeah.
You know, I gave you latitude, and it seems like this is far beyond direct, and with each question it gets farther beyond direct.

MS. BUGEL: Okay. I can move on.
HEARING OFFICER HALLORAN: All right. Thank you, Miss Bugel. BY MS. BUGEL:
Q. So in your opinion can negative externalities detract from the total value of a

[^16]facility that is subject to an economic impact analysis?
A. Again, externalities, there are not dollar flows associated with them. My analysis is based on the dollar flows that occur related to the facilities.
Q. If externalities were quantified in terms of dollars, could they be -- could they detract from the total value of a facility that is subject to an economic impact analysis?
A. I think it's a separate issue. Again, there are no dollar flows from that. It's a different way of looking at value.
Q. Okay. Moving on, $I$ want to talk a little bit specifically -- more specifically about the actual stations.

So just to confirm, your analysis for the Waukegan station for your report took place prior to April of 2021, correct?
A. Correct.
Q. And you have not updated your analysis of Waukegan since then, correct?
A. Correct.
Q. And you were aware that the -- at the time

[^17]of writing your report, you were aware that the operations at the Waukegan plant were going to change, correct?
A. I don't recall being aware of that at the time.
Q. And but now you're aware that the Waukegan plant ceased operations of its coal-fired units in 2022, correct?
A. Correct.
Q. And currently it only operates peaker units. Are you aware of that?
A. Yes.
Q. Are you aware that retiring the coal units impacted the number of people employed at Waukegan?
A. I'm aware that that's possible, but I'm not aware of the scale of that.
Q. So your analysis doesn't account for the coal units retiring, correct?
A. Correct.
Q. And reduced employment at Waukegan would have an impact on payroll, correct?
A. If employment is reduced, payroll is reduced, yes.
Q. And reduced payroll at Waukegan would
\[

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$
\]

affect the amount of money directed to the local economy, correct?
A. Correct.
Q. And changes in the amount of money directed to the local economy would affect the amount of money that supports jobs outside the plant, correct?
A. Correct.
Q. And basically reduced employment at Waukegan would result in fewer jobs outside the plant supported, correct?
A. Correct.
Q. Also, if there is reduced production from a coal-fired power plant, is there reduced value added?
A. Yes.
Q. And I want to look at Table 2 in your report. So looking at the upper left box where direct and employment intersect, the figure that appears there is 113, correct?

Oh, I'm sorry. I'm looking at Table 3.
Well, that's -- Table 2 is on my computer. Okay. That's better.

Same Table 2, same box, there's a place

[^18]where direct and employment intersect. And the number that appears there is 303, right?
A. Correct.
Q. Okay. And if Midwest Gen retires coal units and that causes a reduced employment at that plant, the number that appears in this box would be incorrect, right?
A. That represents the employment as of 2020. So if it's changed since then, that number changed.
Q. And if employment is reduced since 2020, that number would also be reduced, correct?
A. Yes.
Q. And, similarly, if that number 303 is reduced, then labor income in the next box to the right would be reduced as well, correct?
A. Yeah. If average pay levels remain the same for the fewer number of employees, yes, labor income would be reduced.
Q. And if retirement affects production, then value added would similarly be affected, correct?
A. Correct.
Q. And then that final box of output, direct output, if all those other numbers are reduced, that final number --
\[

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$
\]

A. Correct. They're all --
(Reporter clarification.)
THE WITNESS: All the numbers are related. So typically if one goes down, they all go down. BY MS. BUGEL:
Q. And do you have an understanding of whether the retirement of coal units at Waukegan would affect local property tax revenues?

MS. GALE: Objection, outside the scope of his expertise.

HEARING OFFICER HALLORAN: Miss Bugel.
MS. BUGEL: He has property tax in his report.
HEARING OFFICER HALLORAN: I agree. Overruled.
THE WITNESS: Property taxes are based on the value that the local tax assessor puts on the facility. So if the tax assessor changes the value put on the property, then the property taxes change.

BY MS. BUGEL:
Q. I want to turn to Will County now. And, similarly, your analysis for the Will County plant took place prior to April of 2021, correct?
A. Correct.

MS. GALE: I object to the extent that his

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

analysis was for both plants at the same time, so mischaracterizes his analysis.

HEARING OFFICER HALLORAN: Miss Bugel.
MS. BUGEL: I believe that in the report they're put together, but the actual analysis takes figures from the individual plant. The inputs are figures from the individual plant.

HEARING OFFICER HALLORAN: I'm sorry to do this to you. Could you read the initial question back from Miss Bugel?
(WHEREUPON, the record was read as requested.)

HEARING OFFICER HALLORAN: I think it's a legitimate question. Overruled. You may answer, sir.

THE WITNESS: Yes, this was as of 2020. BY MS. BUGEL:
Q. And I'll make my question about the inputs, just to be clear.

You have not updated the inputs for the Will County plant since April of 2021, correct?
A. Correct.
Q. And are you aware that the operations at the Will County plant changed since April of $2021 ?$

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

A. Yes.
Q. And you're aware that Will County ceased operations of its one remaining coal-fired unit in 2022?
A. Yes.
Q. And now the plant is no longer operating?

MS. GALE: Objection, mischaracterizes facts in evidence.

HEARING OFFICER HALLORAN: Miss Bugel.
MS. BUGEL: I'll rephrase.
HEARING OFFICER HALLORAN: Thank you. BY MS. BUGEL:
Q. And now coal-fired operations at the plant no longer continue?
A. Yes.
Q. And are you aware that retiring the coal unit had an impact on the number of people employed at Will County?
A. I'm aware that it could have, but I'm not aware of the extent.
Q. And the analysis in your report does not account for the Will County coal unit retiring, correct?
A. Correct.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

Q. And I want to turn to Page 2 of your report, Table 1. The entry for Will County -thank you. I've got it right here. Thanks.

The entry for Will County that says 53, does that reflect current Will County employment?
A. That was as of 2020.
Q. And I think I skipped this for Waukegan. I just want to look up one cell.

Looking at the entry for Waukegan that says 83 , that doesn't affect current employment at Waukegan, correct?
A. That was employment as of 2020 .
Q. And reduced employment at Will County would have an impact on payroll?
A. Correct. If average payroll stayed the same, yes. Fewer jobs, lower payroll, yes.
Q. And if payroll were reduced, that would affect the amount of money directed to the local economy, correct?
A. Correct.
Q. And changes in the amount of money directed to the local economy would affect the amount of money that supports jobs outside the plant, correct?

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

A. Correct.
Q. And reduced -- so reduced employment at the Will County plant would result in fewer jobs outside the station supported, correct?
A. Correct.
Q. And reduced production from the Will County plant would result in reduced value added, correct?
A. Yes.
Q. And if there were no production from the Will County plant, there would be no value added, correct?
A. If there's no power production, there's no value added from power production. Yes.
Q. And I just want to ask you, do you have an understanding of whether the Will County retirement of its coal units would have an effect on local property tax revenues?
A. Again, that -- it's up to the tax assessor to determine the value for tax purposes.
Q. And turning to Joliet, the inputs for the Joliet plant for your report were based on data provided prior to April of 2021, correct?
A. Correct.

[^19]Q. And are you aware that operations at the Joliet plant are potentially changing in September of 2023?
A. I don't know specifics. I think maybe I've heard something, but not --
Q. What have you heard?
A. I don't -- about Joliet?
Q. Yeah.
A. I don't recall any specifics about that.
Q. If units at the Joliet plant retire in 2021 -- I'm sorry. Strike that.

If units at the Joliet plant retire in 2023, do you have an understanding of whether that will impact employment at the station?
A. If -- yeah. If economic activity changes, presumably employment will change.
Q. And your analysis -- let me rephrase that.

Your inputs for Joliet don't account for any potential upcoming retirements at the plant, correct?
A. Correct.
Q. And if retirement of units at the Joliet plant led to no production from the plant, there would be no value added, correct?

[^20]A. If there's no production of electricity, there's no value added from production of electricity.
Q. Okay. And I just want to turn to Table 1 again, Page 2. The entry for Joliet of 54 employees, does that account for any upcoming unit retirements at the plant?
A. No. It's labeled as 2020, so it's employment as of 2020.
Q. And I want to look at Table 2 and the number -- the total number of 303. Does that represent 2023 Midwest Gen employment numbers?
A. It does not.
Q. And so below the entry 303, there's an entry for indirect of 488. And can you refresh my memory of what indirect represents?
A. Indirect jobs are those that are created by the facility's spending in the regional economy for their inputs.
Q. Okay. So if Midwest Generation retired units, that would lead to reduced purchasing of inputs?

MS. GALE: Objection, asked and answered. I think we've gone through this four times now.

[^21]HEARING OFFICER HALLORAN: Sustained.
BY MS. BUGEL:
Q. Okay. So if there's reduced purchasing of inputs, would that affect the employment numbers in the indirect box?

MS. GALE: Same objection, asked and answered.
HEARING OFFICER HALLORAN: Miss Bugel.
MS. BUGEL: I honestly think that some of these are phrased slightly differently.

HEARING OFFICER HALLORAN: Overruled.
You may answer if you're able to,
Dr. Richard.
THE WITNESS: Could you repeat the question, please?

BY MS. BUGEL:
Q. So my question is whether -- if there is reduced purchasing of inputs, that would affect the employment number in the indirect box on Table 2, correct?

MS. GALE: Same objection, asked and answered.
HEARING OFFICER HALLORAN: Overruled.
THE WITNESS: Yes. If the facilities are spending less in the local economy, the indirect impacts would be reduced.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

BY MS. BUGEL:
Q. And can you tell me what does induced represent?
A. That's the effects of the employees spending their income in the regional economy.
Q. And if retirement of Midwest Generation units led to less employment, then the number 514 for induced employment would not be correct, right?

MS. GALE: Objection, asked and answered. We've gone through all four stations on this.

HEARING OFFICER HALLORAN: Yeah. Miss Bugel, you've been asking these type of questions for quite sometime, and you might phrase them a little differently, but it's the same question.

MS. BUGEL: Hearing Officer, it's not the same question. I asked it individually for the stations, but this chart puts everything together.

HEARING OFFICER HALLORAN: Well, it is.
I disagree, but you may answer
Dr. Richard, if you can.
THE WITNESS: If there's less labor income from employment at the facility, the induced impacts will be reduced.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

BY MS. BUGEL:
Q. Okay. And presumably that would have an effect on the total?
A. That's just addition, yes. If any number is lower, then the total is lower.
Q. And how would that affect the multiplier that appears in this table?
A. It depends. So impacts have different -the indirect impacts are somewhat different from the induced impacts. So it's possible the multiplier could even go up if the employment numbers go down, so . . .
Q. And Miss Gale asked you about the future of Will County. Do you recall that?
A. I believe so, yes.
Q. And you two talked about power storage at Will County?
A. Yes.
Q. And how presumably power storage will lead to employment at Will County?
A. Yes.
Q. I just want to establish, you don't know the employment figures for future power storage at Will County, correct?

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

A. Correct.
Q. And you said presumably that would lead to some level of economic activity, I'm sorry, economic impact?
A. Yes.
Q. But you can't quantify that, can you?
A. Not here today.
Q. And same question for Joliet, if
employment continues there, presumably -- well, let me strike that question and rephrase it.

You don't know the future numbers for employment at Joliet, do you?

MS. GALE: Objection, asked and answered. This is another question. She just went through and asked if the numbers go down, the numbers will go down, and now we're on the same topic basically.

MS. BUGEL: This is a different topic. This is specific to the questions that Ms. Gale talked about with Dr. Richard, and just Ms. Gale talked about the potential for future employment. I just want to establish that Dr. Richard actually cannot quantify the future employment at Joliet.

