

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

AFFORDABLE WIRE MANAGEMENT, LLC,
Petitioner,

v.

CAMBRIA COUNTY ASSOCIATION FOR THE BLIND AND
HANDICAPPED, INC.
Patent Owner.

IPR2024-00178
Patent 11,349,291 B2

Record of Oral Hearing
Held: January 22, 2025

Before JAMES P. CALVE, FRANCES L. IPPOLITO, and NATHAN A.
ENGELS, *Administrative Patent Judges*.

IPR2024-00178
Patent 11,349,291 B2

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The above-entitled matter came on for hearing on Wednesday, January 22, 2025, commencing at 1:03 p.m., at the U.S. Patent and Trademark Office, 207 South Houston Street, Dallas, Texas.

P R O C E E D I N G S

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JUDGE ENGELS: Please be seated.

JUDGE CALVE: Good afternoon, everyone. This hearing is for inter partes review 2024-00178. It is between the Petitioner, Affordable Wire Management, and Patent Owner, Cambria County Association for the Blind and Handicapped, regarding U.S. Patent Number 11,349,291, also known as the '291 patent. That's how it will be referred to during this proceeding, generally.

I'm Judge Calve. As you can see, I'm attending the hearing remotely with Judge Ippolito. Judge Engels is presiding in the Dallas regional office where you're all attending. We hope everyone had a safe trip into the office today, and welcome.

Pursuant to the parties' agreement and representation that the arguments today, in this hearing, will discuss only public information and will not discuss any information that's covered by the Protective Order that was entered in this case, this hearing will be open to the public and will also include a public line from which the public may listen to the arguments presented today.

To keep the record clear, please refer to the demonstrative exhibits by slide number, and we all have copies of your demonstratives, and we'll be able to follow your presentation a little easier. And the court reporter also will be able to record what's being said a little bit more clearly for the record.

Per the hearing order, each party has 60 minutes to argue, and then additionally, Patent Owner received an additional 15 minutes to argue for its

1 LEAP practitioner, Mr. Madison. Because Petitioner has the burden to show
2 unpatentability of the challenged claims, Petitioner will argue first and then
3 be followed by Patent Owner. Petitioner, you may reserve time to rebut
4 Patent Owner's opposition arguments. And Patent Owner then may reserve
5 a brief time for sur-rebuttal.

6 So just please let us know, as a housekeeping matter, at the beginning
7 of your argument before you start, just let us know how much time you'd
8 like to reserve in either rebuttal or surrebuttal. And we will keep track of
9 that time. And Judge Engel will then hopefully be able to enter the time that
10 you're going to use or allocate for your primary argument on that clock
11 above the bench, and you'll be able to watch it yourself. And we'll kind of
12 keep an eye on it for you also.

13 With that said, will counsel for petitioner please introduce themselves.

14 MR. GALICA: Good afternoon, Your Honors. Matthew Galica from
15 Mintz, Levin on behalf of Petitioner.

16 JUDGE CALVE: Okay. Thank you. And will counsel for Patent
17 Owner

18 please introduce themselves and enter their appearance.

19 MR. FLYNN: Good afternoon, Your Honor. I am Ed Flynn from the
20 firm Eckert Seamans, representing Cambria County Association for the
21 Blind and Handicapped, the patent owner. And this is my LEAP colleague,
22 Cody Madison.

23 JUDGE CALVE: Thank you. All right. Unless there are any other
24 matters to be discussed by the parties, or anyone on the panel has questions,
25 I think we're ready to proceed.

26 Petitioner and -- both parties, we've read the record, and we're familiar

1 with it.

2 Now, Petitioner, you may proceed when you're ready. And just let us
3 know how much time you'd like to reserve.

4 MR. GALICA: Thank you, Your Honors. As I set up my laptop, I
5 think about 35 minutes of time will be necessary for my initial arguments.
6 I'll reserve the rest for rebuttal.

