

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INDUCTEV, INC.,

Petitioner,

v.

WITRICITY CORPORATION

Patent Owner.

Case IPR2023-01208

U.S. Patent No. 8,912,687

Zoom Deposition of MARK ALLEN, Ph.D.

(Taken by the Patent Owner)

Philadelphia, Pennsylvania

Tuesday, May 7, 2024

Reported by: Marisa Munoz-Vourakis -
RMR, CRR and Notary Public

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17 Zoom Deposition of MARK ALLEN, Ph.D., taken
18 by the Patent Owner, at Philadelphia, Pennsylvania, on the
19 7th day of May, 2024 at 8:38 a.m., before Marisa
20 Munoz-Vourakis, Registered Merit Reporter, Certified
21 Realtime Reporter and Notary Public.
22
23
24
25

I N D E X

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DEPOSITION EXHIBITS

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P R O C E E D I N G S

Whereupon, MARK ALLEN, having
been first duly sworn testifying
was examined and testified as follows:

EXAMINATION BY COUNSEL FOR PATENT OWNER
BY MR. CORBETT:

Q. Good morning, Dr. Allen.

A. Good morning.

Q. My name is Ryan Corbett, and I represent
Witricity in this IPR proceeding.

Will you please state your name for the
record?

A. Yes, my name is Mark Allen.

Q. And you've been deposed before, Dr. Allen?

A. I have.

Q. About how many times?

A. I don't recall exactly, but probably three
or four times.

Q. Okay. So I know you've done this before,
and you've probably heard some of the housekeeping
things at the beginning, but I just want to go over a
few pointers or guidelines for today's deposition.

I'll be asking you a series of questions.
If there's any questions that you don't understand,
please ask for clarification. Is that fair?

1 A. Yes.

2 Q. Okay. So if you don't ask for
3 clarification, I'll assume that you understand the
4 question. Is that fair?

5 A. Yes.

6 Q. Okay. As the court reporter mentioned
7 before we went on the record, we need verbal answers,
8 no head shakes or head nods. So as you mentioned
9 before, please give verbal answers to my questions.

10 Are you taking any medications today that
11 might impair your ability to testify?

12 A. No.

13 Q. Okay. I'll try to take breaks about every
14 hour. I would just ask though that if there's a
15 pending question, that you finish your answer to the
16 question before we take a break. Is that fair?

17 A. Yes.

18 Q. Okay. What did you do to prepare for
19 today's deposition?

20 MR. DAVIS: I would just caution
21 Dr. Allen that he can provide sort of a high
22 level review, but please be cognizant of
23 privilege and don't reveal the contents of
24 any conversations you may have had with
25 counsel.

1 THE WITNESS: Very well.

2 A. I reviewed my expert declaration. I
3 discussed the expert declaration with counsel, and then
4 I reviewed one more time in preparation for this
5 morning.

6 Q. Did you review any other documents besides
7 your declaration?

8 A. Some of the exhibits were also reviewed.

9 Q. Do you recall which ones?

10 A. I believe the actual petition and several
11 of the references, but I'm sure there were more.

12 Q. Did you speak to anyone else besides
13 counsel to prepare for the deposition?

14 A. No.

15 MR. CORBETT: Marisa, if you can
16 please mark Exhibit 1003 and Exhibit 1004.

17 (The document referred to was marked
18 Deposition Exhibit Number 1003 for
19 identification.)

20 (The document referred to was marked
21 Deposition Exhibit Number 1004 for
22 identification.)

23 Q. Dr. Allen, you have copies of Exhibits 1003
24 and 1004, correct?

25 MR. DAVIS: And I'll just clarify, in

1 case it isn't clear for Dr. Allen,
2 Exhibit 1003 is your declaration.

3 THE WITNESS: Okay.

4 A. Yes, I have copies of both 1003 and 1004.

5 BY MR. CORBETT:

6 Q. Right. And for the record, 1004 is a copy
7 of your CV, is that right?

8 A. That's correct.

9 Q. Okay. In Exhibit 1004, your CV, is that a
10 current CV?

11 A. It is current as of when I submitted the
12 report, which was, I guess, nine months ago. So there
13 may be a few publications that have come out since
14 then, but it's primarily current.

15 I guess one substantive thing that has
16 changed since I submitted the CV is that I did become
17 chair of the electrical and systems engineering
18 department at Penn, so that's not listed on the CV.

19 Q. And what are your job responsibilities in
20 your current role at the University of Pennsylvania?

21 A. So they're primarily three: Performing
22 research with undergraduate and graduate students,
23 teaching both undergraduate and graduate classes, and
24 then what we broadly classify as service; so this would
25 be participating in conferences, the community, doing

1 administrative work, like being a chair of the
2 department, things like that.

3 Q. What courses are you currently teaching?

4 A. So last semester I taught a course in
5 nanotechnology for first-year graduate students, and
6 this semester I'm teaching a course in semiconductor
7 device physics, or, again, intended for first-year
8 graduate students.

9 Q. What other classes have you taught over the
10 last let's say five years?

11 A. Let's see, I can't remember if it has been
12 exactly five years, but I have taught classes in
13 micro-electromechanical systems, and I have taught what
14 I would call undergraduate versions of the
15 nanotechnology course intended for more nonspecialists.

16 Q. Have you ever taught any classes that
17 relate to wireless power transfer?

18 A. So I have taught some years ago classes in
19 circuits that incorporate, you know, electromagnetics
20 and so on. It's not a course in electromagnetics, but
21 most of my interest in wireless power transfer is more
22 on the research side.

23 Q. And what research have you done in that
24 area?

25 A. So I've written several papers on wireless

1 power transfer. They should be listed in my CV.

2 We have worked in the area of magnetics for
3 decades, looking at ways that microfabrication
4 technology can enhance magnetics, including inductors,
5 transformers, wireless power transfer and so on.

6 And we have commercialized biomedical
7 devices that rely on wireless power transfer for their
8 operation to get power and information in and out of
9 the body.

10 Q. Has any of your research focused on
11 wireless power transfer in the context of electric
12 vehicles?

13 A. Not directly, no.

14 Q. How about any courses that you've taught?
15 Have they related to any applications of wireless power
16 transfer for electric vehicles?

17 A. For electric vehicles, I'm trying to think
18 if we used that as an example. I don't recall, but if
19 we did, it would have been at a relatively elementary
20 level.

21 Q. Prior to your teaching at University of
22 Pennsylvania, you were a professor at Georgia Tech, is
23 that right?

24 A. That's correct.

25 Q. Okay. Did any of your courses that you

1 taught at Georgia Tech relate to wireless power
2 transfer?

3 A. That was a little while ago. So I have
4 taught, as I said, courses in circuit theory that
5 utilize what today would be called wireless power
6 transfer. There was loose magnetic coupling, things
7 like that. I'd have to -- honestly speaking, I'd have
8 to go back and review that. That was a little while
9 ago.

10 Q. Understood. How about any of your research
11 that you conducted at Georgia Tech, did any of that
12 research relate to wireless power transfer?

13 A. It did.

14 Q. Can you provide some more detail on that
15 research?

16 A. Well, I think there are several, several
17 papers in my CV that talk about wireless power
18 transfer, different ways of fabricating and utilizing
19 coils for efficient wireless power transfer, using
20 magnetics to enhance wireless power transfer. The
21 biomedical device that I mentioned was also developed
22 while I was at Georgia Tech.

23 Q. In your CV, there's a list of almost 60
24 patents that you are a named inventor on. Do any of
25 those patents relate to wireless power transfer?

1 A. Yes, they did.

2 Q. Are you able to identify which ones?

3 A. There are several that utilize wireless
4 power and energy transfer. I guess the one that I can
5 think of is, off the top of my head, is the '520 Patent
6 that talks about system for measuring wireless --
7 wirelessly measuring physical properties using energy
8 transfer. And then there are a number of patents that
9 sort of grew. There's a family of patents that sort of
10 grew out of that, that patent that was subsequently
11 issued.

12 Q. Have you been retained as an expert witness
13 in either an IPR or a district court patent litigation?

14 A. I have.

15 Q. And did any of those prior proceedings
16 relate to wireless power transfer?

17 A. One of them did, yes.

18 Q. Can you provide some detail about that
19 case?

20 A. I'm not -- so the short answer is yes.
21 Longer answer is I'm not sure what is, what is
22 privileged and what isn't. So please forgive me if
23 it's somewhat vague.

24 It was a case involving wireless power and
25 data transfer for a cochlear implant.

1 Q. And was that an IPR or district court case
2 or both?

3 A. Honestly speaking, I don't remember. I did
4 not go to district court, that I would remember,
5 obviously; but I don't remember if it was an IPR case
6 or if it was on its way to district court.

7 Q. Were you retained by the patent owner or
8 the patent challenger in that case?

9 A. The owner.

10 Q. Is that case about cochlear implants that
11 you mentioned, is that the only case that you've been
12 retained as an expert in that relates to wireless power
13 transfer?

14 A. Other than on some of the current cases
15 that we are all involved in, I believe that is correct.

16 Q. Right. The current cases, just to clarify,
17 are the Witricity versus Inductev cases, correct?

18 A. I believe so. I think it may have been a
19 different name earlier, but they were all Witricity
20 cases, yes.

21 Q. Your Ph.D. was from MIT, is that right?

22 A. That is correct.

23 Q. And what was your Ph.D. in?

24 A. It was at the intersection of chemical and
25 electrical engineering, and mostly dealt with the

1 application of microfabrication to make mechanical and
2 electrical structures, as opposed to say transistors.