HEARING OFFICER HALLORAN: Okay. I've heard it a number of times, but Dr. Richard, if you can
answer.
THE WITNESS: I don't have the information to quantify the future impacts. BY MS. BUGEL:
Q. And turning to Waukegan, Ms. Gale talked to you about power storage at Waukegan, correct?
A. Correct.
Q. And you don't know the labor numbers for future employment at Waukegan under a power storage scenario, do you?
A. I do not.
Q. And you can't quantify the level of economic impact for a power storage scenario, can you?
A. I cannot.
Q. And you -- your overall opinion was that Midwest Generation generates hundreds of jobs in the region, correct?
A. Correct.
Q. But those figures -- you cannot quantify those figures for 2023, can you?
A. These figures are as of 2020 .
Q. And your -- you also said there are millions of dollars of labor income that go into

[^22]the economy. You cannot quantify that for 2023, correct?
A. Again, those are 2020 figures. Yes.

MS. BUGEL: I have no further questions.
HEARING OFFICER HALLORAN: Thank you.
Miss Gale.
MS. BUGEL: Hearing Officer, I'm sorry, counsel interrupted me. I didn't confer with counsel. May I take a minute?

HEARING OFFICER HALLORAN: Okay. Sure. We can go off the record.
(WHEREUPON, a short recess was taken.)

HEARING OFFICER HALLORAN: We're back on the record, Rae. Thank you.

MS. GALE: Mr. Hearing Officer, I conferred with Miss Bugel. She let me do this. We have the proper copy of Dr. Richard's report. It's Exhibit 1802. I'll ask that everybody in their binder take out the copy in the binder and replace it with what I'm handing out to you now.

MS. BUGEL: Hearing Officer, I just have a few more questions.

HEARING OFFICER HALLORAN: Okay. Did Miss Gale
want to move that in?
MS. GALE: I was gonna wait until she was done.
HEARING OFFICER HALLORAN: Okay. Yes,
Miss Bugel. Go ahead.
BY MS. BUGEL:
Q. And, Dr. Richard, I know we talked at length about Table 2. I just have one clarifying question.

You do not add the columns together,
correct? Did you say that?
A. Add the columns?
Q. The columns.
A. No. Each column is added from top to bottom, so the total is the sum.
Q. But as you go -- you wouldn't add labor income plus value added --
A. No.
Q. -- plus output?
A. No.
Q. Can you explain why not?
A. Cause each is a component of the next.

Labor income is a component of output -- of value added. Value added is a component of output. It's actually a common mistake you see in this type of
analysis, but it's not appropriate.
Q. Thank you. That's very helpful.
A. Yeah.
Q. And I want to ask you, if Midwest Generation were to engage in coal ash cleanup activities at the facilities and had to hire employees, that is something that could be quantified, right?
A. Yes.
Q. And hiring employees would be a form of economic activity?
A. Yes.
Q. And presumably if Midwest Gen had to procure equipment to carry out cleanup, that would also be a form of economic activity?
A. Yes.
Q. And those economic activities attributable to cleanup would also have indirect and induced impacts, correct?
A. Yes.
Q. And that -- and you did not attempt to estimate the economic impact of any cleanup activities, right?
A. I did not.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

Q. And do you have any opinion on the economic value of coal ash located at the plants?
A. Opinion on the value of coal ash, I understand it can be used for other uses, sold for other uses, but I don't have -- I can't quantify that.

MS. BUGEL: Okay. That's it. Thank you.
HEARING OFFICER HALLORAN: Thank you, Miss Bugel.

Miss Gale, redirect.
MS. GALE: Mr. Hearing Officer, can I get five minutes off the record, please?

HEARING OFFICER HALLORAN: Sure. Off the record five minutes.
(WHEREUPON, a short recess was taken.)

HEARING OFFICER HALLORAN: We're black on the record. I think Miss Gale's ready to do her redirect. Thank you.

REDIRECT EXAMINATION
BY MS. GALE:
Q. Dr. Richard, Miss Bugel asked you a few questions about the data you used for your IMPLAN modeling and your analysis.

[^23]And you received that data from where?
A. From Midwest Generation.
Q. In your expertise when you do the dozens of IMPLAN models, where do you typically receive the data from?
A. Either -- if it's an existing operating facility, from the company itself. Sometimes they're for potential projects, and so we rely on estimates of employment and payroll from the company that's going to build the facility.
Q. Is it acceptable in your field of expertise to receive data from the companies?
A. Yes.
Q. And I want you to turn to Page 6 of your report, MWG 13-15 underscore 82258.

Where else did you receive data from?
A. From the tax assessor's office in the counties where the facilities are located.
Q. So you didn't just receive data from Midwest Generation, right?

MS. BUGEL: Objection, leading. BY MS. GALE:
Q. What other areas did you receive data from?

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

A. Data on employment and payroll came from Midwest Generation. The tax payment data came from tax assessors of the counties where the facilities are located, publicly available data.
Q. And Miss Bugel asked you about your specific analysis of a coal plant.

Do you recall that testimony?
A. Yes.
Q. And I believe you said you had done one for a potential plant, right?
A. It was either a coal or gas-fired plant.
Q. When you do an IMPLAN model, what kind of industries does the IMPLAN model can it analyze?
A. So the model is industry specific. There are over 500 industries available in the model. So a power plant that has $\$ 50$ million in revenue is gonna have different impacts than, say, a Walmart with $\$ 50$ million in revenue.

The employment levels are gonna be different. The indirect induced impacts are gonna be different. So the model has industry specific data that allows you to analyze the impacts of the specific industry.
Q. And as part of your training as for the

[^24]IMPLAN model and your experience using dozens -using the model, does the specific industry make any difference to your analysis --
A. Yes.
Q. -- for --
A. It can make tremendous difference.
Q. And --
A. Purchasing patterns of different types of businesses are very different. Sort of sector, for example, say a law firm, primarily labor, their costs are primary labor. Something like a power plant, of course they're buying fuel. They're buying more technical maintenance kinds of things. And so, yes, businesses in different industries can have very different impacts on the local economy.
Q. And what industry did you input here?
A. This is power generation from coal or gas.
Q. And by inputting that type of industry in the IMPLAN model, does that impact your ability to do this analysis?
A. I think it makes it more accurate than just some sort of generic analysis.
Q. Miss Bugel asked you about externalities.

Do you recall that discussion?

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

A. Yes.
Q. And you discussed positive and negative externalities, and you used the example of a damn.

Do you recall that?
A. Yes.
Q. So in your -- you know, could an externality also be heavy truck traffic?
A. Could be, yes.
Q. And do externalities -- could that also consider the value of renewable energy?

MS. BUGEL: Objection to the leading questions. BY MS. GALE:
Q. Is renewable energy an externality?
A. If you're replacing coal-based energy with renewal, that's not an externality. That's a replacement of activity.
Q. Is there value to that?
A. Yes. There's economic activity associated with all types of energy creation, generation.
Q. And we touched upon this, but for each of the stations that are subject here, you understand that -- and I believe you sat yesterday through part of Miss Shealey's testimony.

Do you recall that?

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$



[^25]have activity just as the current activity does.
HEARING OFFICER HALLORAN: Speak up, please.
THE WITNESS: Yes.
BY MS. GALE:
Q. And your analysis analyzes jobs -employments of Midwest Generation, right?
A. Correct.
Q. What about construction jobs, are those -what happens with those in your analysis?
A. So I would analyze construction activity separately cause it's a different sector of the economy. So if they're -- I don't -- just picking a number out of the -- if there's a $\$ 10$ million construction project, that would be a separate analysis.
Q. And so in that separate analysis, if that -- let's assume Midwest Generation employs -not employs, excuse me, engages construction companies?
A. Yes.
Q. Would that have an economic value?
A. Yes.
Q. And then you were asked a number of questions -- oh, Miss Bugel asked you about your
\[

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$
\]

current -- whether you had a current analysis, and I believe you stated that today I could not, but I want to clarify.

Why could you not do that today?
A. Because I don't have the data available here as I sit. If $I$ was provided with the data, I could do it, yes.
Q. And then Miss Bugel asked you a number of questions about each station, but $I$ want to focus on Table 3 or, excuse me, Table 2 which is the statewide. So Miss Bugel's questions focused on the negative. I want to focus on the positive.

If the statewide or for any of these stations employment numbers go up, what happens to labor income?
A. If pay levels on average stay the same, more employees means more payroll.
Q. Similar question, if Midwest Gen employs more people then was reflected in Table 2 that's from 2020, what happens to value added?
A. If there's more economic activity, then there's more value added.
Q. And same question under -- for Table 2 if Midwest Generation employs more people from 2020,

[^26]
## what happens to output?

A. So I would look at the opposite. If there's more output, it results in more employment, but they are related, yes. So if one goes up, the other goes up.
Q. It's complicated.
A. Yes.

MS. GALE: Nothing further for now, Mr. Hearing Officer. I would before I go ask to move to admit the proper Exhibit 1802.

HEARING OFFICER HALLORAN: Miss Bugel.
MS. BUGEL: No objection.
HEARING OFFICER HALLORAN: Thank you. Exhibit 1802 is admitted, respondents.
(WHEREUPON, Exhibit No. 1802 was admitted into evidence.)

HEARING OFFICER HALLORAN: Miss Bugel, any recross?

MS. BUGEL: Let me confer.
I do not have any recross.
HEARING OFFICER HALLORAN: Thank you. You may step down, sir. We're off the record.
(WHEREUPON, a short recess was taken.)
(WHEREUPON, proceedings were had which are not herein
transcribed.)
HEARING OFFICER HALLORAN: We're back on the record. Good afternoon. It's approximately 1:03, 04, and I think we designated this time for a couple of public comments. And if they would approach and they can give their comment.

Good afternoon, sir. You can either stand or have a seat here.

THE WITNESS: I'll sit, if you don't mind.
HEARING OFFICER HALLORAN: Thank you. State your name for the court reporter.

MR. THORN: Yes, sir. My name is James Thorn, hello. I wanted to appreciate the opportunity to come here and speak with all you all. A little bit about myself, I want to let you know I'm married. I have five children, eight grandchildren. I'm a retired Chief Warrant Officer 3. I was a aviation safety officer in the service. I retired after 23 years and have been working for Midwest Generation for 15 years and moved up here from Alabama and have been a member or a member of the community for 16 years. And I appreciate the

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

opportunity to come and share some thoughts with you.

So there's three things I'd like to -points I'd like to make. First one is there's already a mechanism in place to address what to do with the coal ash ponds. The authority was granted to the Illinois EPA because its knowledge and expertise. Changing that process would be quite disruptive and would jeopardize existing environmental progress that's already been made and likely lead to things becoming handled by a case-by-case basis, thus risking this becoming a purely political process rather than one that's based on science and what's the best interest of the community and the environment.

Second, closing in place is far safer and more environmental friendly because the alternative of closuring by removal would subject the surrounding communities and potential others to unnecessary and excessive truck traffic. Right. I don't know if you've been around the area that I'm at. The truck traffic is not only very disruptive in day-to-day living neighboring communities, but also increases the risk of accidental coal release.

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

So if you think about it, worse case scenario, you got trucks driving down with coal and stuff. I was thinking about this last night. What if that truck hits a school bus. Ten, fifteen children get killed in a truck accident because we're transporting this CCR, this coal combustion residue. I think it's a horrible idea.

But not only that, $I$ am -- I am
flabbergasted and almost fed up with the trucks. When I moved to the area it wasn't anything like it is now, nothing. If it gets much worse, I'm packing up and leaving to another county cause I just cannot -- the risk on being on the road with all the trucks, I've got teenagers that are drivers, scares me to increase what is already out of control, but, anyway, third -- I think I said enough about that. I think you know where I stand on the trucks.

Third, what Midwest Generation is proposing is based on highly advanced scientifically proven technology. Outside from a few voices, the meeting the other day, I didn't even know there was anybody that had any concerns with it. I've worked there for 15 years. I don't

$$
\begin{gathered}
\text { L.A. Court Reporters, L.L.C. } \\
312-419-9292
\end{gathered}
$$

have any concerns. I got a huge family, a lot of family members that live in this community. I haven't heard one person say anything about being concerned about that. They know I've worked there for 15 years.

I personally believe that this -- you guys, the Board, should tell Midwest Gen to follow the new laws and let Illinois EPA do their job. That's pretty much it.

HEARING OFFICER HALLORAN: Thank you so much, sir.

MR. THORN: Thank you very much. Thank you.
HEARING OFFICER HALLORAN: Good afternoon, sir. How are you?