7 JUDGE ENGELS: Okay.

8 MR. GALICA: And I'll target that for now.

9 JUDGE ENGELS: Okay. So what you all will know, when the
10 rebuttal time is approaching, is the yellow light will turn on. So it will still
11 say your full allotment on the clock, but the yellow light will turn on when
12 you reach your 35 minutes.

13 MR. GALICA: Thank you.

14 JUDGE CALVE: Counsel, you may proceed. When you're ready and
15 get everything set up, please go.

16 MR. GALICA: Okay. Thank you, Your Honors. Sorry. I'm having
17 one minor issue.

18 JUDGE CALVE: Oh, okay.

19 (Pause)

20 MR. GALICA: Good afternoon, Your Honors. I'll start with a brief
21 agenda.

22 I'd like to first discuss the overview of relevant issues, followed by
23 some background reiterating the challenged claims, the grounds, and the
24 prior art relevant to the issues in the proceeding. I'll spend a little time on
25 claim construction, and then I plan to address primarily Ground 3.

26 At this time, if there are any questions for Grounds 2 and 1, I'm happy

1 to entertain them. But my plan is to rely on the papers that Petitioner has
2 submitted, specifically with a reply, which we believe has characterized,
3 articulated our positions with respect to Ground 2 and 1. So time permitting,
4 I may address them, but my intention is to focus primarily on Ground 3.
5 And then to round things out, I will address the secondary considerations
6 argument that Patent Owner has raised as evidence of nonobviousness.

7 So a quick overview of the relevant issues here, starting with claim
8 construction. There are two phrases or terms at issue. One had been
9 previously decided as part of the institution decision. Hasn't been argued or
10 developed any further by Patent Owner, so that's waived. Don't need to
11 worry about it.

12 From Petitioner's perspective, the claim construction issues ultimately
13 are not relevant. We believe Patent Owner's positions are incorrect in view
14 of the record, as well as legally. But ultimately, Patent Owner's never
15 applied them in a way with respect to any ground that would challenge the
16 arguments that Petitioner has made to this point.

17 The next issue addressed is the motivation to combine with respect to
18 Ground 3. That involves the Carr and Almy reference, so I'll spend a bunch
19 of time discussing that.

20 And then as it relates to Ground 3, beyond motivation to combine
21 Petitioner -- sorry, Patent Owner -- hasn't disputed that the combination
22 discloses all limitations and independent claims or that the references
23 disclose all the limitations in the dependent claims.

24 So what we're left at that point with is the secondary considerations,
25 and I'll spend some time talking to them. Petitioner's point of view right
26 now is that Patent Owner hasn't provided a nexus between the evidence

1 they've marshaled forward and the claimed features of the '291.

2 Moving to Slide 5. This is just a brief recap of the instituted grounds,
3 as I had mentioned. I'll primarily focus on Ground 3, which was instituted
4 with respect to Claims 1 through 10, 14 through 22, 24, 25 of the '291
5 patent, and it is an obviousness combination of Carr and Almy in view of the
6 knowledge of a person of ordinary skill in the art, or POSITA.

7 Just touching on the '291 patent, I'd like to provide a brief overview
8 that I think's relevant to sort of frame some of the issues. The priority date,
9 as we know, was late November, November 29th, 2014. And at a high level,
10 what the '291 patent discloses is two things: a messenger wire and a cable
11 hanger that can attach to the messenger wire. That's the system that's
12 disclosed in the '291 patent. And the -- all independent claims address this
13 embodiment or configuration.

14 The dependent claims have some minor variations directed to, in some
15 instances, the orientation of the cable carrier divider. But, again, CAB hasn't
16 disputed that those additional limitations are disclosed by the prior art
17 once -- once combinations are made.

18 Moving to Slide 7. And this is just a brief overview of Claim 1. You
19 can see that, again, the preamble talks about the system for organizing
20 plurality of electrical cables. And the structure that is disclosed for that
21 system to accomplish that is, again, the messenger wire and then a cable
22 hanger. So two things that are attached to one another.