3 Q. What was your Ph.D. dissertation about?

4 A. I'm sorry, what was my Ph.D. dissertation?

5 Q. About.

6 A. Oh. So it was trying to understand how we
7 could build mechanical structures that would allow us
8 to investigate the adhesion of certain films that are
9 commonly used in microelectronic and fabrication
10 packaging.

11 So it was building the structures, testing
12 them to measure adhesion and then correlating those
13 results with spectroscopic properties of the interface.

14 Q. So it would be fair to say that your Ph.D.
15 dissertation did not relate to wireless power transfer?

16 A. My Ph.D. dissertation did not have elements
17 of wireless power transfer.

18 Q. You also got your master's degree from MIT,
19 is that right?

20 A. That's correct.

21 Q. And what was your master's thesis about?

22 A. It was a more elementary study of a similar
23 topic as the Ph.D. thesis.

24 Q. Other than what we've already talked about
25 in your background, do you have any other experience

1 with wireless power transfer?

2 A. Most of my early experience with wireless
3 power transfer was through microfabricated magnetics,
4 which is a project that I started in 1990, I would say,
5 and has, in some form or another, continued
6 continuously throughout the research program until
7 today.

8 Q. And what aspects of wireless power transfer
9 were you working on in that project or have you been
10 working on in that project?

11 A. So our interest was incorporating magnetic
12 materials and what we would call three-dimensional
13 structures, like windings and coils into
14 microfabricated or small-scale elements or even using
15 those same technologies at the larger scale, like the
16 printed circuit board level, things like that, to build
17 magnetic components. And some of those components were
18 inductors, some were transformers, some were intended
19 for wireless power transfer.

20 Q. Is there any other wireless power transfer
21 experience that you have that we haven't already
22 discussed?

23 A. We're currently doing a second wireless
24 power transfer project for another biomedical sensor,
25 this one intended to be installed in the fingertip to

1 allow the reanimation or the -- allow people who have
2 lost the sense of touch to be able to regain that sense
3 of touch. I bring that up because it's a fairly
4 recent. The publication may not be in the exhibit.

5 But sitting here today, I believe that we
6 have covered the examples.

7 Q. So I'd like to turn now to your declaration
8 that you submitted in connection with this IPR, and
9 that is Exhibit 1003. Do you have that one in front of
10 you?

11 A. I do.

12 Q. And it's your opinion that Claims 1 through
13 18 of the '687 Patent are obvious in view of two prior
14 art references, Cook and Bennett, is that correct?

15 MR. DAVIS: Mr. Corbett, aren't we
16 doing the '719 IPR first? I thought that's
17 what it was. Are you planning to do the
18 '687 first?

19 MR. CORBETT: Yeah, I had sent an
20 email yesterday to you guys about doing the
21 '687 first.

22 MR. DAVIS: Okay. I think I may have
23 missed -- oh, I see, okay. I got the link.
24 I didn't realize that you had added some
25 text at the beginning about -- okay. Okay.

1 I think that should be fine, assuming it's
2 okay for Dr. Allen. I think that's the
3 reverse of what it was in the prior
4 correspondence.

5 MR. CORBETT: That is, you're correct.

6 Q. Dr. Allen, is that all right if we proceed
7 with the '687 Patent first?

8 A. Yes, it's fine, but I may need a minute,
9 because that's not the one that I have in front of me.
10 So if you can give me a minute to get the other one,
11 that would be helpful.

12 MR. CORBETT: Sure thing.

13 MR. DAVIS: Take a quick five-minute
14 break.

15 MR. CORBETT: Marisa, if we can take a
16 five-minute break, that would be great.

17 (Off the record at 9:01 p.m.)

18 (On the record at 9:06 a.m.)

19 BY MR. CORBETT:

20 Q. Dr. Allen, apologies for the confusion on
21 which of the patents we're talking about.

22 The Exhibit 1003 is your declaration that
23 you submitted in connection with the IPR regarding
24 Patent Number 8,912687, is that right?

25 A. I'm not sure I understand the question.

1 That's what I have in front of me now, '687
2 declaration.

3 Q. Correct. That was my question. That's the
4 Exhibit 1003 that you have in front of you?

5 A. Okay.

6 Q. And in that declaration, you provide your
7 opinions that the Claims 1 through 18 of the '687
8 Patent are obvious in view of Cook and Bennett prior
9 art references, is that right?

10 A. I think it's Cook in view of Bennett,
11 that's correct.

12 Q. And in the '687 Patent, there's three
13 independent claims; Claims 1, 7 and 13, is that right?

14 A. Yes.

15 Q. Okay. And in your declaration, you focus
16 mostly on Claim 13; and your analysis for Claims 1 and
17 7 is essentially the same as for Claim 13, is that
18 right?

19 A. Well, I mean, I can look and read them, but
20 I think I've laid it out pretty clearly in the report
21 the differences between the three.

22 Q. Okay. Well, if you can turn to page 66 in
23 your declaration, that's the beginning of your analysis
24 that is specific to Claim 13, is that right?

25 MR. DAVIS: Can you say the paragraph

1 number one more time?

2 MR. CORBETT: Sorry, I said page 66.

3 It's paragraph 124.

4 A. That's the beginning of discussing the
5 details of independent Claim 13.

6 Q. Okay. And so what I'd like to do is walk
7 through the different elements of Claim 13, just so I
8 can get an understanding of which reference you're
9 relying on for each of the claim elements.

10 So starting on the bottom of page 66 to the
11 top of 67, that's discussing the preamble of Claim 13,
12 is that right?

13 A. Yes.

14 Q. Okay. And it's your opinion that Cook
15 discloses the preamble of Claim 13, correct?

16 A. I believe I say the Cook/Bennett
17 combination taught the preamble, yes.

18 Q. Right. That's paragraph 125, and then
19 paragraph 126 you cite to Cook, correct?

20 A. Correct.

21 Q. Okay. But you don't cite to Bennett for
22 the preamble at this part of your declaration, right?

23 A. Not in paragraph 126, no.

24 Q. Okay. Just below that in paragraph 127,
25 you say that the Cook/Bennett or the Bennett/Cook

1 combination teaches what you call Element 13[a] of the
2 '687 Patent, is that right?

3 A. That's right.

4 Q. Okay. And which reference are you relying
5 on for disclosing this Element 13[a]?

6 A. Well, I think, you know, as I said, it's
7 really the combination of these two elements. But, you
8 know, if I look at paragraph -- or excuse me, the
9 combination of these two, or these two prior art
10 references. But if I look at the underlying paragraph
11 128, Cook is disclosing in Figure 1 a power supply.

12 Q. Right. And you don't cite to any portion
13 of Bennett for disclosing Element 13[a], is that right?

14 A. In paragraph 128, no.

15 Q. Or in paragraph 129 that follows it, is
16 that also true?

17 A. I don't mention Bennett in paragraph 129.

18 Q. So are there other parts of your
19 declaration where you're citing Bennett as disclosing
20 Element 13[a]?

21 A. That I'd have to read through and check,
22 but not in this section.

23 Q. Okay. At the bottom of page 68, you
24 discussed Element 13[b], which relates to a first
25 electromagnetic resonator. Do you see that?

1 A. I do.

2 Q. And which reference are you relying on for
3 disclosing Element 13[b]?

4 A. So it's the Cook/Bennett combination again,
5 as I state in paragraph 131.

6 Q. Okay. And paragraphs 132 through 135 you
7 only discuss Cook though, correct? Not Bennett?

8 A. I'm just taking a look through.

9 Bennett is not discussed in paragraphs 132
10 to 135. There is a reference to Cook 086, which is
11 incorporated by -- stated as incorporated by reference.

12 Q. In paragraph 136, you discuss how Bennett
13 discloses Element 13[b] sub 1, is that right?

14 A. Yes, saying that they are similar, that's
15 correct.

16 Q. Why is it that you cite to Cook for Bennett
17 for allegedly disclosing this Element 13[b]i?

18 A. I think both of those prior art references
19 have element -- or discuss an element such as 13[b]i.

20 Q. So in this portion of your declaration, is
21 it your opinion that the combination of Cook and
22 Bennett discloses 13[b]i or each of the references
23 independently disclose Element 13[b]1?

24 A. I think it's more that both Cook and
25 Bennett are directed at the same field of endeavor, and

1 so it's sort of logical to combine those two in this
2 case.

3 Q. So, okay, for Element 13[b]1 though, is it
4 your opinion that Cook does not disclose any portion of
5 Element 13[b]1?

6 A. I don't think I stated that. I'm sorry, I
7 lost the question. Were you asking about Cook or
8 Bennett?

9 Q. Cook.

10 A. So Cook in Figure 1, which is on page 70,
11 shows a first electromagnetic resonator coupled to a
12 power supply.

13 Q. So it's your opinion that Cook by itself,
14 without any combination with Bennett, discloses Element
15 13[b]1, is that correct?

16 A. So Cook discloses a first electromagnetic
17 resonator coupled with a power supply.

18 Bennett also discloses a sending resonant
19 coupling component. I'm looking at paragraph 136.

20 Q. So it's your position that each of the
21 references, Cook and Bennett, disclose this Element
22 13[b]1, is that right?

23 A. I believe each of these references
24 possesses an element that, yes, reads on 13[b]i.

25 Q. So let's go through the same questions on

1 13[b]ii.

2 Is it your position that Cook discloses
3 13[b]ii independent of Bennett?

4 A. So Cook discloses, and I'm referring to
5 paragraph 138 of my report, that Cook had -- discloses
6 an LC resonant circuit, and resonate circuit would have
7 a resonant frequency associated with it, which I
8 believe is the Element 13[b]ii.

9 Q. And you're not relying on Bennett for
10 teaching Element 13[b]ii, correct?

11 A. I mean, it's hard for me to sort of come in
12 and, you know, separate those two things, because I did
13 read them together.