MR. WEHLING: I'm well. Thank you.
HEARING OFFICER HALLORAN: Thanks. You may have a seat or stand and just tell the court reporter your name and go ahead.

MR. WEHLING: Thank you. My name is Mark
 Lake County. I've been a resident there for over 20 years. I've also worked at the Waukegan Generating Station for 20 years. The station's provided an important service in keeping the lights
and air conditioning on for the communities.
I'd like to thank you for the opportunity to speak today. I'm here because I believe capping and closing the ash ponds at Waukegan station is the best solution for managing those impoundments. First, the design and subsequent monitoring of the ash ponds under our proposal will help ensure the ash in the pond does not contaminate the groundwater. The cap at the top and the liner at the bottom of the ponds will prevent rainwater from contacting and leaching through the ash. Subsequent groundwater monitoring will be performed for 25 years and will be able to detect if there is any issues, which aren't expected. If detected, they can be immediately addressed.

Second, what Midwest Generation proposes is already an approved method for managing coal ash ponds, and that's because it works. The science and history have proven this. Professional engineers and other scientists who are expert in the field say this. The IEPA was specifically tasked to oversee this sort of project and let the IEPA do their job.

Lastly, Midwest Generation is a big part
of the green energy future of Illinois. We believe it's important to help the state in that transition. That's why we are planning to use a portion of the Waukegan property to build a battery storage field. These batteries will be employed to help power renewables when the sun isn't shining and the wind isn't blowing. Battery storage is vital to the success of any renewable energy project.

The Board should let -- should tell
Midwest Generation to follow the new laws and let IEPA to do its job. Thank you again for inviting me to speak today.

HEARING OFFICER HALLORAN: Thank you, sir. Appreciate it. The Board will read it and take note.

MR. WEHLING: Thank you.
HEARING OFFICER HALLORAN: Thank you. Off the record.
(WHEREUPON, a short recess was taken.)
(WHEREUPON, proceedings were had
which were not herein
transcribed.)

STATE OF ILLINOIS )
) $S S$ :
COUNTY OF C O O K )

RAELENE STAMM being first duly sworn, on oath says that she is a court reporter doing business in the City of Chicago; and that she reported in shorthand the proceedings of said hearing, and that the foregoing is a true and correct transcript of her shorthand notes so taken as aforesaid, and contains the proceedings given at said hearing.

Certified Shorthand Reporter

| A | 30:1 32:14 34:6 | 34:23 39:1 40:3 | 6:22 57:21,24 | 42:23 55:16 |
| :---: | :---: | :---: | :---: | :---: |
| a.m 1:19 | 34:7,10 35:15 | 40:18 41:11,14 | 60:23 | 59:15 78:16 |
| ABEL 3:3 | 36:13 54:15 | 41:19 44:11,12 | area 20:23 47 | viation 80:19 |
| ability $74: 1$ | 55:20 60:7,11,14 | 52:2,4,10,17,21 | 81:21 82:10 | aware 35:18 36:1 |
| able 45:8 47:3 | 61:24 62:2 | 53:17 56:21 | areas 72:23 | 45:9 52:24 53:1 |
| 48:3,9 63:11 | 69:13,16,23,23 | 57:1,2,5 58:21 | ash 49:23 50:3,4,9 | 53:4,6,11,13,15 |
| 84:13 | 78:20,22 | 61:17 70:1 | 50:12,14 70:5 | 53:16 57:23 |
| above-entitled | addition 65: | 71:24 73:6 74 | 71:2,3 76:15 | 58:2,16,19,20 |
| 1:14 | additional 10:1,3 | 74:20,22 77:5,9 | 81:6 84:4,7,8,11 | 61:1 |
| aca | 10:11 11:7,12 | 77:15,16 78:1 | 84:17 | B |
| accepta | :24,24 19 | analyze $73: 13,28$ $77 \cdot 10$ | asked 40:14 62:23 |  |
| access 18:2 | ress 81:5 | 7:10 | :6,20 64:10,17 | bachelor's 8:23 |
| accident 82:5 |  |  | 71: | back 14:9 15:5 |
| account 43:1 | admission 13:5 | analyzes | 74:23 77:23,24 | 17:20 32:17 |
| 53:17 58:22 | 37:1 | analyzing 12:23 | 78:8 | 33:16 48:13 |
| 61:18 | admi | 13:2 | asking 48:5 64:13 | 0:6 57:9 68: |
| accurate 26:11 | admitte | ANDREW | assessor 56:15,16 | 80:4 |
| 39:22 45:1 | 13:12,14 79:1 | ANN 4:5 | 60:19 | background 8:20 |
| 74:21 | 79:16 | answer 45: | assessor's 25:23 | ased 11:1 19:5 |
| acr | advanced | 48:3,9 57:15 | 26:5 30:13 | 19:20 20:19,21 |
| activities 11:14 | affect 54:1,5 56:8 | 63:11 64:20 | 72:17 | 27:18 39:2,5,13 |
| 12:5 16:9 28:20 | 59:10,18,22 63:4 | 67:1 | assessors 73:3 | 3:17 52:4 |
| 33:11 70:6,17,23 | 63:17 65:6 | answered | Assis | 6:14 60:22 |
| activity 10:24 | aforesaid 86:11 | 63:6,20 64:10 | associated 52: | 81:14 82:20 |
| 11:1,4 12:23 | afternoon 80:5,9 | 66:13 | 75:18 76:12 | basic 43:9 |
| 15:16 16:1,24 | 83:13 | anybody 8 | assume 35:7 | sically |
| 17:2,4,5,5,16,18 | agencies 9:6 12:16 | anyway $82: 16$ | 77:17 | 66:16 |
| 18:17 21:20,20 | 12:17 | apart 27:16 | assuming 31 | asis 12:10 81: |
| 22:20 36:17 | aggregate 42:20 | APPEARANCES | 76:10,11,21,22 | batteries 85:5 |
| 38:19,20 44:12 | agree 47:12 56:13 | 2:1 3:1 | asteric 29:7 | attery 85:4,7 |
| 61:15 66:3 | ahead 69:4 83:18 | appears 14:1 | asterics 20:16, | becoming 81:11 |
| 70:11,15 75:16 | air 84:1 | 54:20 55:2, | 29:8 | 81:12 |
| 75:18 76:12,24 | Alabama 80:23 | 65:7 | attempt 4 | behalf 2:12,22 $3: 9$ |
| 77:1,1,10 78:21 | allows 73:22 | application 39:22 | 70:21 | 3:18 |
| actual 26:1,12 | alternative 81 | 40:21 | attorney 2:4 7:8 | belie |
| 52:16 57:5 | amount 54:1,4,6 | applied 8:22 | attributable 70:17 | 12:14 21:19 |
| add 21:13 69:9,11 | 59:18,21,23 | appreciate 80: | authorities 26:13 | 27:12 30:21 |
| 69:15 | analyses 23:14 | 80:24 85:15 | authority 81:6 | 5:5 57:4 65:1 |
| added 17:17 | analysis 9:5 10:5 | approach 80:8 | available 26:3,6 | $73: 975: 22$ 76:8 |
| 18:16 20:1 | 10:22 11:20 | appropriate 70:1 | 47:7 73:4,15 | 76:14 78:2 83:6 |
| 21:17,18,21 22:3 | 2:18 15:13 | approved 84:17 | 78:5 | 84:3 85:1 |
| 22:7,16 25:10,10 | 16:14 17:1 | approximately | AVELAR 4:3 | benefit 44:4 46:12 |
| 25:12 27:1 | 27:19,23 31:14 | 80:5 | Avenue 3: | benefits 18:4,5,15 |
| 28:22 29:22,22 | 32:22 33:10 | April 17:22 52:19 | average 18:9 | 21:5 39:10,11 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 43:18 | Bugel's 78:11 | 49:3,7,12 | closuring 81:18 | 77:19 |
| :---: | :---: | :---: | :---: | :---: |
| best 21:19 22:20 | build 72:10 85:4 | causes 55:5 | clothes 11:8 15:23 | company $11: 10$ |
| 81:14 84:5 | built 23:23 43:14 | CCR 82:6 | Club 1:3 2:13,16 | 12:9 72:7,10 |
| better 54:23 | Bureau 11:19,20 | ceased 30:21 35:4 | 2:23 37:21 | mpare 33:1 |
| beyond 10:4,12 | 11:20 | 53:7 58:2 | coal 49:23 50:3,4 | compensated |
| 47:23 48:4 | bus 82:4 | cell 59:8 | 50:9,12,14 53:13 | 43:12 |
| 50:18 51:17,18 | business 13:1,3 | Census 11:20 | 53:18 55:4 56:7 | Complainant 2:12 |
| big 42:3 84:24 | 15:17 16:5,8 | Center 1:4 9:2, | 58:16,22 60:17 | 2:22 3:9 |
| binder 8:9 13:17 | 17:3,6 86:7 | certain 76:15 | 70:5 71:2,3 73:6 | Complainants 1:7 |
| 68:20,20 | businesses 11:2 | certification 10 | 73:11 74:17 | complicated 79:6 |
| bit 38:1 52:15 | 11:22 16:10 | 10:12 | 81:6,24 82:2,6 | component 69:21 |
| 80:16 | 18:20 22:14,17 | certifications 10:1 | 84:17 | 69:22,23 |
| black 71:17 | 22:23 40:9 74:9 | Certified 1:16 | coal-based 75:14 | computer 54:22 |
| blocks 9:12 | 74:14 | 86:15 | coal-fired 35:4 | concerned 48:2 |
| blowing 85:7 | buy 11:8,8 16:6,7 | change 36:15 53:3 | 38:8,17,22 53:7 | 83:4 |
| Board 1:1 2:3 7: | 22:17,17 47:18 | 56:18 61:16 | 54:14 58:3,13 | concerns 82:23 |
| 83:7 85:10,15 | buying 15:18 17:6 | changed 55:9,9 | code 16:19 39:19 | 83:1 |
| boaters 43:17 | 19:21 22:4 23:1 | 57:24 | collecting 36:22 | conditioning 84:1 |
| bodies 30:12 | 24:19 74:12,13 | changes 36:17 | column 19:13 | confer 68:8 79:19 |
| bottom 69:14 | buys 15:22 44:2 | 54:4 56:16 | 20:14 21:16 | conferred 68:16 |
| 84:10 |  | 59:21 61:15 | 29:6,21 33:23 | confirm 9:9 44:11 |
| box 54:18,24 55:6 | C | changing 61: | 69:13 | 52:17 |
| 55:14,22 63:5,18 | C 86:3 | , | columns 69:9,11 | consider 41:4 46:7 |
| Bradley 1:15 7:2 | C | ch | 69:12 | 48:22 49:2,6,11 |
| break 14:13 | call 7:12 15 | chart 64:18 | combine | 75:10 |
| Brian 5:3 7:12,19 | 24 | Chicago 1:17 3:17 | combined 23:11 | considerably 33:2 |
| bringing 48:18 | called 7:20 | :12 86:7 | 27:22,23 28:20 | constructed 23:20 |
| Bugel 2:7 5:5 13:8 | 15:15 | Chief 80 | combustion 82:7 | construction 77:8 |
| 13:10 14:4,19,23 | cap 84:9 | children 80:18 | come 19:22 25:23 | 77:10,14,18 |
| 37:4,13,14,17,19 | capital 9:23 | . 5 | 8:16 81:1 | nsumer 42:22 |
| 37:20 45:11 | capping 84:3 | choose 10:1 | comes 20:7 | contacting 84:11 |
| 47:11 48:7,12,21 | capture 23:22,2 | CITIZENS 1: | commencing 1:18 | contains 86:11 |
| 50:24 51:1,19,21 | career 38:16 | City 86: | comment 4:3,4,5 | contaminate |
| 51:22 56:5,11,12 | Carolina 12:9 | clarificati | 80:8 | 0:15 84:8 |
| 56:19 57:3,4,10 | carry 70:14 | 18:22 35:22 | comments 80 | contamination |
| 57:17 58:9,10,12 | case 7:4 29:1 | 56:2 | common 69:24 | 48:23 49:3,7,12 |
| 63:2,7,8,15 64:1 | 32:6 82:1 | clarify 78:3 | commonly $12: 1$ | continue 12:10 |
| 64:12,16 65:1 | case-by | clarifying 69:7 | 12:19 15:15 | 14:4 31:15 |
| 66:17 67:4 68:4 | 81:12 | cleanup 70:5,1 | communities | 58:14 76:9 |
| 68:7,17,22 69:4 | categorie | 70:18,22 | 81:19,23 84: | continued 3:1 7:5 |
| 69:5 71:7,9,22 | 51:5 | clear 27:13 57:19 | community 47:7 | continues 26:17 |
| 72:21 73:5 | category 51:5 | clearly 51:9 | 47:16 80:24 | 26:20,24 27:3 |
| 74:23 75:11 | cause 1:14 69:2 | close 27:16 | 81:15 83:2 | 1:3,8,18,20 |
| 77:24 78:8 | 77:11 86:8 48 | closing 76:15,22 | commuting 23:21 | 66:9 76:10 |
| 79:11,12,17,19 | caused 46:8 48:23 | 81:16 84:4 | companies 72:12 | continuing 26:15 |

L.A. Court Reporters, L.L.C.