23 The figure on the right-hand side of my slide depicts this visually. We
24 have the cable hangers, two of them. Cable-carrying surfaces of the cable
25 hangers, that's Items 17 and 16. The cable carrier divider, denoted by Item
26 18. And then the messenger wire, denoted by Item 12 in the figure of the

1 patent.

2 I just want to spend a little time talking -- or providing a technology
3 background that's relevant to -- to the patent at issue here. So as I had
4 mentioned previously, the '291 patent discloses a messenger wire and a cable
5 hanger. That's technology that has been around for nearly a century at this
6 point. There are two examples on this slide.

7 The first one, Exhibit 1013 on the left side, this is a patent assigned to
8 Hendrix Wire & Cable. They happen to be one of the largest electrical
9 system suppliers in the country. They still are providing products that
10 embody this patent.

11 Exhibit 1014, not on this slide but in the record, also states that the
12 Hendrix spacer cable, which is, you know, what you're looking at here in the
13 patent, is still being used in, "nuclear, coal, hydro, solar, and wind power,"
14 so...

15 And what the patent itself actually is, Exhibit 1013, it's described as a
16 hanger spacer to support conductors from a messenger wire. So there you
17 have it right there. The messenger wire and the cable hanger used to support
18 different electrical cables. It's been around since 1950.

19 On the right side of the slide, you have a similar disclosure. This is a
20 1930 patent assigned to Jessen. And what's disclosed in this patent is a cable
21 hanger containing two separated throughways to suspend two conductors, or
22 cables, from a single messenger. So again, you have your messenger wire.
23 You have your cable hanger. In this instance, you have two different
24 cable-carrying surfaces disclosed.

25 Next Slide 9. Some additional background. In addition to messenger
26 wires and cable hangers being taught in the art for decades, nearly a

1 century -- for almost half a century now, messenger wire systems used with
2 rings and saddles for conductor support has been known in the art. So the
3 example here is a collaboration between the Department of Energy, NASA,
4 and Underwriters Laboratory.

5 And what it's disclosing here is offering a practical messenger wire,
6 cable hanger solution for use in photovoltaic arrays, or solar arrays. So on
7 the previous slide, we knew about the existence of messenger wires and
8 cable hangers generally. And on this slide, we know that they can be used in
9 the context of photovoltaic or solar arrays.

10 Another part of the record not noted on this slide, but Exhibit 1008, is
11 further indicia of these types of systems being used in solar plant
12 installations. And that is the Snake tray. It's a 2002 -- -12 product offering
13 which -- and in Exhibit 1008, what's disclosed is Snake Tray announcing "a
14 new cable tray system that attaches to messenger wire rope for solar
15 installations." So we know the cable hanger system, the messenger wire
16 cable hanger has existed. And we know it's used in photovoltaic
17 applications.

18 Next Slide 10. So prior to the date of the patent at issue here, the '291,
19 January 1st, 2014, an event occurred in the solar industry, and that was the
20 authoring and issuance of a new version of the National Electric Code, the
21 NEC. And what was -- what all experts and declarants have agreed upon,
22 both Petitioner side and Patent Owner side, in this case is that this NEC
23 guides and constrains the design of solar installations in the industry. And
24 specifically, it discloses two things: 1, that you can use the cable hanger and
25 messenger wire system, and 2, that you can use that in a photovoltaic setting.

26 I have a brief error message. Apologize.

1 Moving to Slide 11. And as I had mentioned before, all the experts,
2 technical experts and declarants in this proceeding, have agreed that the
3 NEC guides and constrains the development of solar installation and design.
4 And more specifically, there's guidance and requirement to separate AC and
5 DC cables in solar plants as of January 1st, 2014.