14 So really probably give the best answer, I
15 would probably have to go back and look at Cook in
16 great detail, Bennett in great detail and see no, this
17 is only here, this is only there, what have you. It's
18 really been more the combination that I focused on in
19 the report. So sorry about being unclear there.

20 Q. For Element 13[b]iii, this is on page 73 of
21 your declaration, it starts with paragraph 140 relating
22 to intrinsic loss rate. Are you relying on Cook for
23 this -- for disclosing this feature?

24 A. Again, it's -- I'm relying on the
25 Cook/Bennett combination, as I mentioned in paragraph

1 140.

2 Q. Let's go ahead and skip a little bit to
3 your declaration to paragraph 162, which is on page 88
4 of your declaration.

5 A. Yes, I have it.

6 Q. Okay. So what portion of Cook are you
7 relying on here for disclosing Element 13[d]?

8 A. So I've discussed that starting in
9 paragraph 165, where out of the Cook/Bennett
10 combination, I talk about the Cook's receiving magnetic
11 resonant antenna, as shown in the annotated Figure 1.

12 Q. And in that paragraph 165, you reference
13 Element number 110 of Cook. Do you see that?

14 A. I do.

15 Q. Okay. So is it your position that Element
16 110 of Cook corresponds to the second electromagnetic
17 resonator in Claim 13D?

18 A. I think that's part of it, because then we
19 also have the capacitor that makes the magnetic loop
20 resonant. I think the capacitor is 112.

21 Q. Right. So it's the combination of loop 111
22 and capacitor 112 that corresponds to the claim's
23 second electromagnetic resonator, in your opinion,
24 correct?

25 A. Yes, that is right.

1 Q. If you can flip ahead to page 94 of your
2 declaration. At the top, you begin discussing Element
3 13[e]. Do you see that?

4 A. I do.

5 Q. And in paragraphs 174 and 175, you discuss
6 Cook, correct?

7 A. Yes, that's correct.

8 Q. What portions of Cook, in your opinion,
9 disclose this Element 13[e]?

10 A. Well, I think, if I look at paragraph 174,
11 when Cook's magnetic resonant antenna comes into the
12 range of an appropriate transmitter, the wireless
13 coupling allows the transfer of energy to the magnetic
14 resonant antenna.

15 Q. So is it your opinion that that portion of
16 Cook discloses this Element 13[e]?

17 A. I think Cook explains -- both Cook and Cook
18 086 explain this entire mechanism of coupling between
19 two resonators, and so also contribute to understanding
20 that claim element.

21 Q. In your view, is there any portion of
22 Element 13[e] that is not disclosed by Cook?

23 A. So I did rely on, you know, the
24 Cook/Bennett combination to look at this claim element.

25 So I would have to rethink that, you know,

1 go back and see is it only Cook that discloses this? I
2 haven't done that analysis.

3 Q. In paragraph 177, you say that a person of
4 skill in the art would have understood Bennett's system
5 is compatible with Cook's wireless power transfer.

6 Do you see that?

7 A. I do.

8 Q. So are you relying on a combination of a
9 teaching from Bennett and a teaching from Cook to
10 disclose Element 13[e]?

11 A. I think in my analysis, I'd say that
12 Bennett and Cook reinforce each other when it comes to
13 teaching this element. Bennett also describes, you
14 know, the resonant power charging module and receiving
15 resonant coupling component and so on, which is very
16 similar to the Cook device.

17 Q. Let's move to the last element of Claim 13,
18 that's Element 13[f], and you discuss that on page 98
19 of your declaration. Do you see that?

20 A. I do.

21 Q. Is it your opinion that Cook, by itself,
22 discloses this Element 13[f]?

23 A. So I believe it's better to say that it's
24 the combination.

25 I say in paragraph 179 that Cook provides

1 the basics, and then in paragraph 180, you know,
2 Bennett provides additional implementation details.

3 Q. When you say that Cook provides the basics,
4 could you explain that? What you mean by that?

5 A. Yes, I think that, you know, Cook states,
6 and I'm looking now at paragraph 179, Cook states that
7 the charger initiates power transfer if an encrypted
8 value for the vehicle ID agrees with the proper
9 encryption code and proper token time, which is a
10 general description of an authorization facility.

11 And then Bennett provides, you know,
12 additional detail about how one might implement that,
13 that facility.

14 Q. The claim element you restate in paragraph
15 178 says: An authorization facility to confirm
16 compatibility of the resonators and provide
17 authorization for initiation of transfer of power.

18 Do you see that in paragraph 178?

19 A. I do.

20 Q. Is it your opinion that Cook discloses each
21 portion of that claim element?

22 A. Again, I'm sorry, I really did this
23 analysis in the context of the combination of these, of
24 these two. I'd have to go back and review Cook alone
25 to answer that well.

1 Q. In paragraph 179, you point to several
2 portions of Cook, as you mention here in 179, provide
3 the basics of an authentication system.

4 Do you see that?

5 A. I do, yes.

6 Q. So are there any aspects of 178, actually
7 let me start over and strike that question.

8 So the Element 13[f] says that there's an
9 authorization facility to confirm compatibility of the
10 resonators. Do you see that?

11 A. I do.

12 Q. So is it your position that Cook discloses
13 that element feature of 13[f]?

14 A. So I don't recall if Cook explicitly states
15 confirm compatibility of the resonators, or if it's
16 implied through the compatibility of the vehicle ID. I
17 would have to go back and relook at Cook.

18 Q. How about for the second aspect of Element
19 13[f], providing authorization for initiation of
20 transfer of power? Is it your opinion that Cook
21 discloses that portion of Element 13[f]?

22 A. So Cook does say the charger only initiates
23 power transfer; and, again, I'm reading 179: If an
24 encrypted value for the vehicle ID agrees with the
25 proper encryption code and token time.

1 So given that language, Cook does provide
2 authorization for the initiation of transfer of power.

3 Q. If we can flip backwards in your
4 declaration, back to paragraph 32 that is on page 11.

5 Doctor, are you there?

6 A. Yes.

7 Q. Okay. So in paragraph 32, you say: In
8 analyzing obviousness, I understand that it's important
9 to consider the scope of the claims, among other
10 things, that you list there. Do you see that?

11 A. I do.

12 Q. Okay. And how did you consider the scope
13 of the claims when you were looking at the '687 Patent?

14 A. I guess I don't quite understand your
15 question. Could you reask that?

16 Q. Sure. How did you determine the scope of
17 the claims of the '687 Patent when you were conducting
18 your analysis?

19 A. So trying to understand within the context
20 of the '687's specification what the meanings of the
21 claim language would be and what areas would be covered
22 by those claims.

23 Q. On page 39 of your declaration, bottom of
24 39, and then on to the top of page 40, you have a
25 section called claim construction. Do you see that?

1 A. I do.

2 Q. Okay. And at the beginning of paragraph
3 82, you say: In my analysis, I have applied the plain
4 meaning of every return that appears in the challenge
5 claims. Do you see that?

6 A. I do.

7 Q. Anywhere in your declaration do you state
8 what the plain meaning is for any of these claim
9 elements of Claim 13?

10 A. So I define plain meaning, right, as the
11 meaning that a person of ordinary skill would have
12 understood the term to mean at the time of the patent.

13 Q. Right. For any claim elements of the '687
14 Patent claims, did you articulate what that plain
15 meaning is for any particular claims?

16 MR. DAVIS: Objection.

17 A. Did I write in my report the plain meaning
18 of this term? Is this and then -- rephrase it in
19 another way. I don't recall that I did that.

20 Q. So if we can go back to where we were a
21 moment ago, paragraph 178, it addresses this
22 authorization facility element.

23 A. Got ya.

24 Q. So in doing your analysis, you applied the
25 plain meaning of Element 13[f], correct?

1 A. Yes.

2 Q. And so what is the plain meaning of this
3 Element 13[f]?

4 A. So to someone at that time, the plain
5 meaning would be a way to confirm that the device,
6 automobile, whatever it is, that is trying to receive
7 energy, is allowed and powered, authorized to do so.

8 Q. And what's the basis for your opinion
9 regarding the plain meaning that you just stated?

10 MR. DAVIS: Objection to form.

11 A. So I believe that it's what I said earlier,
12 that this would be what someone of ordinary skill in
13 the art would have applied.

14 Q. I'd like to mark Exhibit 1001, which is the
15 '687 Patent.

16 (The document referred to was marked
17 Deposition Exhibit Number 1001 for
18 identification.)

19 Q. Dr. Allen, do you have that one handy?

20 A. I do.

21 Q. And if I can direct your attention to
22 column 102 of the '687 Patent, the first full
23 paragraph, it starts around line 14.

24 A. Sorry, this is pretty long. It might take
25 me a second. Sorry, you said column 102, line?

1 Q. 14.

2 A. 14, okay. I see it, yes.

3 Q. And line 14 says: The source and device
4 may include authentication capability.

5 Do you see that?

6 A. I do.

7 Q. In your view, is this -- that line and the
8 subsequent few lines discussing the same authorization
9 facility that's in Element 13[f]?

10 A. So I feel as if authorization could be
11 broader than just authentication. But this, and
12 perhaps elsewhere in this patent, this is quite long,
13 does describe authentication capability, yes.

14 Q. In line 15 of column 102, it says:
15 Authentication may be used to ensure that only
16 compatible sources and devices are able to transmit and
17 receive power. Do you see that?

18 A. I do.

19 Q. Do you have an understanding of what that
20 sentence means?

21 MR. DAVIS: Objection, form.

22 A. So it might be helpful if you could specify
23 a little more clearly? Like understanding in terms of
24 defining what authentication means? Understanding in
25 terms of -- sorry.