312-419-9292

| control 1:1 2:3 7:4 | 25:8 28:6 32:7 | 12:10 26:3 | 66:17 73:17,20 | Dr 5:3 7:12,15 8:2 |
| :---: | :---: | :---: | :---: | :---: |
| 82:16 | 72:18 73:3 | 38:24 39:2,5,13 | 73:21 74:8,9,14 | 13:6,7,16 16:24 |
| conversation 43:5 | country $12: 15$ | 39:23 40:2,7,17 | 74:15 77:11 | 26:14 28:12 |
| converted 31:1 | county 20:23 | 41:4 42:21,22 | differently 63:9 | 37:20 47:1,2 |
| Cook 28:5 32:7,18 | 23:11, 12,16,22 | 60:22 71:23 | 64:15 | 48:4,8 63:12 |
| copied 14:17 | 24:2 26:5 27:10 | 72:1,5,12,16,19 | direct 7:22 16:24 | 64:21 66:19,21 |
| copies 36:22 | 27:18 28:1,21 | 72:23 73:1,2,4 | 17:16,17 19:16 | 66:24 68:18 |
| copy $14: 5,9,11,20$ | 30:20,21,24 | 73:22 78:5,6 | 21:4 22:3,23 | 69:671:22 |
| 37:2,5 68:18,20 | 32:19 49:8 | day 1:18 82:22 | 24:18 25:6,10,12 | drinking 46:19 |
| correct 8:4 10:9 | 56:20,21 57:21 | day-to-day $81: 23$ | 29:2,14,22 30:5 | 47:18 |
| 14:13 18:4 24:5 | 57:24 58:2,18,22 | DC 3:7 | 33:24 34:7 | drivers 82:15 |
| 36:22 37:2 38:5 | 59:2,4,5,13 60:3 | decade 9:17 | 37:10 42:7 | driving 82:2 |
| 38:9,18,23 39:3 | 60:7,11,16 65:14 | define 44:2 | 47:24 49:18 | duly 7:18,20 86:5 |
| 39:4,6,7,12,15 | 65:17,20,24 | definitions 16:23 | 50:19,23 51:1 | DuPage 28:5 |
| 39:18,20 40:18 | 82:12 83:21 | degree 8:22,23 | 51:13,17,18 | DX 5:2 |
| 40:23,24 41:2,5 | 86:3 | 9:22 | 54:19 55:1,22 |  |
| 41:6 42:10 | couple 9:12 27:15 | DeKalb | directed 54:1,5 | E |
| 43:22 44:13,14 | 38:3 80:7 | dep | 59:18,22 | E 5: |
| 44:14,19,22 45:5 | course 74:12 | depending 35:12 | directly 43:12 | earlier 32:18 |
| 45:14,20 46:13 | court 48:12 80: | 35:16 | director 9:8 | 51:11 |
| 46:14,16,20 | 83:17 86:6 | depend | disagree 64:20 | easiest 22:22 |
| 52:19,20,22,23 | cover 40:2 | depict 21:17 | discussed 24:11 | easy $42: 19$ |
| 53:3,8,9,18,19 | covered 40:2 | 24:10 | 41:15 75:2 | economic 8:6 9: |
| 53:21 54:2,3,7,8 | create 15:24 26:21 | depicted 18 | discussion 15:2 | 9:22 10:2,5,7,13 |
| 54:11,12,20 55:3 | 31:10 | 32:10,11 | 74:24 | 10:23,23 11:4,20 |
| 55:11,15,20,21 | created 11:7,14 | depicting 28 | disentangle 27:17 | 12:15,22 13:7 |
| 56:1,22,23 57:21 | 21:9,11 29:1 | 28:22 | disruptive 81:9,22 | 14:1 15:13,16,24 |
| 57:22 58:23,24 | 62:17 | deposition 3 | divided 17:17 | 16:13 17:5,9 |
| 59:11,15,19,20 | creation 75:19 | 38:2 43:4 | document 13:18 | 18:12,17 19:8 |
| 59:24 60:1,4,5,8 | CROSS-EXAM... | describe 18:6 32:2 | 13:23 | 21:19 22:20 |
| 60:12,23,24 | :18 | des | doing 86: | 23:14 26:21 |
| 61:20,21,24 | CSR | designated 80:6 | dollar 49:1 51:12 | 27:1,4 28:20 |
| 63:19 64:8 | current 59:5,10 | DESTINY 4:4 | 51:14 52:3,5,12 | 31:11,16,19,22 |
| 65:24 66:1 67:6 | 77:1 78:1,1 | ect 84:13 | dollars 29:16 | 32:5 35:10 36:5 |
| 67:7,18,19 68:2 | currently 9:1 | ected 84:1 | 36:12 44:12,23 | 36:8,16,17 38:4 |
| 69:10 70:19 | 53:10 | determine 60:20 | 45:2,5 46:10 | 38:7,10,16 41:11 |
| 77:7 86:10 | CV 13:6 | detract 51:24 52:8 | 49:10 52:8 | 41:13,19 44:12 |
| correctly 10:17 | CX 5:2 | developed 12:2,3 | 67:2 | 45:21,23 46:5,8 |
| 1 |  | 12:6 | domestic 18:18 | 46:15 52:1,10 |
| cost 48:17,20 | D ${ }^{\text {D }}$ | development 8:22 | 21:24 | 61:15 66:3,4 |
| costs 43:19 46:2 | D 5:1 | 9:4,4,5,23,24 | double-checked | 67:13 70:11,15 |
|  | AR |  | 20:9 | 70:17,22 71:2 |
| ounsel 68:7,8 | damn 43:14, | difference 74:3,6 | downtown 9:12 | 75:18 76:12,23 |
| counties 23:23,24 | 45:17 75:3 | different 18:21 | dozens 38:15 72:3 | 76:23 77:21 |
| 24:6,13,14 25:4 | data 11:15,17 | 52:13 65:8,9 | 74:1 | 78:21 |

L.A. Court Reporters, L.L.C.

312-419-9292

| economics 8:23 | 35:8 36:18 39:9 | EPA 81:7 83:8 | 20:21 21:1 | 72:18 73:3 |
| :---: | :---: | :---: | :---: | :---: |
| economy 11:3,6 | 39:18 55:17 | equipment 70:14 | 29:11 33:5,6 | facility 11:2 12:23 |
| 11:13,24 15:17 | 62:6 64:4 70:7 | error 20:4 | excuse 34:17 | 17:2,19 22:13 |
| 15:20,22 16:3,10 | 70:10 78:17 | essentially $22: 13$ | 36:23 46:22 | 23:9 24:17,19 |
| 16:12 17:7,8,12 | employment | establish 65:22 | 47:14 76:7 | 25:22 26:2,10 |
| 19:23 22:1,5 | 16:19 18:14 | 66:21 | 77:18 78:10 | 30:11 31:2,4,7,9 |
| 23:2,10 26:10 | 19:13,15,16 20:6 | estimate 8:6 11:9 | exhibit 6:3 8:10 | 34:14,15 35:1,6 |
| 30:18 35:14,16 | 24:15,23 28:22 | 12:4 26:11 | 8:13,16 13:5,12 | 35:7 38:11 42:3 |
| 36:13,19 43:3 | 29:3 31:11 | 39:16 42:1,4, | 13:13,18,20 | 42:3 43:12 52:1 |
| 51:9 54:2,5 | 32:14 33:21 | 42:19 45:10 | 36:22 37:2 | 52:9 56:16 |
| 59:19,22 62:18 | 35:10,12,15,17 | 70:22 | 68:19 79:10,14 | 64:23 72:7,10 |
| 63:23 64:5 68:1 | 36:14,16 39:3 | estimated 26:1 | 79:15 | facility's 62:18 |
| 74:15 77:12 | 41:21 51:13 | estimates 11:1,5,7 | existing 38:8,17 | factory 10:24 |
| education 8:24 | 53:20,22 54:9,19 | 11:13 14:1 | 38:21 72:6 81:9 | facts 46:22 58:7 |
| 10:12 | 55:1,5,8,10 59:5 | 15:15 19:7,18 | expected 84:14 | faculty 9:21 |
| educational 8:19 | 59:10,12,13 60:2 | 30:10 34:19 | expenditure 11:21 | fair 37:8 46:23 |
| effect 15:16 16:3 | 61:14,16 62:9,12 | 42:16 72:9 | 11:23 40:8 | Faith 2:7 37:20 |
| 45:13,17 60:17 | 63:4,18 64:7,8 | estimating 10 | 42:15,22 | falls 51:4 |
| 65:3 | 64:23 65:11,20 | 18:16 | expenditur | familiar 49:23 |
| effects 15:20 | 65:23 66:9,12,20 | estimation 18:23 | 42:16 | family $83: 1,2$ |
| 35:13 64:4 | 66:22 67:9 72:9 | evaluate 15:14 | experien | far 51:17 81:16 |
| eight 80:18 | 73:1,19 78:14 | 46:11 | 74:1 | farther 51:18 |
| either 13:10 72:6 | 79:3 | evaluate | expert 13:7 47:23 | fbugel@gmail.c... |
| 73:11 80:9 | employments 77:6 | evaluati | 84:20 | 2:11 |
| electricity $62: 1,3$ | employs 77:17,18 | evaluation 9:5 | expertise 47: | fed 82:9 |
| embedded 39:23 | 78:18,24 | 26:8 | 48:4 50:19,21 | federal 11:18 |
| 40:9,20 | energy 35:19 38:5 | eventua | 56:10 72:3,12 | 12:17 |
| employ 26:20 31:6 | 75:10,13,14,19 | everybody 44 | 81:8 | fewer 36:18,19 |
| employed 53:14 | 85:1,8 | 68:19 | exp | 54:10 55:17 |
| 58:17 85:5 |  | eviden | explained 51: | 59:16 60:3 |
| employee 20:24 | engages 77:1 | 58:8 79:16 | extent 56:24 | field 72:11 84:21 |
| 23:24 31:5 | engineers 84:20 | EXAMINATIO | 58:20 | 85:5 |
| 39:20 | enjoy 44:10 | 22 71:20 | externalities 43 | fifteen 82:5 |
| employees 11:5,8 | ensure 84:7 | examined 7:21 | 43:8,15,20 44:9 | figure 54:19 |
| 12:24 15:18,20 | enter 40:10 | example 28:8 42:6 | 45:1,2,5,10,13 | figures 16:21 |
| 16:10,11,20,21 | entered 40:4 | 42:8 43:14 44:9 | 45:16 47:6 | 25:23 26:12 |
| 17:11,23 18:1,7 | entire 29:18 30:2 | 7:19 74:10 | 51:24 52:3,7 | 7:6,7 65:23 |
| 18:24 19:1,5,17 | entitled 9:1 20:15 | 75:3 | 74:23 75:3,9 | 67:20,21,22 68:3 |
| 19:23 20:20,21 | 21:16 23:6 | examples | externality 47:13 | final 55:22,24 |
| 24:1,17,20 25:3 | entry 59:2,4,9 | 45:12 | 75:7,13,15 | finally $25: 14$ 30:4 |
| 26:18 28:9,24 | 62:5,14,15 | E |  | 34:12 |
| 29:2,4,9,23 30:5 | environment |  | F | finance 8:23 10:3 |
| 31:9,15,18 32:20 | 81:15 | excessive 81:20 | facilities 8:7 19:20 | 10:8 |
| 32:24 33:5,17,19 | environmental | exclude 28:10 | 22:4,8 23:1 52:6 | financial 10:5 |
| 33:24 34:7,13 | 1:3 3:4 81:10,17 | excluded 19:2,7 | 63:22 70:6 | find 51:4 |

L.A. Court Reporters, L.L.C.