6 And this makes sense and is corroborated by the background
7 information provided by Patent Owner's technical expert, Dr. Kern. In
8 Exhibit 2038 at paragraphs 42, 50, and 56, among others, but those
9 specifically, Dr. Kern explains that in the solar industry, what was occurring
10 at this time, was an increased use of trackers. And with that addition or
11 evolution of the industry, additional AC cables to power the trackers, with
12 the preexisting DC cables, were being commingled with data cables which
13 also were attached to the trackers for monitoring purposes.

14 So as the industry evolved to include more tracker systems in solar
15 plant installations, what ended up happening was you had a lot more AC,
16 DC, and data cables that you had to manage.

17 And what Dr. Kern also tells us in his declaration Exhibit 2038,
18 paragraphs 50 and 56, prior to 2014, AC cables are, "typically bundled DC
19 cables." Paragraph 56, "Commingling was the cheapest and most direct way
20 to manage cables." And that would be the AC, DC, and data.

21 So a person of ordinary skill in the art -- it's 2014. You understand
22 that due to the evolution of the industry, there are new trackers, more
23 trackers. You have more cables. And at that point in time, what had been
24 occurring was they were all just being commingled. The new NEC guidance
25 tells you, "We need to separate those cables."

26 So that's the backdrop -- and there's good reason why the cables need

1 to be separated. And that is because of what's known as cross-induction
2 effect, and that is when two different current-carrying cables are placed in
3 close proximity or adjacency to each other, the magnetic fields interfere with
4 the current-carrying of each cable. So this is a known issue in the electrical
5 arts, but also in the solar, or photovoltaic setting, and it's something that
6 you'd be motivated to eliminate.

7 Ways of addressing the cross-induction issue were also known in the
8 art. I've discussed previously Exhibit 1013 which is the Hendrix reference.

9 I've discussed Exhibit 1012, which is the Jessen reference.

10 And there's also the Carr reference, which is relied upon in Ground 3
11 of the proceeding. But it specifically discloses a cable hanger with two
12 separate cable-carrying surfaces, separated by a cable carrier divider. And
13 the purpose of that is to prevent or eliminate cross-induction. Carr was
14 published in 1945. It was a known issue. And there were already solutions
15 to it.

16 So with all of that as a backdrop, CAB applied for what is now the
17 '291 patent. Initially, the claims were rejected by an examiner. And there
18 was only one reason upon which the claims were granted. And that was the
19 declaration of the inventor, Mr. Smith, who told the examiner that a
20 messenger wire and a cable-carrying hanger had never been used in a solar,
21 or photovoltaic, setting.

22 This is discussed -- now I'm on Slide 16. Exhibit 1015, the
23 prosecution history of the '291 patent depicts how the examiner initially
24 rejected the claims. Carr discloses that, based on the prior art that is known.
25 And the only way that the inventor was able to overcome that rejection was
26 to submit that -- he did not modify the claims. He didn't argue that Carr

1 didn't disclose any of the limitations. He said that a system utilizing a
2 messenger wire and hangers had not been used in a photovoltaic setting.
3 There was no additional research by the examiner after that and the claims
4 were allowed.

5 As I've just walked through with some of the background art, it's
6 demonstrably false that a messenger wire and cable hanger system had not
7 been used in a photovoltaic system. So the declaration was submitted. That
8 was the reason for patentability. But based on the technology background
9 alone, that's a demonstrably false submission that was made to the examiner.

10 Turning to Slide 19. I'll just briefly touch on the art relevant to the
11 grounds in this proceeding. First, we have the Caveney reference, it's is
12 1003. And this teaches a cable support, an organization system, and it uses
13 cable hangers suspended from a variety of structures. Has a priority or
14 publication date of June 17th, 2004. It was not cited or considered during
15 prosecution of this patent -- '291 patent.

16 Moving to Slide 20. We have the Almy reference. It's Exhibit 1004.
17 This discloses, explicitly, the use of a messenger wire and cable hanger
18 system in conjunction with the solar panels in the solar plant. This was
19 published June 10th, 2010. This reference was not cited or considered
20 during prosecution.