1 Q. Sure. Just that sentence that starts on
2 line 15 and ends on the beginning of line 17, I just
3 wanted to know if you have an understanding of what
4 that means?

5 A. So I think it could mean several things.

6 One thing that it can mean is that you want
7 to make sure that only the devices that are entitled to
8 receive power receive power.

9 It could also mean that you want to make
10 sure that only devices that can compatibly interface
11 with the power source receive power, and there can be
12 other similar meanings.

13 Q. When you said entitled, what did you mean
14 by that?

15 A. Authorized; allowed.

16 Q. And can you provide an example of how a
17 device would be authorized or entitled or allowed to
18 transfer power?

19 A. Well, I think if I were to think about
20 something outside the context of this patent, I would
21 think about a modern vehicle charging station, where I
22 pull an electric car up to a charger and it will not
23 put any electricity into my car until I pay. I mean,
24 that's probably a bad example, because it's not within
25 the context of this work, but it's an example.

1 Q. You also mentioned that that sentence could
2 mean that the resonators are compatibly interfaced, if
3 I recall your testimony correctly. Could you explain
4 what you mean by compatibly interfaced?

5 A. Well, suppose, for example, and this is
6 just an example, one brand of car or a device that's
7 receiving power operates at a different resonant
8 frequency than the transmitter, it wouldn't result in
9 as efficient power transfer in that case. So if the
10 resonator on the vehicle and the resonator at the
11 charging station operated at different resonant
12 frequencies, those would not be compatibly interfaced,
13 in your view?

14 MR. DAVIS: Objection.

15 A. In my view --

16 THE WITNESS: I'm sorry, did I --

17 MR. DAVIS: Oh, I just was putting an
18 objection, just objection foundation.

19 A. So I'm sorry, could you repeat the
20 question? I lost it there.

21 Q. Yeah. So you mentioned an example in which
22 a certain type of vehicle may operate at a resonant
23 frequency that's different than the resonant frequency
24 of the charger, do you recall that? Can you hear me?

25 A. Sorry, you cut out there.

1 Q. Yeah, so I was following up on the example
2 you gave. You mentioned an example in which a vehicle
3 may operate at one resonant frequency, and that may be
4 different than the resonant frequency of the charger.
5 Do you recall that example?

6 A. Yes.

7 Q. Okay. So that example was, in your view,
8 an example of two resonators that would not be
9 compatibly interfaced, is that right?

10 A. So it would probably be better to say
11 optimally interfaced, because, of course, power
12 transfer can occur even if off resonance. But I would
13 imagine that the owner of the vehicle would prefer to
14 find a charging station that would be more optimally
15 interfaced.

16 Q. Okay. So it could be the two resonators
17 could be compatible, even if they're not optimally
18 interfaced, is that right?

19 A. I think compatibility will be defined by
20 the authenticator, right. The authenticator will
21 decide what subset of vehicles he or she would like to
22 provide power to.

23 And I think rather than defining it
24 completely in technical terms, we should also think
25 about those operational terms.

1 Q. So by that do you mean verifying that the
2 vehicle is allowed or authorized to receive the power
3 transfer?

4 A. So the vehicle -- the provider of power I
5 would think, I mean, this would be one way to do it,
6 right, the provider of power would have a list of
7 vehicles that they would be willing to power and would
8 utilize the authentication facility to make sure that
9 the vehicles on that list would be the ones to receive
10 power, and there could be many reasons for being on the
11 list, technical incompatibility being one. I think
12 that's what I'm trying to say.

13 Q. So is there -- in your mind, is there a
14 distinction between confirming compatible resonators in
15 technical terms on one hand, and making sure that the
16 vehicle is authorized, like, you know, for example,
17 they have an account or a subscription that can be
18 charged for the power transfer? Are those kind of two
19 different things, in your view?

20 MR. DAVIS: Objection, form.

21 A. So I could imagine a scenario where your
22 car is perfectly technically compatible with the
23 charger, but you did not pay your credit card bill.

24 But I could also imagine a situation where
25 you are up to date on your credit card bill but your

1 car is a different make and model on that was not
2 contemplated to be charged by this charger.

3 So I can see both as examples of
4 authentication.

5 Q. If you turn to column 4 of the '687 Patent,
6 and specifically starting at line 18.

7 A. Yes, I see it.

8 Q. That portion of the '687 Patent says:
9 Energy exchanged between two electromagnetic resonators
10 can be optimized when the resonators are tuned to
11 substantially the same frequency and when the losses in
12 the system are minimal.

13 Do you see that sentence?

14 A. I do.

15 Q. Okay. What's your understanding of the --
16 where it says that the energy exchange is optimized?

17 A. So I think there are a couple of
18 definitions. It depends on your -- on what's most
19 important to you.

20 So I'll just give two examples. One would
21 be I want to charge as rapidly as possible, I don't
22 care about the efficiency.

23 And the other would be I care about the
24 efficiency, and I'm willing to wait as long as I like
25 in order to charge my car without wasting energy, and

1 there are other examples of optimal.

2 Q. So when it says the energy exchange is
3 optimized, you get two different variables, right,
4 speed, charges fast as you can, and then charges
5 efficiency as you can. And so is what you're saying
6 optimize could mean you maximize one of those, and that
7 would be an example of optimization?

8 A. An example.

9 Q. And how would you optimize for efficiency?

10 A. I might alter -- you know, certainly I
11 would -- I mean, it's hard to sit here and design a
12 wireless power transfer system on the fly. But in
13 general, I might try to make sure the losses in the
14 system are minimal; make sure that I'm not inducing any
15 losses in other elements extraneous to the system. And
16 I might adjust the rate of energy delivery, depending
17 on perhaps the -- how much I wanted to optimize the
18 efficiency, you know, the trickle charging versus rapid
19 charging. The latter will, in many cases, be less
20 efficient.

21 Q. In lines 18 through 21 of column 4 that we
22 were just discussing, it mentions that the resonators
23 are tuned to substantially the same frequency. How
24 does that optimize the energy exchange?

25 A. So if I am -- if I have a resonant circuit,

1 I can maximize the magnetic field, for example, that my
2 resonant circuit is generating, but driving that
3 resonant circuit at a -- at its resonant frequency.

4 And then similarly on the receiving side, I
5 would like to excite relatively large currents of
6 voltages, depending on the -- the way the receive side
7 is configured. And so in order to do that, I would
8 like the signals that I receive to be at the resonant
9 frequency of the receive side.

10 So in order to satisfy both of those
11 constraints, I'd like to have them at substantially the
12 same resonant frequency.

13 Q. If you can flip a few pages to column 23 of
14 the '687 Patent, and specifically, I believe it's line
15 7.

16 A. I see it, yes.

17 Q. Okay. It starts with note that. Do you
18 see that sentence?

19 A. I do.

20 Q. Starting there at line 7, on column 23, it
21 says that: Note that even though certain frequencies
22 and Q matching conditions may optimize the system
23 efficiency of energy transfer. These conditions may
24 not need to be exactly met in order to have efficient
25 enough energy transfer for a useful energy exchange.

1 Do you have an understanding of what that
2 sentence means?

3 A. I believe so.

4 Q. And what's that understanding?

5 A. So as we discussed, the resonance of the
6 sending coil and the receiving coil being the same
7 allows for a very good energy transfer between the two.
8 But if they are off a little bit, then I get a little
9 bit less good energy transfer, and I believe this
10 paragraph is saying that how much being off and how
11 much less good depends on your other criteria, right.
12 They talk about useful, whether it is efficient enough
13 and useful, and presumably those things are highly
14 context dependent.

15 Q. So you could have two resonators that are
16 not tuned to the same resonant frequency and still
17 accomplish energy transfer, you know, with the
18 understanding that certain applications may require,
19 you know, certain performance parameters, but you could
20 still, I guess -- let me start my question over.

21 Is it your understanding that this is
22 saying, even though two resonators may not exactly
23 match on resonant frequency, you could still accomplish
24 energy transfer?

25 A. I think that that's not what this is

1 saying.

2 I think what this is saying is if you
3 cannot achieve exact matching, you can still get some
4 useful benefit from resonance, as long as you are not
5 mismatched too much. And too much is then defined in
6 the context of what's useful and what's efficient
7 enough. I think that's different than saying -- well,
8 I don't remember what you said. But I think that's
9 what that means to me.

10 Q. You said -- you said, I think you said
11 useful benefit. You can still obtain a useful benefit,
12 even though they're not exactly matched. What kind of
13 useful benefit are you referring to?

14 A. Oh, I don't know. That is, again,
15 dependent on the application. I think the words useful
16 and efficient enough are defined by the patent holder,
17 and I could assume that there are applications where if
18 something isn't completely 100 percent matched, your
19 car will still charge up but perhaps it takes longer.

20 So how long you're willing to wait will
21 define useful and close enough.

22 MR. CORBETT: Well, we've been going
23 about an hour. I think we're at good spot
24 for a short break.

25 Marisa, can we go off the record, please?

1 (Off the record at 10:02 a.m.)

2 (On the record at 10:16 a.m.)

3 BY MR. CORBETT:

4 Q. Dr. Allen, I'd like to go back to paragraph
5 179 of your declaration, which is Exhibit 1003.

6 In paragraph 179, you're discussing a
7 portion of Cook that, in your view, discloses this
8 authorization facility element 13[f] of the '687
9 Patent, is that right?

10 A. So I think 179 Cook is describing an
11 authentication system, right, the sort of basic concept
12 of the authentication system, and then there are other
13 elements to be filled in by people of ordinary skill
14 and Bennett to add specifics.