312-419-9292

| fine 7:16 | Fulton 24:5 | 24:13,23 25:17 | 47:21 48:5 69:2 | 63:10,21 64:12 |
| :---: | :---: | :---: | :---: | :---: |
| Finish 35:24 | further 12:7 68:4 | 26:15 27:10,11 | 73:17,19,20 | 64:19 66:23 |
| finished 37:10 | 79:8 | 28:21 29:13,15 | $\boldsymbol{\operatorname { g o o d }} 7: 2,248: 1$ | 68:5,10,14,24 |
| finishes 50:7 | future 30:24 | 31:24 32:5,15 | 44:9 80:5,9 | 69:3 71:8,13,17 |
| firm 74:10 | 65:13,23 66:11 | 33:18 34:14 | 83:13 | 77:2 79:11,13,17 |
| first 7:20 8:10,18 | 66:20,22 67:3,9 | 38:11 48:24 | goods 15:21 16:7 | 79:21 80:4,12 |
| 20:1,15 27:15 | 76:6,9,10,19,21 | 49:8,13,20 50:7 | 17:6 22:5 23:2 | 83:10,13,16 |
| 81:4 84:6 86:5 | 85:1 | 50:8,11,14,17 | 24:20 26:24 | 85:14,18 |
| fisheries 43:16 |  | 83:23 | government 11:19 | hand 22:21 |
| 45:18 | G | generation 1:9 8:7 | Governmental 9:3 | handing 68:21 |
| five 24:13,14 $25: 3$ | Gale 3:13 5:4,6 | 8:7 14:1 16:18 | 9:10 | handled 81:11 |
| 25:8 28:9 40:1 | 7:9,12,23 8:15 | 17:23 18:7,13 | governments 35:1 | happen 36:15 |
| 71:11,14 80:18 | 13:4,15,22 14:7 | 25:22 36:7 | grandchildren | happens 77:9 |
| five-county 24:6 | 14:11,16 15:6 | 39:15 40:23 | 80:18 | 78:14,20 79:1 |
| flabbergasted | 28:15 35:23 | 43:15 50:5 | granted 81:6 | harder 45:2 |
| 82:9 | 36:21 37:8,10,11 | 51:10 62:20 | green 85:1 | harms 43:16 |
| flowers 44:3,5,10 | 45:6 46:21 | 64:6 67:17 70:5 | GREG 2:15 | hear 10:6 18:18 |
| 45:14 | 47:21 50:18 | 72:2,20 73:2 | greg.wannier@... | 76:2 |
| flows 46:10 49:1,9 | 51:6,8 56:9,24 | 74:17 75:19 | 2:21 | heard 61:5,6 |
| 52:4,5,12 | 58:7 62:23 63:6 | 77:6,17 78:24 | groceries 11:8 | 66:23 83:3 |
| focus 33:14 49:18 | 63:20 64:10 | 80:22 82:19 | 15:22 | hearing 1:14 7:1,3 |
| 78:9,12 | 65:13 66:13,18 | 84:16,24 85:11 | gross 18:18 21:24 | 7:14 13:4,8,11 |
| focused 10:4 19:3 | 66:19 67:5 68:6 | Generation's | groundwater | 14:6,14,18,21,24 |
| 33:14 78:11 | 68:16,24 69:2 | 18:24 39:3,6 | 48:23 49:3,7,12 | 15:4 28:11,14 |
| focuses 10:15 | 71:10,11,21 | generic 74:22 | 50:15 76:2,6 | 36:21 37:6,9,12 |
| folder 14:9,12 | 72:22 75:12 | getting 47:4 | 84:9,12 | 37:15 45:7 |
| follow 14:12 83:7 | 77:4 79:8 | give 48:2 80:8 | group 8:24 9:2 | 46:23 47:21 |
| 85:11 | Gale's 71:18 | given $86: 11$ | 12:5 27:13 | 48:1,8,14 50:20 |
| follows 7:21 | game 46:24 | go 11:9 12:20 | guess 23:14 36:10 | 51:7,15,20 56:11 |
| foregoing 86:9 | gas 74:17 | 15:23 25:2 | 41:24 | 56:13 57:3,8,13 |
| Forest 12:4 | gas-fired 73:11 | 32:17 33:12 | guys 83:7 | 58:9,11 63:1,7 |
| form 70:10,15 | gather 41:1 | 42:9,9 56:4 |  | 63:10,21 64:12 |
| forward 31:22 | Gen 41:8 55:4 | 65:11,12 66:15 | H | 64:16,19 66:23 |
| found 48:23 49:3 | 62:12 70:13 | 66:15 67:24 | H 6:1 | 68:5,7,10,14,16 |
| 49:7,12 | 78:18 83:7 | 68:11 69:4,15 | half 29:16 | 68:22,24 69:3 |
| four 9:6 18:13,20 | generally 15:12 | 78:14 79:9 | Halloran 1:15 7:1 | 71:8,11,13,17 |
| 29:10 62:24 | 35:9 45:9 50:1 | 83:18 | 7:3,14 13:8,11 | 77:2 79:8,11,13 |
| 64:11 | generated 19:19 | goes 56:4 79:4,5 | 14:6,14,18,21,24 | 79:17,21 80:4,12 |
| four-county 29:11 | 24:21 76:24 | going 20:3 31:22 | 15:4 28:11,14 | 83:10,13,16 |
| FRANZETTI | generates 35:19 | 36:19 42:24 | 37:6,9,12,15 | 85:14,18 86:9,12 |
| 3:15 | 36:11 67:17 | 47:22 53:2 | 45:7 46:23 48:1 | heavy 75:7 |
| friendly $81: 17$ | generating 14:2 | 72:10 | 48:8,14 50:20 | held 1:13 |
| front 8:9 13:17 | 18:13 19:17,18 | gonna 15:7 19:6 | 51:7,15,20 56:11 | hello 80:15 |
| 15:9 44:3 | 21:5,15 22:2,14 | 25:2 31:23 | 56:13 57:3,8,13 | help 84:7 85:2,6 |
| fuel 74:12 | 22:24 23:7 | 42:18,20,23 | 58:9,11 63:1,7 | helpful 70:2 |

L.A. Court Reporters, L.L.C.

312-419-9292

| highly 82:20 | 35:15 36:5,8,17 | 45:4 | 70:18 73:20 | issue 52:11 |
| :---: | :---: | :---: | :---: | :---: |
| hire 70:6 | 38:4,8,11,16 | impoundments | individual 42:18 | issues 84:14 |
| hiring 70:10 | 41:11,13,19 | 84:5 | 57:6,7 | it'll 36:3 |
| history 84:19 | 45:18 46:5 | improvements | individually 64:17 |  |
| hits 82:4 | 50:16 52:1,10 | 12:11 | induced 17:9,10 | J |
| honestly 63:8 | 53:21 58:17 | include 11:16 | 17:16 19:3,7,22 | James 80:14 |
| horrible 82:7 | 59:14 61:14 | 18:23 41:11,14 | 21:1,10,12 22:7 | JENNIFER 3:12 |
| Horton 2:4 7:8 | 66:4 67:13 | 41:19 42:15 | 22:15 23:3 | jeopardize 81:9 |
| hour 1:19 | 70:22 74:19 | 43:20 50:9,12 | 24:21 25:24 | job 83:8 84:23 |
| house 44:3 | impacted 46:18 | included 24:6 | 29:12 33:2,5,6 | 85:12 |
| households 11:23 | 53:14 | 32:22 40:4,7 | 49:19 51:3 64:2 | jobs 11:7,13 15:24 |
| 40:8 | impacts 10:23 | 42:13 44:15,17 | 64:8,23 65:10 | 18:8 19:19,24 |
| huge 83:1 | 12:4 16:9 17:9 | includes 18:4,15 | 70:18 73:20 | 20:2 21:8,11,12 |
| human 9:23 | 17:10,10 18:13 | 21:20 | industrial 11:11 | 24:22,22 36:11 |
| hundreds 36:11 | 18:21 19:3,4,20 | Including 39:10 | industries 73:13 | 42:5 44:20 54:6 |
| 67:17 | 19:22 20:19 | 39:11 | 73:15 74:14 | 54:10 59:16,23 |
| hypothetical | 21:7,11 22:24 | income 11:13 18:3 | industry 11:1 | 60:3 62:17 |
| 46:21 47:16 | 23:3,9 24:12,18 | 18:15 20:15,16 | 15:13 73:14,21 | 67:17 76:24 |
|  | 24:21 26:1,10,22 | 21:2,8,14,22 | 73:23 74:2,16,18 | 77:5,8 |
| I | 27:5,17 29:12 | 25:1,2,4 28:22 | information 16:17 | joining 9:18 |
| idea 82:7 | 32:5,15 33:2,4,5 | 29:15,17,19 | 26:4 39:18 41:2 | Joliet 23:11 27:10 |
| identification | 33:7,8,9,12,15 | 32:14 33:2,23,24 | 41:8 67:2 | 28:1,4,21 31:17 |
| 8:11,14 13:21 | 34:24 35:8,9,10 | 34:3 35:15 | initial 57:9 | 49:13 60:21,22 |
| identified 13:18 | 36:11 41:11,14 | 36:12,19,20 | input 12:1 74:16 | 61:2,7,10,12,18 |
| IEPA 84:21,23 | 41:20 43:3,11 | 41:21 42:24 | input-output | 61:22 62:5 66:8 |
| 85:12 | 46:8 48:22 49:3 | 55:14,18 64:5,22 | 16:15 17:1 | 66:12,22 |
| Illinois 1:1,17,18 | 49:6,11,19 51:3 | 67:24 69:16,22 | inputs 10:17 11:3 | June 1:18 7:6,6 |
| 2:3,9 3:17 7:3 | 63:24 64:23 | 78:15 | 11:10 12:20 |  |
| 8:8 9:3,15 14:2 | 65:8,9,10 67:3 | incomes 19:23 | 15:18 16:4,16 | K |
| 19:4,19 20:24 | 70:19 73:17,20 | incorrect 20:10 | 17:7 19:21 | K 86:3 |
| 33:7,10,14,15 | 73:22 74:15 | 55:7 | 22:17 39:1 | keeping 83:24 |
| 36:11 81:7 83:8 | IMPLAN 10:13 | incorrectly 20:11 | 40:21,22 57:6,19 | Kendall 28:5 |
| 85:1 86:1 | 10:20,21 11:15 | increase 82:15 | 57:20 60:21 | killed 82:5 <br> kind 10:4 17:18 |
| immediately | 12:2,12,13,21 | increases 81:24 | 61:18 62:19,22 | kind 10:4 17:18 37:7 73:12 |
| 84:15 impact 10:21 | $15: 12 \mathrm{l}$ $\mathbf{2 3 : 2 2}$ $24 \cdot 15,16$ | independently | 63:4,17 inputing $74 \cdot 18$ | kinds 74:13 |
| impact $10: 21$ $12: 1514: 1$ | 23:22 24:15 | 41:7 | inputting 74:18 | knew 16:19 |
| 12:15 14:1 15:13 16:13 | 26:10 27:18 39:21,23 71: | Indiana 20:23 28:10 | insufficient 47:17 INTEGRITY 3:4 | know 11:5,9 15:17 |
| 17:19 19:8,16 | 72:4 73:12,13 | indirect 17:4,5,16 | interest 81:14 | 16:5,7 30:19 |
| 21:1,8,9,19 22:3 | 74:1,19 | 19:18,20 21:7,9 | international 8:21 | 33:12 35:13 |
| 22:7,20 23:4,14 | importance 30:17 | 22:4,15 23:1 | interpret 10:18 | 42:17,22 43:13 |
| 24:23 25:24 | important 26:7 | 24:19 25:24 | interrupted 68:8 | 47:8,15 50:24 |
| 27:1 31:9,10,11 | 30:15 34:23 | 49:18 50:16 | intersect 54:19 | 51:16 61:4 |
| 31:16,19,22 | 83:24 85:2 | 51:3 62:15,16,17 | 55:1 | 65:22 66:11 |
| 33:21 34:16 | impossible 42:17 | 63:5,18,23 65:9 | inviting 85:12 | $\begin{aligned} & \text { 67:8 69:6 75:6 } \\ & \text { 80:17 81:21 } \end{aligned}$ |

L.A. Court Reporters, L.L.C.