21 And then on Slide 21, we have the Carr reference, which I had
22 referenced in previous slides, but this is Exhibit 1005. The Carr reference
23 teaches cable hanger for the suspension of conductor cables from a
24 messenger wire. And one of the objectives of the invention was to address
25 and mitigate, reduce, eliminate the effective cross-induction between
26 different current-carrying conductors. This was, as I previously mentioned,

1 issued as a U.S. patent on September 11th of 1945.

2 Moving to Slide 23. I'll spend a little time on claim construction. So
3 as I had mentioned previously, there were -- there have been three different
4 claim construction issues throughout this proceeding. Originally, Patent
5 Owner had contended that the phrase "electrical cables," as recited in the
6 claims, should be narrowed to mean only AC and DC. In the Board's
7 institution decision, did not agree with that position and construed it
8 differently -- or not narrowing it to AC and DC cables. Patent Owner has
9 not readdressed that issue in its Patent Owner response or its Patent Owner
10 sur-reply, so we believe that issue is waived.

11 The only two existing claim construction issues relate to the preamble,
12 which Patent Owner contends is limiting; and the phrase "organizing,"
13 which Patent Owner contends should be construed to mean "separate."

14 Patent Owner [sic-Petitioner] believes both constructions or proposals
15 from Patent Owner are wrong -- sorry. Petitioner believes Patent Owner's
16 proposed constructions are wrong. But more to the point, they don't matter
17 as Patent Owner hasn't applied them to any of the grounds in this proceeding
18 to suggest that the prior references failed to disclose any challenge claim or
19 limitation within a challenge claim.

20 So moving to Slide 24. I'll just spend a moment addressing the
21 preamble. As I had mentioned, Patent Owner has contended that the
22 preamble is limiting. But in looking at the claims in what I alluded to
23 previously, what's disclosed by the patent is simply a messenger wire and a
24 cable hanger and those two used in conjunction to support electrical cables.
25 That's the structure that defines the claimed invention. The preamble doesn't
26 provide any additional structure or indication as to what the structure should

1 be in the claim limitations.

2 So Petitioner's point of view, the body of the claims disclose
3 everything you need to know about the claim invention. And when this is
4 the case, it's Fed Circuit case, Eaton Corp. v. Rockwell International Corp.
5 323 F.3d, 1332 at 1342. This is a Fed Circuit 2003 case. When the bodies
6 of the claims disclose all the structural elements and the preamble merely
7 defines the surrounding environment, it's not limiting.

8 JUDGE CALVE: Counsel --

9 MR. GALICA: Yes.

10 JUDGE CALVE: -- this is Judge Calve. I have a question on that.

11 MR. GALICA: Yes, Your Honor.

12 JUDGE CALVE: What is your position on Patent Owner's reliance
13 on the Catalina decision and Patent Owner's contention that to obtain the
14 '291 patent, they basically went in and disclaimed, prosecutorially, coverage
15 for any system other than one that's used with cables from solar panels?

16 So they were able to say, I guess, that Carr wasn't explicitly discussing
17 cables from solar panels and the examiner had no other art to rely on. So
18 they limited the invention -- or at least obtained the patent and argued the
19 prior art didn't cover systems that had cables extending from solar panels.

20 MR. GALICA: Um-hum.

21 JUDGE CALVE: And I'm seeing that those Federal Circuits
22 decisions were pretty clear on that. If they make those types of arguments to
23 distinguish prior art and obtain a patent, that could make a preamble that
24 otherwise might be an intended use, in that instance, it is limiting.

25 What's your position on that.

26 MR. GALICA: And I'll advance one slide to 25 to address this.

1 So the Catalina decision, Catalina Marketing v. Coolsavings.com,
2 Inc., 289 F.3d 801 at 808. It's a Fed Circuit 2002 decision. I think the
3 relevant takeaway or proposition for which that case stands is
4 "understanding what the inventors actually invented and intended to
5 encompass by the claim."