15 Q. And in your view, those specifics that are
16 added, are those necessary to disclose the element
17 13[f]?

18 A. I think you're asking me again, you know,
19 did Cook alone disclose 13[f]? And, again, I didn't do
20 that analysis. I'd have to go back and check that.

21 Q. Okay.

22 A. I think if I look at the last sentence of
23 179, and say, you know, Cook left the details for how
24 to implement authorization to the person of ordinary
25 skill.

1 Q. Okay. We'll circle back to that here in a
2 moment.

3 At the beginning of paragraph 179, you cite
4 to paragraph 14 of Cook, which mentions a send and
5 receive portion 160 that "wirelessly detects a unique
6 identifier indicative of the vehicle 100."

7 Do you see that?

8 A. I do.

9 Q. Does Cook specify what information is
10 contained in this unique identifier?

11 A. So we should probably take a look at Cook
12 so that we can place that quote in context.

13 So I think Cook describes several methods
14 for doing that, right. He talks about an RFID device.
15 He talks about a camera, a scanner to look at the
16 license plate, things like that.

17 Q. Okay. So some examples could be a license
18 plate or a serial number of the vehicle would be an
19 example of the unique identifier?

20 A. Yes, those are examples that Cook gives.

21 Q. If you go down to the next paragraph in
22 Cook, paragraph 15, it mentions a flowchart that's
23 shown in Figure 2 of Cook. Do you see that?

24 A. I do.

25 Q. Okay. And it says in step 200, it detects

1 the identification of the vehicle. Do you see that?

2 A. I do.

3 Q. What's your understanding of what's going
4 on in step 200 there?

5 A. So I, you know, would have to read this all
6 one more time, but I believe that what's happening is
7 that the procedures that are described in paragraph 14
8 are being implemented.

9 Q. Okay. So for the example of an RFID device
10 that you mentioned, that's reference number 121 in
11 paragraph 14, to defect the identification, there would
12 be some kind of RFID reader that could obtain the
13 information from the RFID device, is that right?

14 A. I think that's one way you could do it,
15 sure.

16 Q. Okay. How about the other embodiment where
17 it discusses a camera or a scanner?

18 A. You mean, could the ID be detected in that
19 way, is that your question?

20 Q. Yes.

21 A. Yes, I believe so.

22 Q. And then in the next sentence in paragraph
23 15, this is the third line of paragraph 15, there's a
24 step 205 where it says: Detection is made of whether
25 the detected identification has an account associated

1 therewith. It says: This is sent to a controller that
2 has the ability to detect whether there is an existing
3 account. Do you see that?

4 A. I do.

5 Q. Could you explain what your understanding
6 of that portion is?

7 A. Well, I think what a person of ordinary
8 skill would take from that is that the ID has been
9 read, and it's being checked against a database to see
10 whether or not that ID exists in the database. I would
11 imagine there's other ways to do it, but that seems the
12 most straightforward.

13 Q. A couple of lines down, I think it's the
14 next line down from where we left off, it says: If the
15 controller verifies. Do you see that sentence?

16 A. No, I'm sorry.

17 Q. It's paragraph D --

18 A. Controller verifies, yes, I found it,
19 sorry.

20 Q. It says: If the controller verifies the ID
21 as being one that is associated with an account at 205,
22 charging is enabled. Do you see that?

23 A. I do.

24 Q. And what's your understanding of that
25 sentence?

1 A. So I think what a, you know, again, a
2 person of ordinary skill at that time would say is that
3 if that -- let's get the noun correct here. If that ID
4 is in the database, the implication is that that user
5 or that vehicle is authorized, and so you can go ahead
6 and start charging that vehicle.

7 Q. And flipping back to your declaration in
8 paragraph 179, it's the second sentence, where you say:
9 That the charger only initiates power transfer if an
10 encrypted value for the vehicle ID agrees with the
11 proper encryption code and proper token time, and you
12 cite to paragraph 18 of Cook. Do you see that?

13 A. I do.

14 Q. Okay. So in paragraph 15 though, there's
15 no discussion of encryption, correct?

16 A. I do not see anything in 15 about
17 encryption.

18 Q. Okay. So in 15, paragraph 15 of Cook, it's
19 describing an embodiment in which the charging is
20 enabled just by verifying the ID as being one that is
21 associated with an account, is that right?

22 A. So I think it's discussing examples that
23 some of which do not have encryption, right? I think
24 the license plate would be an example of that. Unless
25 your license plate is encrypted, that would not be an

1 encrypted signal. And Cook goes on to talk about you
2 could also encrypt the signal.

3 Q. Right. And that begins in paragraph 17 of
4 Cook, correct?

5 A. Yes.

6 Q. And in paragraph 17 of Cook, how is Cook
7 describing this encryption technique?

8 A. I'm sorry, how is he describing it?

9 Q. Yeah, let me rephrase.
10 What's your -- what is your understanding
11 of the encryption technique that's described here in
12 paragraph 17 of Cook?

13 A. So my -- or maybe I should say, you know, a
14 person of ordinary skill's understanding, is that in
15 order to encrypt, there are many different ways one
16 could encrypt the information that's going to be sent.
17 One way that they talk about is to basically timestamp,
18 incorporate the time at which the signal is being sent
19 to produce a token that would be different at different
20 times, so that if somehow you managed to intercept that
21 token, you couldn't come later and use it to get free
22 electricity.

23 Q. And in this encryption example that adds
24 this realtime token, is it the same ID that we
25 discussed earlier in paragraph 14 that's being

1 encrypted?

2 A. So what gets ultimately decrypted I would
3 think a person of ordinary skill would say is what
4 matches the database. You know, either the database is
5 storing encrypted values of some kind and you're
6 partially decrypting the time, or it's decrypted all
7 the way to the original vehicle ID. That part I do not
8 know, that detail.

9 Q. Does any portion of Cook state that the
10 unique identifier contains any information about the
11 resonator that's on the vehicle?

12 MR. DAVIS: Objection, form.

13 A. So I don't know if the ID explicitly
14 contains information about the resonator or not in the
15 sense that, you know, is a portion of the ID have a set
16 of numbers that indicates the resonant frequency, or if
17 it is implicit in saying oh, in the database, this
18 vehicle ID is associated with an X megahertz frequency.
19 I could imagine a person of ordinary skill could do
20 either.

21 Q. But as you sit here today, you can't
22 identify any portion of Cook that says the ID includes
23 information about the resonator on the vehicle,
24 correct?

25 A. So the ID tells us whether the device is or

1 the vehicle is compatible, presumably compatible with
2 the charger, but I do not see the words, you know, the
3 ID contains the resonator frequency explicitly in Cook.

4 Q. You said the ID tells us whether the device
5 is presumably compatible with the charger. Why do you
6 say presumably?

7 A. I suppose someone who wanted to -- I think
8 it depends on the motivation of the -- a call than the
9 electricity seller, for want of a better term. Some
10 might want to be very restrictive and say only my 23
11 cars will be allowed to charge here, and others might
12 try to be more permissive and have any car try to
13 charge here, and if it doesn't work, it doesn't work.
14 I don't know that I would set up a system in that way,
15 but I suppose someone could have a motivation to do
16 that.

17 Q. At the end of paragraph 179, you say that:
18 Cook left the details for how to implement
19 authorization between the charger and vehicle to the
20 person skilled in the art. Do you see that?

21 A. I do.

22 Q. Is it your opinion that a person of skill
23 in the art would not know how to implement the
24 authorization in Cook?

25 A. I think a person of ordinary skill would be

1 able to implement an encryption scheme based on Cook,
2 would be able to implement an authorization scheme
3 based on Cook.

4 MR. CORBETT: Marisa, are you able to
5 read that last answer back? My realtime is
6 also not updating for some reason.

7 (Record read.)

8 Q. So just so I'm clear, so what you're saying
9 is a person of skill in the art would be able to
10 implement the authorization function that's described
11 in Cook just based on the description in Cook. Is that
12 what you're saying?

13 A. I think I'm saying something a little bit
14 more, which is I'm a person of ordinary skill. I read
15 Cook, and I see that oh, there is an authorization
16 scheme here. I will now go to the literature and
17 identify potential authorization schemes like what's
18 described in Bennett that I could use to actually
19 implement the authorization.

20 Q. Does Element 13[f] of the '687 Patent
21 recite any of these specifics that you would need to go
22 to Bennett, for example, to look for to implement the
23 authorization scheme of Cook?

24 A. So it merely recites an authorization
25 facility, right, to confirm compatibility and provide

1 authorization for the initiation of transfer of power.

2 So one could imagine the license plate
3 reading as an example of something that a person of
4 ordinary skill might be able to do at a very low level
5 and then would want perhaps to augment that with more
6 detailed authorization schemes that he might find
7 elsewhere in the literature.

8 Q. Let's shift gears to Bennett, and I'd like
9 to mark as Exhibit 1005 is the Bennett prior art
10 reference.

11 (The document referred to was marked
12 Deposition Exhibit Number 1005 for
13 identification.)

14 Q. Dr. Allen, do you have the Bennett
15 reference?

16 A. I do.

17 Q. Okay. In paragraph 180 of your
18 declaration, you reference a target device
19 authenticator, which, I believe is reference number 109
20 in Bennett, and a user authorization module 121 in
21 Bennett. Do you see that, where you make reference to
22 those two elements of Bennett in your declaration?

23 A. I do.

24 Q. Okay. Is it your opinion that those two
25 components of Bennett in combination correspond to the

1 claims authorization facility?