312-419-9292

| 7,23 83:4 | 31:21 35:12,14 | looking 8:18 | 45:17 | 20:7 23:22 |
| :---: | :---: | :---: | :---: | :---: |
| knowledge 26:14 | 35:16 36:5 66:3 | 19:12 20:14 | met 37:21 | 4:15 27:18 |
| 26:16,17 81:7 | 67:12 | 24:9 29:21 | method 84:17 | 40:5,7,9,15 |
| KRISTEN 3:13 | levels 55:16 73:19 | 31:24 32:9 42: | metrics 24:11 | 42:14,16 43:1 |
|  | 78: | 49:16 50:6 | 41:22,24 | 46:9 73:12,13,14 |
| $\frac{\mathbf{L}}{}$ | License 1: | 52:13 54:18,21 | Midwest 1:9 8:7 | 73:15,21 74:1,2 |
| eled 62:8 | :16 | 59:9 | 14:1 16:18 | 74:19 |
| labor 11:19 18:14 | lights 83:24 | looks 14:14 | 17:23 18:7,13,23 | modeling 39:21 |
| 20:15,16 21:2,8 | limited 33:10 | lot 22:17 48:2 | 25:22 36:7 39:2 | 39:23 40:21 |
| 21:13 25:1,2,4 | line 48:7 | 50:23 83:1 | 39:5,14 40:22 | 71:24 76:6 |
| 26:21 28:22 | liner 84:9 | Lots 12:15 | 41:8 55:4 62:12 | models 12:18 42:1 |
| 29:14,14,17,19 | little 38:1 52:14 | lower 59:16 65:5 | 62:20 64:6 | 72:4 |
| 31:11 32:14 | 64:14 80:16 | 65:5 | 67:17 70:4,13 | Mohawk 2:8 |
| 33:2,23,24 34:3 | live 19:1 20:20 |  | 72:2,20 73:2 | money 11:6,12,22 |
| 35:10,15 36:12 | 24:2 29:9 83:2 | M | 77:6,17 78:18,24 | 11:24 16:3,11 |
| 36:19,20 55:14 | lived 20:24 28:9 | maintenance | 80:21 82:19 | 17:11 19:6 |
| 55:17 64:22 | 32:20,21 | 11:11,12 50:1 | 83:7 84:16,24 | 33:13 42:11 |
| 67:8,24 69:15,22 | lives 39:20 | 74:13 | 85:11 | 43:2 46:3 54:1,4 |
| 74:10,11 78:15 | living 81:23 | majority 23:24 | migration | 54:6 59:18,21,23 |
| Lake 32:7,18 | LLC 1:9 | making 10:16 | miles 23:13 27:16 | monitoring 76:3,7 |
| 83:21 | LLP 3:15 | managing 84:5,17 | million 21:6,6,7 | 84:6,12 |
| landscaping 1 | local 11:3,6,13 | Mark 83:19 | 21:10,13 22:4,6 | morning 7:2,24 |
| larger 22:16 | 15:20,22 16:9,11 | marked 6:2 8:11 | 22:6,9,24 23:1,3 | 8:1 |
| LaSalle 3:16 | 17:7,8,11 22:5 | 8:14 13:21 | 23:4 25:6,7,12 | motion 13:10 |
| Lastly 84:24 | 23:2,10,10 26:10 | married 80:17 | 25:13,16 29:16 | move 13:4,6 37:1 |
| latitude 48:3 | 30:10,12,13,18 | Mason 24:2 | 29:20,24 30:3,7 | 42:4 51:19 69:1 |
| 51:16 | 32:6,6 34:18,24 | master's 8:22 9:22 | 30:7 34:2,5,9,11 | 79:9 |
| LAUGHRIDG | 35:14,16 43:3 | matter 8:3 | 34:15,16 73:16 | moved 80:22 |
| 3:13 | 54:1,5 56:8,15 | McHenry 32:7,19 | 73:18 77:13 | 82:10 |
| law 1:3 74:10 | 59:18,22 60:17 | mean 29:8 36:14 | millions 36:12 | movies 11:9 15:23 |
| laws 83:8 85:11 | 63:23 74:15 | 1:22 | 7:24 | moving 27:8 |
| leaching 84:11 | locally 21:23 | means 78:17 | mind 80 : | 52:14 |
| lead 62:21 65:19 | located 9:11 16:20 | measure 12:22 | Minnesota 12:6 | multiplier 15:16 |
| 66:2 81:11 | 23:12 71:2 | 21:18,19 22:1,20 | minute 15:8 68:9 | 15:19 17:13,14 |
| leading 72:21 | 72:18 73:4 | 45:2,4 | minutes 71:12,14 | 17:15 20:5,6 |
| 75:11 | location 16:20 | measured 44:12 | mischaracterizes | 35:13 65:6,11 |
| leaves 43:2 | long 9:16 27:3 | 44:23 | 7:2 58:7 | MWG 17:21 |
| leaving 82:12 | 31:14 47:6 | measures | missing 14:5,8,15 | 72:15 |
| led 61:23 64:7 | longer 46:19 58: | mechanism 81:5 | Mississippi 9:20 |  |
| left 54:18 | 58:14 | meeting 82:22 | mistake 69:2 | $\frac{\mathbf{N}}{}$ |
| legitimate 57:14 length 69.7 | look 23:8,18 27:20 | member 9:21 | model 10:13,14,16 | N 5:1 |
| length 69:7 | 28:2,17 32:19 | 80:23,23 | 10:18,20 11:16 | name 7:2 80:13,14 |
| let's 16:22 18:10 | 54:17 59:8 | members 83:2 | 12:1,2,12,13,15 | 83:18,19 |
| 23:5 32:9 77:17 | 62:10 79:2 | memory 62:16 | 12:19,20,21 | nationwide 33:11 |
| level 27:4 31:16 | looked 23:7,9,21 | mentioned 42:8 | 15:12 16:15,16 | need 7:10 31:6 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 40:10 | NW 3:5 | 85:18 | output 18:19 20:7 | parties 48:2 |
| :---: | :---: | :---: | :---: | :---: |
| needed 16:8 | 0 | oh 28:5 54:21 | 22:10,11,12 $23: 4$ | patterns 11:21,23 |
| needs 12:22 | 0 | 77:24 | 25:14,16,16 | 23:21 40:8 |
| negative $45: 16,23$ | O 86:3,3 | Okay 7:14 8:18 | 28:23 30:4,5,8 | 42:15 74:8 |
| 46:5 51:23 75:2 | Oakland 2:19 | 13:11 14:24 | 32:14 34:12,14 | pay 16:10 18:5,9 |
| 78:12 | oath 86:6 | 15:11 19:12 | 34:15 39:16 | 18:15 21:4 39:9 |
| neighboring | object 47:22 | 24:9 37:15 | 55:22,23 69:18 | 43:18 44:10 |
| 81:23 | 56:24 | 41:16 48:8 | 69:22,23 79:1,3 | 55:16 78:16 |
| NETWORK 1:5 | objection 13:10 | 51:19 52:14 | outputs 10:18 | paychecks 15:21 |
| never 38:17 | 45:6 46:21 | 54:22 55:4 62:4 | outside 20:20,24 | paying 15:17 |
| new 42:3 83:8 | 50:18 56:9 58:7 | 62:20 63:3 65:2 | 29:9,10 42:9,24 | payment 73:2 |
| 85:11 | 62:23 63:6,20 | 66:23 68:10,24 | 47:4,22 48:18 | payroll 11:2 13:1 |
| news 18:19 | 64:10 66:13 | 69:3 71:7 | 50:19,21,23 54:6 | 16:21 17:3 21:4 |
| night 82:3 | 72:21 75:11 | once 38:5 | 54:10 56:9 | 21:22 39:6,8 |
| NIJMAN 3:12,15 | 79:12 | open 8:10 | 59:23 60:4 | 44:15 53:21,22 |
| NISHIOKA 3:14 | objections 13:9 | operate 10:14 | 82:21 | 53:24 59:14,15 |
| NIU 9:11,14,16,18 | 37:5 | 26:15 27:3 31:8 | overall 11:4 17:15 | 59:16,17 72:9 |
| nonprofit 12:8 | obtain | 31:15,18,20 | 17:19 18:4,12,17 | 73:178:17 |
| North 12:9 | obtained 30:13 | operates 12:8 | 22:1 25:7 27:20 | PCB 1:5 7:4 |
| Northern 9:15 | occur 46:12 52: | 53:10 | 36:10,17 67:16 | peaker 35:20 36:1 |
| notations 14:20 | odd 14:15 | operating 31:3 | Overruled 45:7 | 36:3 53:10 |
| note 7:7 14:5 | offers 10:13 | 58:6 72:6 | 56:13 57:14 | people 10:14 |
| 85:16 | office 9:11 11:1 | operation 10:16 | 63:10,21 | 11:24 22:22 |
| noted 14:7 | 16:6 25:23 26:5 | 10:24 36:4 | oversee 84:22 | 26:20 31:5,6 |
| notes 86:10 | 30:14 72:17 | 50:16 |  | 33:12 42:4,8,19 |
| notice 20:4 | officer 1:14 7:1,3 | operations 19:21 | P | 42:23 46:2 |
| nuclear 38:5 | 7:14 13:4,8,11 | 21:14,23 22:8 | P 1:15 | 53:14 58:17 |
| number 6:2 20:9 | 14:6,14,18,21,24 | 35:4 49:19 50:7 | packing 82:12 | 76:11,22 78:19 |
| 20:10 41:16 | 15:4 28:11,14 | 50:8,9,11 51:2 | page 14:5,8,15 | 78:24 |
| 53:14 55:2,6,9 | 36:21 37:6,9,12 | 51:10 53:2,7 | 16:22,23 17:20 | Peoria 24:2 |
| 55:11,13,17,24 | 37:15 45:7 | 57:23 58:3,13 | 18:10 23:6,6 | percent 24:1 |
| 58:17 62:11,11 | 46:23 47:21 | 61:1 | 25:18,19 27:8 | 42:23 |
| 63:18 64:7 65:4 | 48:1,8,14 50:20 | opinion 17:22 | 28:16 30:9 32:2 | performed 84:12 |
| 66:24 77:13,23 | 51:7,15,20 56:11 | 30:16 33:17 | 32:9,12 34:17,18 | person 83:3 |
| 78:8 | 56:13 57:3,8,13 | 36:6 47:23 | 41:16,17 49:15 | personal 41:21 |
| numbers 16:19 | 58:9,11 63:1,7 | 51:23 67:16 | 59:1 62:5 72:14 | personally 19:10 |
| 21:3 24:16 | 63:10,21 64:12 | 71:1,3 | paid 21:22 25:21 | 83:6 |
| 31:13 33:3 | 64:16,19 66:23 | opportunities | 26:1 30:11 | Ph.D 8:21 9:23 |
| 36:15,16 39:3,6 | 68:5,7,10,14,16 | 43:17 | 34:20 | phrase 64:14 |
| 39:8 51:13 | 68:22,24 69:3 | opportunity 80:15 | paragraph 28:2,3 | phrased 63:9 |
| 55:23 56:3 | 71:8,11,13,17 | 81:1 84:2 | 32:19 41:17 | picking 77:12 |
| 62:12 63:4 | 77:2 79:9,11,13 | opposite 79:2 | 49:16 | place 50:4 52:18 |
| 65:12 66:11,15 | 79:17,21 80:4,12 | original 17:17 | part 8:18 9:2 43:2 | 54:24 56:22 |
| 66:15 67:8 | 80:19,20 83:10 | originally $12: 3$ | 73:24 75:23 | 81:5,16 |
| 78:14 | 83:13,16 85:14 | ORTIZ 4:4 | 84:24 | planning 10:22 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 85:3 | power 8:7 30:22 | production 15:18 | 60:20 | real 48:1 |
| :---: | :---: | :---: | :---: | :---: |
| plans 35:5 | 31:2,4,9 35:6,7 | 54:13 55:19 | put 15:7 20:8 | ally 21:20 27:17 |
| plant 35:5 38:8,13 | 38:8,18,22 39:14 | 60:6,10,13,14 | 40:14 56:17 | 33:4 |
| 38:15 53:2,7 | 43:14 44:17 | 61:23 62:1,2 | 57:5 | eason 22:15 |
| 54:7,11,14 55:6 | 50:5 54:14 | professional 10:3 | puts 11:12 56:15 | asons 27:15 |
| 56:21 57:6,7,21 | 60:13,14 65:16 | 10:8 84:19 | 64:18 | recall 43:4 53:4 |
| 57:24 58:6,13 | 65:19,23 67:6,9 | profits 21:23 | putting 18:16 | 61:9 65:14 73:7 |
| 59:24 60:3,7,11 | 67:13 73:16 | program 9:22,23 | Q | 2475 |
| 60:22 61:2,10,12 | 74:11,17 85:6 | progress 81:10 | Q | 76:8,17 |
| 61:19,23,23 62:7 | Powers 23:6 | project 3:4 38:5 | qualified 13 | receive 43:18 72:4 |
| 73:6,10,11,16 | Powerton 23:15 | 38:12,15 77:14 | qualify 13:6 | 72:12,16,19,23 |
| 74:12 | 23:16,17,19 24: | 84:22 85:9 | quantified 46: | received 72:1 |
| plants 38:18,22 | 24:3,12,17,23 | projects 38:2 72:8 | 46:20 47:20 | ecess 68:12 71:15 |
| 39:15 44:3 57:1 | 25:3,9,11,15,15 | proper 68:18 | 52:7 70:8 | 79:23 85:20 |
| 71:2 | 25:17 26:15 | 79:10 | quantify 66:6 | recognizing 19:5 |
| plays 47: | 48:24 | property 25:21 | 67:3,12,20 68 | ecollection 18:24 |
| please 8:19 4 | Prairi | 30:12 34:20 | 71:5 | 76:5 |
| 63:14 71:12 | prepared 13:24 | 6:8,12,14,17,17 | question | record 7:2,5,7 |
| 77:2 | PRESENT 4:1 | 60:18 85:4 | 41:12 48:10 | 13:14 14:22,23 |
| plus 18:5,15 40:15 | presenting 18:21 | proposal 84:7 | 51:18 57:9,14,18 | 5:1,3,5 27:13 |
| 69:16,18 | presumably 48:17 | proposed 38:11 | 63:13,16 64:15 | 48:15 57:11 |
| p | 61:16 65:2,19 | 38:13 42:3,3 | 64:17 66:8,10,14 | 8:11,15 71:12 |
|  | 6 | pr | 69:8 78:18,23 | 71:14,18 79:22 |
| political 81:13 |  | proposing 82:20 | ques | 0:5 85:19 |
| pollution 1:1 2:3 | prevent 84:10 | proven 82:21 | 40:14 46:24 | recreational 43:16 |
| 46:8,13 | prima | -1 | 48:6 51:11,12 | recross 79:18,20 |
| pond 50:3,14 84:8 | 11:17 74:10 | provided 16:18 | 64:13 66:18 | redirect 71:10,19 |
| ponds 49:23 50:9 | primary 74:11 | 39:19 60:23 | 8.4,23 71.2 | 71:20 |
| 50:12 76:16,22 | prior 38:8 52:18 | 78:6 83:24 | 75:11 77:24 | reduced 46:13 |
| 81:6 84:4,7,10 | 56:22 60:23 | provides 43:16 | 78:9,11 | 3:20,22,23,24 |
| 84:18 |  | public 4:3,4,5 | quite $42: 19$ 51:8 | 4:9,13,14 55:5 |
| ortion 47:9 | probably 33 | 7 | 64:14 81:8 | 5:10,11,14,15 |
| positive 43:20 |  | publicl | R | 55:18,23 59:13 |
| 45:13,21 75:2 | proceedings 1:13 |  | Rae 68:15 | 9:17 60:2,2,6,7 |
| 78:12 | 80:1 85:22 86:8 | purchase 15:2 | Raelene 1:15,23 | 2:21 63:3,17,24 |
| possible 27:17 | 86:11 |  | Raelene 1:15,23 | 4:24 |
| :10,13,18 | proces |  | rainwater 84:10 | refer 41:1 |
| 53:15 65:10 |  | 15:23 16:4 17:3 | rainwater 84:10 <br> Randolph 1:17 | re |
| potable 46:15,18 | pro | purchasing 11:10 | Randolph 1:17 | referring 38:2 |
| 47:7,12,17,19,20 | produce 26:24 | 2:21 63:3,17 | RDX 5.2 | $39 \cdot 8$ |
| potential 38:10 | produced 11:18 |  | RDX 5:2 <br> read 48:12,15 |  |
| :19 66:20 | 14 44.18 | purely 81:13 | read $48: 12,15$ | reflected 78: |
| :873:10 | producing 30:21 |  | $49: 2157: 9,11$ | refresh 62:15 |
| 19 | product 18:18 | purposes 8:11 | 85:15 | region 21:21 |
| potentially 61:2 | 21:24 41:20 | 17:1 18:22 | $\begin{aligned} & \text { ready } 37: 14,1 \\ & 71: 18 \end{aligned}$ | 23:10,18 24:3,7 |