6 And to understand that, we look no further than what CAB says on the
7 bottom of this Slide 25. And this is in Patent Owner's sur-reply. "For CAB's
8 systems to practice the '291 invention, it is only necessary that each of the
9 hangers' cable-carrying surfaces be structured to support at least one
10 electrical cable." It doesn't have to actually support one. It just needs to be
11 capable.

12 So -- and then further down the page, "Regardless, the photograph
13 shows that the carrying surfaces of the capable hangers are structured to
14 support electrical cables extending from solar panels. It is not necessary that
15 the photograph show that the cables are actually connected to the solar
16 panels."

17 So CAB is saying it right here, what the invention is intended to
18 claim. And it's not intended to claim specifically the circumstances where
19 electrical cables are only used in conjunction with solar installations. In
20 fact, they say they don't need to be used in conjunction with solar
21 installations.

22 So I think CAB's reliance on Catalina is, in that regard, misplaced. I
23 don't think CAB is actually intending -- despite what they said previously.
24 What they've said most recently is that the claim -- to practice the
25 claim -- what the claim actually encompasses does not need to be used in
26 conjunction with solar electrical cables or a solar plant.

1 And as the top of this slide makes clear, when that's the case, when
2 you have a new use for a known structure, patentable weight should not be
3 given for that.

4 JUDGE CALVE: Why put that principle just applied to patentability
5 rather than preambles? In other words, the examiner might have just
6 responded by saying, "You're just having a new use for an existing product
7 in Carr," and I still find that odd, because the examiner did not.

8 I don't know where that necessarily relates to giving weight to
9 preamble. And I think that portion in Catalina that might be relevant is that
10 clear reliance on the preamble during prosecution to distinguish the claimed
11 invention from the prior art transforms the preamble into a claim limitation
12 because such reliance indicates use of the preamble to define, in part, the
13 claimed invention.

14 What's -- what is inapplicable about that holding or that principle to
15 what occurred during prosecution here?

16 MR. GALICA: It's not inapplicable -- inapplicable in that
17 circumstance. But what CAB has done most recently in its sur-reply is said
18 what it actually intends to encompass by the claim invention. And what they
19 haven't done is go back to what they said during prosecution which is this
20 has to -- these electrical cables that are supported by the messenger wire and
21 the cable hanger system have to extend from a solar plant. That's the
22 only -- that's what they have to do.

23 What they're now saying is that it just has to be able to do that. You
24 don't actually have to have electrical cables stemming from a solar plant or
25 photovoltaic installation. So what they're actually trying to encompass or
26 claim with the invention is not limited to solar.

1 JUDGE CALVE: Were they just saying that the electrical cables
2 don't have to be extending directly from each particular panel? Because
3 certainly that's not in the preamble. They're just suggesting that cables
4 extend generally from a location of an array of panels.

5 MR. GALICA: Well, I think there's -- and maybe it's a distinction
6 without a difference. But I think if it's extending from an area close to solar
7 panels, I don't think that is limiting the claim invention to extending from
8 solar panels.

9 What they're saying on slide -- the bottom of Slide 25 is that you don't
10 actually -- to practice the claim, what the claim actually encompasses does
11 not require the electrical cables to be connected to a solar panel. You just
12 have to have the structure which is defined by the limitations, not the
13 preamble. The structure just needs to be able to support cables.

14 JUDGE CALVE: Sure. And in that interpretation, if we accepted
15 that, doesn't Ground 3 address that issue? Your Ground 3 under your
16 contentions?

17 MR. GALICA: I believe it does, yes.

18 JUDGE CALVE: Okay. So even under Patent Owner's
19 interpretation, it would seem like it's not going to affect the outcome under
20 your Ground 3. Of course, if we agreed with your contentions of only being
21 reliable with Carr's, is that your position?

22 MR. GALICA: Correct. And I should reiterate that and make that
23 very clear. For the reasons we've been discussing, I don't think the preamble
24 is limiting or should be limiting. But I also don't think it matters to the
25 outcome of the proceedings in the event you find that a combination with
26 Carr and Almy was motivated by -- for a POSITA.