2 A. So let's take a look at Bennett, make sure
3 that we are talking about the same thing.

4 So that's sort of columns 29 and 30 of
5 Bennett.

6 Q. I'm sorry, doctor, do you mean paragraphs
7 29 and 30?

8 A. Yes, I'm sorry.

9 Q. Okay.

10 A. So I think what paragraphs 29 and 30 are
11 doing is they are describing in more detail different
12 ways that the authentication module, if you will, the
13 target device authenticator and user authorization
14 module could work, and these would be essential parts
15 of the authorization facility.

16 Q. Are there other components of Bennett that,
17 in your view, make up the claims authorization
18 facility?

19 A. So I think one of the elements of the claim
20 13[f] is to also confirm compatibility of the
21 resonators. So everything we talked about up to now
22 has been the authorization -- well, much of what we
23 talked about up until now has been authorization for
24 initiating of transfer.

25 So one could imagine the authorization

1 including a certification is a strong word, but that
2 authorization includes the fact that they are operating
3 at compatible resonate frequencies, if you will. So 29
4 and 30 are talking about different ways that that can
5 be done.

6 So I think if I look, for example, at my
7 report in paragraph 181, Bennett describes authorizing
8 power transfer, I'm reading second or third sentence,
9 only after verifying identity information of the
10 magnetic resonant target device, and then if the
11 information matches the database, the resonant power
12 delivery is initiated.

13 So it is quite possible, since Bennett
14 contemplates resonant power delivery, that part of that
15 authorization is checking resonant frequency
16 compatibility.

17 Q. Right. In 181, paragraph 181 of your
18 declaration, where you were just reading from, you
19 quoted from Bennett that says, it verifies "the
20 identity information of the magnetic resonant target
21 device." And then I think you skipped over the part
22 that says: That confirms whether the user has
23 subscribed to a power charging service.

24 Do you see that part?

25 A. I do.

1 Q. Okay. So are you saying there that when
2 Bennett talks about verifying the identity information,
3 what it's saying is checking that the customer has a
4 subscription?

5 A. Yes. Imagine that when that customer signs
6 up for that subscription, they have to enter the
7 details of their vehicle, including details about their
8 wireless charging device.

9 Q. And you mentioned a couple of moments ago
10 whether the resonator frequencies are compatible. Is
11 the compatible resonator frequencies, is that an
12 example of what Element 13[f] is saying when it says
13 confirm the compatibility of the resonators?

14 A. I think that could be one element, sure.
15 You know, we talked a little bit about how much
16 mismatch could be tolerated and so on. But I would
17 imagine that compatibility would mean close enough sort
18 of as we discussed on the '687 Patent.

19 Q. Are there any other parameters of the
20 resonators that would also need to be compatible, aside
21 from resonant frequency, in order to have wireless
22 power transfer?

23 A. I believe so. I wouldn't be able to rattle
24 off an exhaustive list for you, but an example would be
25 say the physical size, the lateral extent of the

1 resonators.

2 Q. Then can you provide more detail on how the
3 size of the resonators might be compatible or not
4 compatible?

5 A. So I think it goes back to the efficiency
6 question. So we like to be able to have certain
7 geometric constraints to allow us to have more
8 efficient power transfer, such as the physical gap
9 between the coils being large or small, or the radius
10 of the coils being matched or one being much bigger
11 than the other, you know, things, things like that.

12 I could also imagine power delivery rate or
13 energy delivery rate, excuse me, as being necessary to
14 be compatible.

15 Q. Okay. So I just want to make sure I
16 understood what you said.

17 So we started talking about the size of the
18 resonators, that's one parameter that could factor into
19 compatibility, and then I think you also mentioned at
20 the end of your last answer energy delivery rate, is
21 that correct?

22 A. Right.

23 Q. Okay.

24 A. I'm sure there are many others.

25 Q. Many other parameters that factor into

1 compatibility?

2 A. Yes.

3 Q. Okay. So in your view, does Element 13[f]
4 where it says an authorization facility to confirm
5 compatibility of the resonators, does it have to
6 confirm compatibility with respect to multiple
7 parameters, or any one of those parameters would be
8 sufficient to meet the claim limitations?

9 A. I think that would be up to the person
10 doing the energy delivery, and maybe, to some extent,
11 the person doing the receiving the electricity into
12 their vehicle, how long would they be willing to wait,
13 you know, for example, if the charging were less
14 efficient, things like that.

15 The more compatible, the more -- the higher
16 the likelihood of better efficiency and more rapid
17 energy transfer, I would imagine.

18 Q. Let me ask you a slightly different
19 question.

20 We mentioned a few of these parameters,
21 such as resonator frequency, physical size and energy
22 delivery rate. And you mentioned there are probably a
23 number of other parameters. Just focusing on the three
24 examples you provided, if two resonators had the same
25 resonant frequencies, is it still possible that they

1 can be incompatible if some of their other parameters
2 didn't match up?

3 MR. DAVIS: Objection, form.

4 A. So we would have to define incompatible in
5 terms of wouldn't work at all versus would work more
6 slowly, less efficiency, what have you.

7 So which compatible should I be thinking
8 about?

9 Q. Well, I guess I'm trying to understand what
10 your understanding of the claim element is when it says
11 confirm compatibility of the resonators?

12 A. So I could imagine a situation where the
13 energy deliverer and the energy receiver get together
14 and negotiate. Of course, all this is taking place,
15 you know, in the cyber realm, if you will. I'd like to
16 charge my car here. Well, that's physically possible,
17 but, you know, we really don't charge your kind of cars
18 here very often. It's going to take twice as long.
19 Okay. Well, I'm willing to wait twice as long. Okay,
20 fine. Then we'll do it.

21 Or the other extreme, which is boy, this
22 charger is made exactly for this car, and I'm going to
23 be able to charge it very quickly. That's great.
24 Let's go.

25 Q. So correct me if I'm misstating what you're

1 saying, but it sounds like you're saying compatibility
2 can -- are you saying compatibility means -- could mean
3 different things in different contexts?

4 A. Right. So compatibility is, I guess I
5 would say relative concept. You could -- or a knob you
6 could turn. Maybe that's a better way to say it. I
7 could turn it all the way to one end and say if you are
8 not an exact optimal fit, according to these
9 parameters, you are incompatible. Or I can turn it
10 more loosely and say well, we'll take more vehicles,
11 but you will have to accept some sort of penalty, and
12 then there is almost certainly a third class of
13 vehicles, which would be so challenging that it simply
14 would not work, and those would be the incompatible
15 set.

16 Q. Right. So if it wouldn't work at all, it's
17 safe to say those would be incompatible, is that right?

18 A. Yes.

19 Q. Okay.

20 A. And it could be that some of the marginally
21 compatible ones you decide are not compatible enough.
22 So even if they could work, you decide I don't want to
23 bother with those.

24 Q. So on this compatibility continuum, if you
25 will, where does confirming the compatibility, as it's

1 recited in Element 13[f], fall?

2 MR. DAVIS: Objection, form.

3 A. I guess I'm trying to figure out how to say
4 this a different way, because I think that is something
5 that would be -- would be set by the provider of the
6 charging service, how restrictive or how unrestrictive
7 they're willing to be to define yes, we will allow
8 these -- this set of vehicles to come. It might be
9 different for different providers.

10 Q. And I apologize for talking over you, the
11 last part of your answer there.

12 So I understand, you know, in -- to
13 practically implement it, it might be up to, you know,
14 the provider of the charging, but I'm asking more, you
15 know, as the term confirm compatibility of the
16 resonators is used in Claim 13, Element [f], how would
17 one skilled in the art understand what it means to
18 confirm compatibility of the resonators?

19 A. I would say that one of ordinary skill
20 would believe that the -- there would be no deleterious
21 effects of utilizing that facility, and that you would
22 accomplish your goal in a reasonable timeframe to be
23 determined by you and the charging facility.

24 Q. What do you mean by no deleterious effects?

25 A. Well, I mean, there are many examples. I

1 guess one would be the charger has a hump, and you
2 drive your car over the hump, and the hump scrapes your
3 receiver off, right, that would be an example of
4 incompatibility.

5 Q. Can you think of any other examples of
6 incompatibility?

7 A. Sure. I mean, there are many. I would not
8 be able to rattle them all off here. If you decide
9 that you don't want to wait forever, and your resonant
10 frequency is very far away, that can be another example
11 of incompatibility.

12 If you are trying to charge a golf cart and
13 the device is equipped to charge an electric truck,
14 then the electricity provider might not want you there
15 taking up that valuable space. That might be another
16 example of incompatibility.

17 Q. So if we go -- if we can go to Bennett, and
18 in particular paragraph 37. For the record, Bennett is
19 Exhibit 1005. Are you at paragraph 37, Dr. Allen?

20 A. Yes.

21 Q. Okay. So about the fourth or fifth line
22 down in 37, paragraph 37 of Bennett, it says that the
23 user authorization module 121 exchanges the
24 authentication information with the power transmitting
25 unit 103. Do you see that?

1 A. I do.

2 Q. Okay. And the next sentence it says: The
3 power transmitting unit, one of three, compares the
4 information or a computed value thereof with the
5 subscriber's information in its database, accessed by
6 the target device authenticator 109. If the match is
7 determined, then resonant power delivery is initiated.

8 Do you see that?

9 A. I do.

10 Q. Okay. So what's your understanding of what
11 that's describing in Bennett?

12 A. So I believe this is describing a way that
13 the information between the device to be charged and
14 the charger are exchanging information to determine
15 whether or not the device is allowed to start to take
16 electricity from the charger.

17 Q. In your mind, is this similar to that -- to
18 the same authentication process that's described in
19 Cook that we discussed earlier?

20 A. I think it's similar, yes.

21 Q. When it says in paragraph 37 there: If the
22 match is determined, then resonant power delivery is
23 initiated, what does that mean when it says it's
24 initiated?