L.A. Court Reporters, L.L.C.

312-419-9292

| 24:20 25:3,5,9 | 39:13,17 41:17 | retained 8:2,5 | ruling 37:3 | separate 52:11 |
| :---: | :---: | :---: | :---: | :---: |
| 25:11,15 27:24 | 46:7,11 48:22 | retire 61:10,12 | run 16:8 31:7 | 77:14,16 |
| 29:4,10,11,18 | 49:2,6,11,16,17 | retired 62:20 | 38:24 | separately 77:11 |
| 30:2,6 32:6,6,16 | 51:1,8 52:18 | 80:19,20 | RUSS 3:3 | September 61:2 |
| 32:18 34:8,13 | 53:1 54:18 | retirement 55:19 |  | service 10:24 12:4 |
| 42:5,9 43:1,2 | 56:12 57:4 | 56:7 60:16 | $\frac{S}{}$ | 16:6 80:20 |
| 44:21 47:9,10 | 58:21 59:2 | 61:22 64:6 | S 6 | 83:24 |
| 48:18 67:18 | 60:22 68:18 | retirements 61:19 | safer 81:16 | services 15:21 |
| regional 23:14 | 72:15 | 62:7 | safety 80:20 | 16:8 17:7 22:5 |
| 62:18 64:5 | reported | retires 5 | salaries 18:6 | 24:20 27:1 |
| regions 18:9,20 | 86:8 | retiring 53:13,1 | sales 13:1 18:19 | seven 19:9 |
| 23:18,21,23 | reporter 1:16 14:3 | 58:16,22 | 22:12,23 | share 81:1 |
| 27:18,21 31:12 | 35:22 48:12 | revenue $22: 13$ | sat 75:22 76:1 | Shealey 76:15 |
| 36:9 | 56:2 80:13 | 30:10 31:15 | says 49:17 59:4,10 | Shealey's 75:23 |
| related 15:11 52 | 83:18 86:6,15 | 34:18 73:16,18 | 86:6 | shining 85:6 |
| 5:3 | represent 62:12 | revenues 26:1 | scale 53:16 | short 10:21 68:12 |
| relates 36:7 | 64:3 | 56:8 60:18 | Scarcity 47:10 | 71:15 79:23 |
| relative 33:3 | represen | Richard 5:3 7:13 | scares 82:15 | 85:20 |
| release 81:24 | 37:20 | 7:14,15,19 8:2 | scenario 67:10, | shorthand 1:16 |
| rely 51:11 72:8 | represent | 13:16 14:19 | 82:2 | 86:8,10,15 |
| remain 55:16 | 62:16 | 16:24 26:14 | school 82:4 | show 20:19 |
| remaining 58:3 | requested | 28:12 37:20 | science 81:1 | showing 19:15 |
| remember 48:9 | 57:12 | 47:1,2 48:4,8 | 84:18 | 21:3 25:20 26:9 |
| removal 81:18 | require | 63:12 64:21 | scientific | 30:10,17 |
| rendered 47:13 | res | 6:19,21,24 69:6 | 82:21 | shows 34:24 |
| renewable 75:10 | resident 83:20,21 | 71:22 | scientists 84:20 | Sierra 1:3 2:13,16 |
| 75:13 85:8 | residential 39:18 | Richard's 13:6,7 | scope 47:23 48:4 | 2:23 37:21 |
| renewables 85: | residu | 68:18 | 50:18 56:9 | signs 51:12,14 |
| renewal 75:15 | respond 51:6 | right 7:1 15:4 | screen 15:8 | similar 12:18 |
| repeat 48:11 | responded 51:11 | 25:8 40:11 44:7 | Scroll 32:12 | 18:18 21:24 |
| 63:13 | Respondent 1:10 | 45:21,24 46:5 | seat 80:10 83:17 | 27:4,5 31:20,22 |
| rephrase 41:12 | 3:18 6:3 | 51:20 55:2,7,15 | second 19:13 28:2 | 32:4,13 34:22 |
| 58:10 61:17 | responden | 59:3 64:9 70:8 | 8:3 41:17 | 47:5 78:18 |
| 66:10 | 79:14 | 70:23 72:20 | 49:16 81:16 | similarly $25: 8$ |
| replace 36:23 | response 5 | 73:10 77:6 | 84:16 | 30:4,15 31:17 |
| 68:20 | rest 23:15 | 81:20 | 27 | 55:13,20 56:21 |
| replacement | result 21:1 | ripple 16:2 | sector 74:9 77:1 | simply 17:15 20:1 |
| 75:16 | 49:19 54:10 | ripples 16:3 | see 13:17 29:6 | 22:12 |
| replacing 75:14 | 60:3,7 | risk 81:24 82:13 | 3:4 37:5,7 | sir 36:24 57:15 |
| report 1:13 13:24 | resulting 24:19 | risking 81:12 | 69:24 | 79:22 80:9,14 |
| 15:7,8 16:22 | 25:17 | Rivers 1:4 3:10 | ng 44:4 | 83:11,13 85:14 |
| 20:10 23:7,15 | results 17:6 50:5 | road 2:8 82:13 | sense 27:20 | sit 78:6 80:11 |
| 25:18,19 26:3 | 79:3 | rows 19:14,14 | sentence 28:3 | size 13:2 |
| 27:9 28:17 29:1 | resume 8:17,19 | 20:1 | 35:24 49:17 | skipped 59:7 |
| 32:3 38:9 39:2 | retail 10:24 | RUINING 1:6 | 50:6 | slightly 63:9 |

L.A. Court Reporters, L.L.C.

312-419-9292

L.A. Court Reporters, L.L.C.