1 JUDGE CALVE: Thank you.

2 MR. GALICA: So I'll move to the next Slide 26 which relates to the
3 "organizing" term. And I'll reiterate before I go through my argument, I
4 think the outcome, in terms of what you decide "organize" should mean,
5 doesn't impact any of the challenged grounds in any way.

6 Patent Owner has not taken that construction and applied it to any
7 ground or challenge claim or suggested that it would change the outcome of
8 arguments made by Petitioner.

9 With that said, we don't think -- Petitioner does not believe that
10 "organize" should be narrowed to mean "separate," as Patent Owner
11 contends. "Organize" is not a technical term. It has a plain and ordinary
12 meaning that's well understood. And examples that we believe describe
13 what "organize" means in the context of the claims are at the bottom of Slide
14 26. (Cleared throat.) Excuse me.

15 And I'll jump to Slide 27. As further evidence that "organize" should
16 not be construed or narrowed to mean "separate," we have testimony from
17 Dr. Kern, Patent Owner's expert, who says that separate is just one way to
18 organize. So they aren't coterminous. "Organize" is a broader term. It has a
19 broader meaning than "separate."

20 And there's nothing in the intrinsic record of the patent that would
21 suggest it should be limited or narrowed or confined to the term "separate."

22 JUDGE CALVE: Counsel, Judge Calve. Would you agree with this,
23 just

24 looking at the claim language itself? So the preamble's organizing
25 cables. And the system comprises the messenger wire. And then there's
26 hangers that are disposed along the messenger wire with surfaces that

1 support the cables. And then these surfaces also separate them.

2 So it seems, just looking at the language of the limitations, that the
3 organization -- the "organizing" in the preamble, at least according to the
4 claim language, seems to encompass organizing by, 1, supporting cables off
5 the messenger wire, 2, supporting them on a cable-carrying surface, and
6 then, 3, separating them.

7 So separating is one of the aspects of being organized. But
8 "organizing" means bringing them together and suspending them in
9 cable-carrying surfaces and then separating them.

10 So I guess I kind of agree with you, but it seems like the claim
11 language itself might just support your position.

12 What do you think of that?

13 MR. GALICA: Are you directing that to me?

14 JUDGE CALVE: Yes, Counsel.

15 MR. GALICA: Yeah. Yeah. I think that is a reasonable and
16 commonsense interpretation of the claim language.

17 JUDGE CALVE: Okay. And, again, I think you've made the point
18 earlier that even were we -- well, limiting "organizing" to "separating" seems
19 to make somewhat the last limitation a bit redundant where you
20 specifically -- they reclaim separating the surfaces. In either case, I guess
21 your position is if we went with Patent Owner's position, it would not affect
22 the position, say, in Ground 3 again?

23 MR. GALICA: That's correct. And Patent Owner hasn't argued that
24 it would.

25 JUDGE CALVE: Right. Okay. Thank you.

26 MR. GALICA: You're welcome. So I'll move ahead now to the

1 grounds,

2 and specifically Ground 3. This is Carr and Almy in view of the
3 knowledge of a POSITA.

4 So the issue here is whether or not the combination of POSITA would
5 be motivated to make the combination, that's Patent Owner's only argument
6 with respect to Ground 3, setting aside the secondary considerations, which
7 I'll address subsequently.

8 But Patent Owner concedes that if the combination is made, all of the
9 challenge claims are disclosed by the prior art. And to reiterate it again,
10 Patent Owner has not applied a claim construction that has already for -- in a
11 way that would affect that outcome.

12 Going to Slide 31, so the motivation to combine. What Petitioner has
13 proposed is the -- an obviousness combination of Carr and Almy in view of
14 the -- a knowledge of a POSITA.