25 A. So the transmitting coil begins to send

1 resonant power to the receive coil.

2 Q. In the next sentence of paragraph 37, it's
3 about two-thirds down the paragraph, it says: The
4 authentication is followed by optional frequency
5 selection and directional adjustments of a non-radiated
6 magnetic field in the direction of the target
7 electronic device 115. Do you see that?

8 A. I do.

9 Q. What does it mean by optional frequency
10 selection there?

11 A. So I would think a person of ordinary skill
12 would read that to say that imagine that my transmitter
13 had the capability of varying its resonant frequency,
14 which is well-known how to achieve such variations.
15 And a receive device is brought into proximity, and the
16 receive device says hey, I am at a frequency which is
17 different than what you would like to transmit. The
18 transmit device can say, ah, I can switch to your
19 frequency, and then we will be more efficiency coupled.

20 Q. And it says in that sentence I just read
21 from paragraph 37 that this frequency selection is
22 optional. Do you see that?

23 A. I do.

24 Q. Why would that be optional?

25 A. So, again, I think that it depends on why

1 you are doing this.

2 So if I have the example that I gave before
3 was a device operating at a very different frequency.
4 If I had a device that was nominally operating at the
5 original frequency, but it had drifted to a slightly
6 different frequency, for example, because the
7 temperature was different, or some environmental
8 variable had changed, then I might choose to use my
9 adjustment means to vary the transmitter frequency and
10 make the match again; or I might say in the spirit of
11 compatible enough, it's compatible enough. I'm not
12 going to bother.

13 Q. This frequency selection that's described
14 here in paragraph 37 of Bennett, that happens after the
15 authentication step, is that right?

16 A. So if I look at paragraph 37, it says: The
17 authentication is followed by optional frequency
18 selection, so that seems to state that that happens
19 subsequently.

20 Q. And so is it your opinion that this
21 authentication that's described here in 37, that that
22 reads on the authorization facility of Element 13[f]?

23 A. Let me go back for a moment, sorry.

24 So the user authorization module is a -- I
25 think a person of ordinary skill would say, is an

1 authorization facility, which is the 13[f].

2 Q. Right. And the user authorization module
3 Bennett, that's 121, correct?

4 A. Sorry, 120 -- oh, this is in the figure.
5 Yes, that's right.

6 Q. In the next paragraph on Bennett, paragraph
7 38, it describes a source resonant frequency selector
8 123 that provides a tuning mechanism in order to
9 achieve the required resonate coupling effect.

10 Do you see that?

11 A. No, I'm sorry. I lost my bookmark. Please
12 give me a moment.

13 Q. It's paragraph 38 of Bennett.

14 A. Okay. I have paragraph 38. Sorry about
15 that.

16 Q. The sentence I read is the first sentence
17 there on paragraph 38. And so my question is that the
18 source resonant frequency selector 123 is -- and the
19 paragraph 38 describes it as providing a tuning
20 mechanism in order to achieve the required resonate
21 coupling effect, is that describing something different
22 than the optional frequency selection that we just
23 talked about in paragraph 37?

24 A. Well, I think this is what's allowing you
25 to do what's happening in paragraph 37. So this would

1 be a way that you could implement frequency selection.

2 Q. Okay. So the optional frequency selection
3 37 is performed by the source resonant frequency
4 selector 123 that's described in paragraph 38. Is that
5 your understanding?

6 A. I think that's one way you could do it,
7 right. You can use this approach. There's other
8 approaches you could use, but this is a way that you
9 could achieve paragraph 37. I think actually if you
10 read further down in paragraph 38, it talks about lots
11 of different approaches.

12 Q. So I guess, just to make sure I'm clear, so
13 in 37, there's an authentication step, and in your
14 view, that reads on Element 13[f] that confirms the
15 compatibility of the resonators, correct?

16 A. So it can, yes. It can, right.

17 So if you are merely checking to see if
18 someone's credit card bill is being paid, it wouldn't.
19 But if you within the database also have frequency
20 compatibility information, it would or could, I should
21 say.

22 Q. And so after that authentication step, if
23 it includes this information about the resonator to
24 confirm compatibility, then there's this subsequent
25 step of frequency selection that occurs, correct?

1 A. Right. It's optional, but yes.

2 Q. Okay. So you could -- so the compatibility
3 does not depend on the frequency selection, is that
4 correct?

5 A. I think that I'd say the frequency
6 selection allows you to embrace a wider set of
7 compatible things that are being charged.

8 Q. And circling back to some of these
9 parameters that we discussed in determining
10 compatibility, does Bennett describe using any of those
11 parameters to confirm compatibility.

12 A. So I'm looking at paragraph 182 of my
13 report. And in the second sentence, I guess it is,
14 Bennett taught that power control signal exchange
15 operation is required for the authentication of the
16 target electronic device before a successful resonant
17 power delivery.

18 And as part of the -- sorry, I'm skipping
19 back one sentence. As part of the authorization
20 process, the sending component will only initiate power
21 transfer when it determines there is a compatible
22 nearby resonator and also includes a step of adjusting
23 the resonant frequency.

24 Even though I read my report, I'm not sure
25 I answered your question. So could you ask it again?

1 I'm sorry.

2 Q. Yeah, my question was, these parameters
3 that we discussed previously, the physical size of the
4 resonators, the rate of energy transfer and resonant
5 frequency, does Bennett describe using any of those
6 parameters to determine compatibility?

7 A. So I don't know if implicitly those things
8 would be encoded into the authorization code. But I
9 don't recall seeing in Bennett explicit statements of
10 like physical size.

11 Q. How about in Cook? Do you recall Cook
12 disclosing using any of those parameters that we just
13 mentioned to determine compatibility?

14 A. So, again, implicitly it could be in the
15 authorization token or code in the database, so to
16 speak, but I don't recall sitting here now that it
17 talks about things like physical size.

18 MR. DAVIS: We've been going about
19 another hour. Why don't we take another
20 ten-minute break. I think I've got 11:13.
21 Do we want to shoot for 11:25? Does that
22 work for you, Dr. Allen? Blake?

23 THE WITNESS: Yeah, that sounds good.

24 (Off the record at 11:13 a.m.)

25 (On the record at 11:26 a.m.)

1 BY MR. CORBETT:

2 Q. Dr. Allen, before the break, we were
3 talking about paragraph 182 of your declaration, and
4 you reference there and you quote from paragraph 39 of
5 Bennett that references a power control signal exchange
6 operation. Do you see that?

7 A. I do.

8 Q. So if we go to that paragraph 39 of
9 Bennett, that sentence is kind of right in the middle
10 of paragraph 39. Do you see that?

11 A. Yes.

12 Q. Okay. So the next sentence in paragraph 39
13 of Bennett talks about a target device power manager
14 127 that manages the battery level of the rechargeable
15 battery 129 by regulating the battery discharge and by
16 initiating resonant power charge operation.

17 Do you see that?

18 A. I do.

19 Q. Is that describing the power control signal
20 exchange operation that's referenced in the preceding
21 sentence?

22 A. So I don't believe so. I believe that a
23 person of ordinary skill would say that the power
24 control signal exchange operation would be the signal
25 to initiate the wireless power transfer, and there is

1 another monitor on the vehicle that's doing things like
2 monitoring how charged the battery is and presumably,
3 it would -- I guess this is getting ahead of ourselves,
4 but if the battery charge deviates significantly from
5 what it should, then the power transfer could be
6 altered or interrupted.

7 Q. And where in Bennett does Bennett explain
8 what is meant by this power control signal exchange
9 operation?

10 A. So I'm -- because also in my report --
11 well, I guess that's not your question. I was going to
12 look at the provisional patent that's also referenced
13 in my report, but I think you're asking where in the
14 Bennett patent it's described?

15 Q. Yeah, let's start with the Bennett patent,
16 but the same question for the Bennett provisional, if
17 there's a portion of the provisional that you think
18 explains what that term means.

19 MR. CORBETT: And Marisa, for the
20 record, let's go ahead and mark
21 Exhibit 1006, that is the Bennett
22 provisional application.

23 (The document referred to was marked
24 Deposition Exhibit Number 1006 for
25 identification.)

1 A. Looking through my report, and I see that
2 the power control signal exchange operation referenced
3 in the paragraph 39 that we talked about and also in
4 the provisional, so let me turn to the provisional.

5 I'm going to look at my soft copy of the
6 Bennett provisional, because I think in my hard copy,
7 something else is in the tab that I have. So excuse me
8 for a moment.

9 (Pause.)

10 A. Okay. Sorry about that. Yes, I found it,
11 and my hard copy is also correct. So I apologize for
12 that confusion.

13 So it's also mentioned there, substantially
14 similar language to what's in Bennett, the Bennett
15 issue patent in paragraph 39.

16 Q. Right. And I think my question though is
17 where it references the power control signal exchange
18 operation in paragraph 39, where in Bennett does it
19 explain what that operation is?

20 MR. DAVIS: Objection, form.

21 A. Now, I don't see it looking in realtime. I
22 don't see it elsewhere in the patent.

23 Q. Okay. And just to make sure I understood
24 your earlier testimony, the portion of paragraph 39
25 that immediately follows the reference to the power

1 control signal exchange operation, it's kind of the
2 last couple of sentences of paragraph 39 that mentions
3 a target device power manager 127, that manages the
4 battery level and initiates resonant power charge
5 operation, you're saying that's not what is meant by
6 the power control signal exchange operation, is that
7 right?

8 A. So that the control signal exchange
9 operation in my mind is the portion of the sequence in
10 the flowchart that would be one of the key -- one of
11 the factors necessary to initiate power transfer, and
12 could you repeat your question again? I'm sorry.