312-419-9292

| 83:12 | trucks 82:2,9,14 | 62:7 | 51:9,24 52:9,13 | 33:18,21 34:1,4 |
| :---: | :---: | :---: | :---: | :---: |
| thoughts 81:1 | 82:18 | units 35:20 36:2,3 | 54:14 55:20 | 34:7,8,8,13,13 |
| thousand 42:19 | true 86:9 | 53:7,11,13,18 | 56:15,16 60:7,11 | 35:3,11,19 49:4 |
| three 20:1,1 21:13 | try 45:10 | 55:5 56:7 60:17 | 60:14,20 61:24 | 52:18,22 53:2,6 |
| 23:13 81:3 | trying 41:18 51:4 | 61:10,12,22 | 62:2 69:16,22,23 | 53:14,20,24 |
| three-county | turn 13:16 16:22 | 62:21 64:7 | 71:2,3 75:10,17 | 54:10 56:7 59:7 |
| 32:16 | 18:10 23:5 | universe 40:17 | 76:23 77:21 | 59:9,11 67:5,6,9 |
| time 26:3 52:24 | 25:18,19 27:7 | universities 12:16 | 78:20,22 | 83:22 84:4 85:4 |
| 53:5 57:1 80:6 | 28:16 31:23 | University 9:3,15 | Vanessa 2:4 7:8 | way 10:22 17:18 |
| times 62:24 66:24 | 32:9 49:15 | 9:20 12:6 | variety 11:17 | 18:16 20:8,18 |
| title 9:7 | 56:20 59:1 62:4 | unnecessary | various 19:14 | 23:20 26:9 |
| today 7:6 35:3 | 72:14 | 81:20 | 30:12 | 30:17 36:24 |
| 6:7 78:2,4 84 | turning 34:17 | unrelate | verify 41:7 | 46:19 52:13 |
| 85:13 | 60:21 67:5 | unusable 47:13 | Vermont 3:5 | ways 18:21 45:9 |
| tool 16:14 | two 20:22 27:14 | upcoming 61:19 | vital 85:8 | we'll $27: 8$ 28:16 |
| top 32:19 69:13 | 27:21,23 29:1,13 | 62:6 | voices 82:22 | we're 7:1 14:24 |
| 84:9 | 29:15,18,23 30:2 | update 12:10 | vs 1:8 | 15:4,7 27:8 |
| topic 66:16,17 | 30:6 65:16 | updated 52:21 | W | 31:24 37:14 |
| total 12:24 13:1 | two-day 10:13 | 57:20 | W | 7:4,8,22 66:16 |
| 18:19 19:24 | type 27:1 $31: 10$ | upper 5 | W-e-h-l-i-n-g | 8:14 71:17 |
| 20:2 21:12 22:7 | 31:18 38:19,20 | use $12: 12,16,16$ | 3:20 | 79:22 80:4 82:6 |
| 22:12,22 23:3 | 42:21 64:13 | 12:17 16:14,14 | wait 37:2 69:2 | we've 20:19, 21,24 |
| 24:22 25:4,10,13 | 69:24 74:18 | 39:21 42:21 | walking 44:4 | 41:15 62:24 |
| 25:14,16,16 27:4 | types 12:18 42:15 | 85:3 | Walmart 73:17 | 64:11 |
| 28:24 29:3,17,19 | 74:8 75:19 | uses 11:17 12:1,13 | WANNIER 2:15 | Webster 2:17 |
| 30:1,8 33:20 | typically 56:4 | 71:4,5 | want 7:7 14: | Wehling 83:15,19 |
| 34:3,10,15 51:24 | 72:4 | usually 48:2 | 27:7 32:17 38 | 83:20 85:17 |
| 52:9 62:11 65:3 | typogr |  | 38:24 40:13 | well-paying 18:8 |
| 65:5 69:14 | 20:4 | V | 52:14 54:17 | went 10:15 40:2 |
| touched 15:11 |  | vacation 42:9 | 6:20 59:1,8 | 40:17 66:14 |
| 27:12 29:7 | U | ons 33: | 0:15 62:4,10 | West 1:17 |
| 75:20 |  | 42:24 | 65:22 66:21 | widely 12:7 |
| traffic 75:7 81:20 | unattractive 20:8 | vague 45:6 | 69:1 70:4 72:14 | Vilmette 2:9 |
| 81:22 | underscore 17:21 | value 8:6 13: | 78:3,9,12 80:17 | wind 85:7 |
| training 10:3,11 | 72:15 | 18:5,15,17 21:17 | wanted 80:15 | Wisconsin 19:2,5 |
| 10:15 73:24 | understand 10:17 | 21:18,21 22:3,7 | Warrant 80:19 | 19:6 20:21 |
| transcribed 20:11 | 22:22 31:1 | 22:16 25:10,10 | Washington 3 | 32:21,24 33:9 |
| 80:3 85:24 | :13 41:18 | 25:12 27:1 | wasn't 42:13 | witness 5:2 7:10 |
| transcript 86:10 | 71:4 75 | 28:22 29:21,22 | 82:10 | 7:16,17,20 14:9 |
| ansition 85:3 | understanding | 30:1 32:14 34:6 | water 46:15,18,19 | 28:13 45:9 47:4 |
| transporting 82:6 | 30:19,23 31:4 | 34:7,10 35:15 | 47:7,8,9,12,17 | 48:11,17 56:3,14 |
| tremendous 74:6 | 35:2 43:7,10 | 36:12 39:14 | 47:18,19,20 | 57:16 63:13,22 |
| tried 23:22 | 50:2 56:6 60:16 | 41:20 44:17,20 | 48:18,19 | 4:22 67:2 77:3 |
| truck 75:7 81:20 | 61:13 | 45:10,21,23 | Waukegan 31:23 | 80:11 |
| 81:22 82:4,5 | unit 58:3,17,22 | 46:15 47:19 | 31:24 32:5,15 | Woodford 24:5 |

L.A. Court Reporters, L.L.C.

312-419-9292

| work 9:19 10:4 | $103: 1677: 13$ | $20030: 7$ | 415 2:20 | 9 |
| :---: | :---: | :---: | :---: | :---: |
| 17:13 19:10 | 100 1:17 | 20005 3:7 | 435 29:5 | 9:00 1:19 |
| worked 82:24 | 1004 2:8 | 2019 26:2 34:21 | 442 24:22 | 977-5646 2:20 |
| 83:4,22 | 107 29:2,4 | $2023: 8$ | 48 22:6 | 99 23:1 |
| workforce 9:4 | 1100 3:6 | 2020 21:6 24:18 | 488 19:19 21:8 | 99.2 30:3 |
| working 33:17 | 112.3 21:13 | 27:4 31:21 55:8 | 62:15 |  |
| 80:21 | $11324: 17$ 54:20 | 55:10 57:16 | - 5 |  |
| works 84:18 | 12 27:16 | 59:6,12 62:8,9 | $\frac{5}{505.18 .19}$ |  |
| workshop 10:14 | $123.534: 15$ | 67:22 68:3 | 5 25:18,19 28:17 |  |
| worse 82:1,11 | 13 6:4,5 25:7 | 78:20,24 | 32:2,10,11 42:23 |  |
| wouldn't 69:15 | 13-15 1:5 7:4 | 2021 17:23 52:19 | 50 73:16,18 |  |
| writing 53:1 | 17:21 72:15 | 56:22 57:21,24 | $50073: 15$ |  |
| written 14:20 | 1300 2:18 | 60:23 61:11 | 51 21:6,6 |  |
| wrote 17:22 33:16 | 1305 20:2 | 2022 53:8 58:4 | 514 19:24 21:11 |  |
| X | 138 24:22 | 2023 1:18 7:6,6 | 21:12 64:8 |  |
|  | 147:6 | 61:3,13 62:12 | 53 59:4 |  |
| X 5:1 6:1 | $14.134: 2$ | 67:21 68:1 | 54 62:6 |  |
| Y | $141.430: 7$ | 2101 2:17 | 555 $23: 4$ $\mathbf{5 6 . 2} 22.6$ |  |
| yeah 23:20 28:8 | 83:5 |  | $56.734: 9$ |  |
| 28:19 32:4,12 | 15th 1:18 | 2721:10 | 560,000 34:20 |  |
| 33:10 37:6,8 | 16 80:24 | 274 22:9 | - |  |
| 40:12,16 42:12 | 160.6 34:16 | $2832: 21$ | 6 |  |
| 44:6 48:1,19 | 1729:16 | 28.634 .5 | 672:14 |  |
| 50:22 51:15 | $17022: 4$ | 282-9119 2:10 | 60091 2:9 |  |
| 55:16 61:8,15 | 1801 6:4 8:11,13 | 2931:17 49:13 | 60603 3:17 |  |
| 64:12 70:3 | 8:16 13:5,12,13 | 296-8800 3:8 | 62.325:12 |  |
| yearly 12:10 | 36:22 | 299 33:22 | 62.729:24 |  |
| $\begin{array}{r} \text { years 80:21,22,24 } \\ 82: 2483: 5,22,23 \end{array}$ | 1802 6:5 13:18,20 |  | 64612 2:19 |  |
| $\begin{aligned} & 82: 24 ~ 83: 5,22,23 \\ & 84: 13 \end{aligned}$ | $14: 6,736: 23,24$ $37 \cdot 268 \cdot 19$ | $\frac{3}{318: 10 ~ 24: 9,10}$ | 7 |  |
| yesterday 7:5 | $37: 268: 19$ $79: 10,14,15$ | $54: 2178: 10$ | 75:4 |  |
| 75:22 76:14 | $186.3 \text { 25:16 }$ | 80:19 | 71 5:6 |  |
| Z | 19.7 25:6 | 300 18:1 | 79 6:5 23:3 |  |
| ZIP 16:19 39:19 | 191 24:19 | 303 18:1 19:17 | 79.3 34:11 |  |
| Zoom 37:23 | 2 | 55:2,13 62:11,14 | 8 |  |
|  |  |  | 8 6:4 32:11,11 |  |
| 0 | 2 16:22,23 17:20 | $32.925: 7$ | 33:16,20 |  |
| 04 80:6 | 18:10, $1119: 12$ $20: 3,14$ | $3475: 5$ | 82254 17:21 |  |
| 084-004445 1:24 | 20:3,14 21:17 41:17 54:17,22 | $377.4 \text { 22:24 }$ | 82258 72:15 |  |
| 1 | 54:24 59:1 62:5 | 39.8 29:20 | $\text { 83 32:21 } 33: 19$ |  |
| 1 14:5,8 49:15 | $\begin{aligned} & \text { 62:10 63:18 } \\ & 69: 778: 10,1 \end{aligned}$ | 4 | 84 24:1 $25: 13$ |  |
| 59:2 62:4 $\mathbf{1 : 0 3} 80: 5$ | 20 83:22,23 | 423:6,6 | 84.1 25:13 |  |
| 1:03 80:5 | 20 83:22,23 | 4.3 20:7,12 |  |  |

L.A. Court Reporters, L.L.C.

312-419-9292


[^0]:    L.A. Court Reporters, L.L.C.

[^1]:    L.A. Court Reporters, L.L.C.

[^2]:    L.A. Court Reporters, L.L.C.

[^3]:    L.A. Court Reporters, L.L.C.

[^4]:    L.A. Court Reporters, L.L.C.

[^5]:    L.A. Court Reporters, L.L.C.

[^6]:    L.A. Court Reporters, L.L.C.

[^7]:    L.A. Court Reporters, L.L.C.

[^8]:    L.A. Court Reporters, L.L.C.

[^9]:    L.A. Court Reporters, L.L.C.

[^10]:    L.A. Court Reporters, L.L.C.

[^11]:    L.A. Court Reporters, L.L.C.

[^12]:    L.A. Court Reporters, L.L.C.

[^13]:    L.A. Court Reporters, L.L.C.

[^14]:    L.A. Court Reporters, L.L.C.

[^15]:    L.A. Court Reporters, L.L.C.

[^16]:    L.A. Court Reporters, L.L.C.

[^17]:    L.A. Court Reporters, L.L.C.

[^18]:    L.A. Court Reporters, L.L.C.

[^19]:    L.A. Court Reporters, L.L.C.

[^20]:    L.A. Court Reporters, L.L.C.

[^21]:    L.A. Court Reporters, L.L.C.

[^22]:    L.A. Court Reporters, L.L.C.

[^23]:    L.A. Court Reporters, L.L.C.

[^24]:    L.A. Court Reporters, L.L.C.

[^25]:    L.A. Court Reporters, L.L.C.

[^26]:    L.A. Court Reporters, L.L.C.