13 Q. Right. I'm just trying to get an
14 understanding of what you understand this power control
15 signal exchange operation to mean. And it seemed like
16 earlier, you said, and perhaps I misunderstood, that
17 the subsequent couple of sentences that talk about this
18 target device power manager that manages the battery
19 level and initiates the power charge operation, that
20 that is something different from the power control
21 signal exchange operation, but correct me if I
22 misunderstood your testimony.

23 A. I think the way the power exchange
24 operation is working is it's the operation that makes
25 sure that power is only transferred to vehicles where

1 charging is enabled. The resonator is compatible and
2 so on. And if we did not have a compatible receive
3 resonator, the power control signal would not occur, or
4 that operation would not, would not allow energy to be
5 transferred to the device, the receive device.

6 Q. But Bennett does not say that the power
7 control signal exchange operation confirms
8 compatibility of the resonators, does it?

9 A. I think that's something that somebody, a
10 person with ordinary skill, would have understood.

11 Q. But, again, there's no explicit description
12 of parameters of the resonators that are compared or
13 analyzed to determine compatibility in Bennett, is that
14 right?

15 MR. DAVIS: Objection to form.

16 A. So no, without rereading, you know, all of
17 Bennett carefully to identify where such things would
18 be, sitting here right now, I can't point to any.

19 Q. I'd like to go back to Cook for a moment,
20 and that's Exhibit 1007.

21 (The document referred to was marked
22 Deposition Exhibit Number 1007 for
23 identification.)

24 Q. And we discussed earlier whether you're
25 relying on the disclosure of Cook by itself or the

1 combination of Cook and Bennett as disclosing this
2 authorization facility. And I believe you said you
3 would need to look back at Cook to determine whether
4 Cook by itself disclosed this feature, particularly the
5 confirm the compatibility of the resonators.

6 Do you recall that discussion earlier?

7 A. I recall the discussion about the Cook
8 versus Cook and Bennett, yes.

9 Q. Okay. So in Cook, can you identify where
10 Cook discloses confirming the compatibility of the
11 resonators?

12 A. So just for example, if I look at paragraph
13 11 of Cook, I see words like appropriate transmitter,
14 wireless charging circuit of appropriate type, for
15 example, the right frequency, that's in paragraph 12, I
16 apologize, and so on.

17 Q. Right. And in paragraph 12, it says in the
18 embodiment: The battery is automatically charged
19 whenever the antenna 112 comes into range of a wireless
20 charging circuit of appropriate type, e.g., the right
21 frequency. Is that what you were referring to?

22 A. Yes, that's what paragraph 12 says.

23 Q. Okay. And when it says automatically
24 charged, what does that mean to you?

25 A. So to me, automatically means human

1 intervention is not required.

2 Q. But there's no description here in
3 paragraph 12 that there is a determination that is made
4 with respect to the compatibility of the resonators, is
5 that right?

6 A. There is no explicit term, although it's
7 hard to understand how, without some sort of checking,
8 we would know whether things were the right frequency
9 or compatible.

10 Q. I'd like to switch gears and move to page
11 118 of your declaration, almost at the very end.

12 A. Yes, I found it.

13 Q. So on page 118, you discuss dependent Claim
14 6, 12 and 18, which recite that the authorization
15 facility further determines a safety condition for
16 initiation of transfer of power. Do you see that?

17 A. I do.

18 Q. What's your understanding of this claim
19 element?

20 MR. DAVIS: Objection, form.

21 A. So I think a person of ordinary skill would
22 read that to mean that not only do we want to determine
23 whether, whether the vehicle, the device getting power,
24 is compatible, but also is it safe to deliver that
25 power?

1 Q. So in your view, this determining a safety
2 condition is different than determining compatibility
3 of the resonators, is that right?

4 A. So I think many safety conditions could be
5 different from compatibility. Some may be extrinsic.
6 So everything could be particularly safe, but there's
7 something in the way, but -- let me restate that,
8 sorry.

9 So everything could be perfectly
10 compatible, but there's something in the way.

11 Alternatively, it could be that it is
12 compatible and ready to take energy, but perhaps the --
13 we're talking about the battery earlier, perhaps the
14 battery is already charged and you don't want to
15 continue to charge the vehicle.

16 So from a compatibility standpoint in terms
17 of yes, I paid my bill, and yes, the resonators match
18 and can accept energy and so on, you have
19 compatibility. But maybe you still don't want to
20 transfer energy because of safety.

21 Q. Most of the deposition we've been focusing
22 on Claim 13. Is your analysis of Claims 1 and 7
23 substantially the same as your analysis for Claim 13
24 for the authorization facility element?

25 MR. DAVIS: Objection, form.

1 A. I'd have to -- I'd have to look at those
2 sections. So I'm looking at page 184 of the report.

3 Q. Paragraph 184?

4 A. Oh, I'm sorry, yes, paragraph 184.

5 And as I recall, that the major difference
6 of Claim 1 is that it is aimed more at the receiver on
7 the vehicle, whereas Claim 7 is more aimed at the power
8 source, but the elements, the remaining elements have
9 very similar reasoning rationale to the discussion of
10 Claim 13.

11 MR. CORBETT: Okay. Why don't we take
12 another short break. I can look over my
13 notes, but we may be almost done here.

14 So why don't we take about ten
15 minutes. Start back at noon.

16 (Off the record at 11:49 a.m.)

17 (On the record at 12:00 p.m.)

18 MR. CORBETT: Dr. Allen, that's all
19 the questions I have for you today. I
20 appreciate your time in answering all our
21 questions this morning.

22 THE WITNESS: Thank you.

23 EXAMINATION BY COUNSEL FOR THE PETITIONER

24 BY MR. DAVIS:

25 Q. I just have, like it might be like three

1 questions, which I can just do really quickly.

2 Dr. Allen, do you recall being asked about
3 whether Bennett has any sort of express description of
4 the parameters that can be looked at to confirm
5 compatibility of resonators?

6 A. Yes, I do.

7 Q. If you turn to paragraph 67 of Bennett.

8 A. Yes, I have it.

9 Q. What does this paragraph state is contained
10 in the target device identification database with
11 respect to the resonator?

12 A. So --

13 MR. CORBETT: Objection to form.

14 A. -- in paragraph 67, it's talking about the
15 database, and it talks about what sort of entries might
16 be in the database, including information about the
17 user and also information about the target device to be
18 charged, including its resonant frequency.

19 So thank you for pointing that out.
20 Bennett does discuss one means for determining the
21 preferred resonant frequency.

22 Q. And what does that tell you about whether
23 Bennett describes parameters that can be used for
24 determining the compatibility of resonators?

25 A. So Bennett's database does describe a means

1 for determining whether or not the resonant frequencies
2 of the resonators are compatible.

3 MR. CORBETT: Objection to form on the
4 last question.

5 MR. DAVIS: Okay. And that's all I
6 have.

7 MR. CORBETT: I don't have any
8 additional questions.

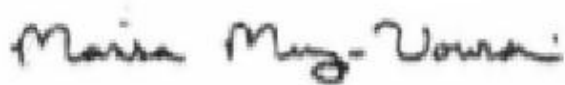
9 (Whereupon the deposition was
10 concluded at 12:03 p.m.)

11 (Signature reserved.)
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C E R T I F I C A T E

I, Marisa Munoz-Vourakis, Stenographic Reporter, RMR, CRR and Notary Public, certify that on May 7, 2024, in Philadelphia, Pennsylvania, having produced satisfactory evidence of identification, and having been first duly sworn or affirmed by me according to the emergency video notarization requirements contained in G.S. 10B-25, to tell the truth, thereupon testified as set forth in the preceding pages, exclusive of errata sheet and signature page, if required, the examination being reported by me verbatim and reduced to typewritten form by me personally.

I further certify that I am neither counsel for, related to, nor employed by any of the parties to this action in which this proceeding was conducted, and further, that I am not a relative or employee of any attorney or counsel employed by the parties thereof, nor financially or otherwise interested in the outcome of the action.

IN WITNESS WHEREOF, I have hereunto subscribed my name
this May 8, 

MARISA MUNOZ-VOURAKIS

Notary #20032900127

1 Mark Allen

3 May 8, 2024

4 RE: Inductev, Inc. v. Witricity Corporation

5 5/7/2024, Mark Allen ('687 Patent) , Ph.D. (#6675796)

6 The above-referenced transcript is available for
7 review.

8 Within the applicable timeframe, the witness should
9 read the testimony to verify its accuracy. If there are
10 any changes, the witness should note those with the
11 reason, on the attached Errata Sheet.

12 The witness should sign the Acknowledgment of
13 Deponent and Errata and return to the deposing attorney.
14 Copies should be sent to all counsel, and to Veritext at
15 litsup-ga@veritext.com

16 Return completed errata within 30 days from
17 receipt of testimony.

18 If the witness fails to do so within the time
19 allotted, the transcript may be used as if signed.

22 Yours,

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Inductev, Inc. v. Witricity Corporation

Mark Allen ('687 Patent) , Ph.D. (#6675796)

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Mark Allen ('687 Patent) , Ph.D.

Date

Inductev, Inc. v. Witricity Corporation

Mark Allen ('687 Patent) , Ph.D. (#6675796)

ACKNOWLEDGEMENT OF DEPONENT

I, Mark Allen ('687 Patent) , Ph.D., do hereby declare that I
have read the foregoing transcript, I have made any
corrections, additions, or changes I deemed necessary as
noted above to be appended hereto, and that the same is
a true, correct and complete transcript of the testimony
given by me.

Mark Allen ('687 Patent) , Ph.D.

Date

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

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THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

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