15 And as you'll recall, in the technology background section and the
16 prosecution history, what -- what was alleged by Patent Owner was that
17 messenger wire and cable hanger carrying systems had never been used in a
18 solar context. Almy proves that to be false as well as some of the other
19 exhibits that I cited previously. So Almy is an example of a messenger wire
20 and a cable-carrying hanger used in conjunction with photovoltaic or solar
21 modules and groups.

22 And there would be two motivations to make the combination,
23 ultimately. First would be a POSITA would be motivated by the recent
24 NEC guidance and requirements, January 1st, 2014, when viewing Almy to
25 note that you would want to be organizing AC and DC on different
26 cable-carrying surfaces. So it would be motivated to use the teachings of

1 Carr in order to do that.

2 A POSITA would also be motivated to improve Almy's wire-based
3 wireway with Carr's more robust cable-carrying hanger.

4 JUDGE CALVE: Counsel, I just wanted to --

5 JUDGE ENGELS: Counsel, you've used 35 minutes.

6 MR. GALICA: Yes.

7 JUDGE CALVE: Oh, I'm sorry. Go ahead.

8 MR. GALICA: Thank you. I'll pick up the pace. I appreciate the
9 reminder.

10 So -- and this is corroborated by some of the industry developments
11 that I touched upon earlier and that Patent Owner's expert had elaborated on
12 in his declaration. And, again, that's just in the record, Kern 2001, Exhibit
13 2001, Dr. Kern's declaration, paragraphs 38 to 39 and 47. This is all talking
14 about how the evolution of the solar industry was that more and more
15 trackers were being used in the photovoltaic modules and installations.

16 And with that came the addition of AC, DC, and data cables which,
17 according to Dr. Kern, were -- prior to 2014, were bundled together. And
18 they were commingled because it was the cheapest and most direct way of
19 managing these cables.

20 So with that as a backdrop, Petitioner's expert, Dr. Omid Beik, states
21 that a POSITA with that knowledge and the understanding of the Almy and
22 Carr reference would have been motivated to address that issue with the
23 multiple different types of cables in a photovoltaic modular group and use
24 the hanger of Carr in order to address the issue of cross-induction. And with
25 the -- with the technology background that I alluded to before, that would
26 provide motivation for a POSITA to make that change.

1 And there's additional background. Some of it I alluded to previously.
2 I'm on Slide 35 now. Again, it was known that you would be -- you could
3 use these -- beyond Almy, you could use the messenger wire and the
4 cable-hanger system in photovoltaic. We've known that since 1984 based on
5 the Department of Energy and NASA's disclosures.

6 JUDGE CALVE: Counsel, Judge Calve, again.

7 MR. GALICA: Yes.

8 JUDGE CALVE: Just to clarify my understanding.

9 MR. GALICA: Yes.

10 JUDGE CALVE: So if I understand your position, does Almy, by
11 itself, have the ability to handle AC and DC cables separately?

12 MR. GALICA: Not with its -- not to organize them in a separate way,
13 based on the use of its single wire loop.

14 JUDGE CALVE: Yeah. So the wire loop in the Figure 2 and the
15 schematic in Figure 6, it's able to handle just one -- well, it could handle AC
16 and DC. But they'll be bundled together. Is that your position?

17 MR. GALICA: Correct. And that would introduce as Dr. Kern had
18 alluded to -- or that would be typical as Dr. Kern alluded to. That was how
19 you would bundle them all together. But you would have the negative effect
20 of cross-induction that you would want to make it.

21 JUDGE CALVE: Okay. So the only way to have Almy, 1, comply
22 with this 2014 NEC rule and also provide the separation that's separately
23 necessary to reduce or prevent cross-induction is to incorporate a hanger,
24 like Carr's, is that what your position is?

25 MR. GALICA: Correct. And I -- you anticipated one of the points I
26 was just about to make on Slide 36 which is the -- just reiterating that all the

1 technical experts and declarants in this proceeding agree that the January
2 21st, 2014, NEC guidance requires the separation of those AC and DC
3 cables.

4 And then I'll go to Slide 38 and address the additional independent
5 motivation that a POSITA would have to combine the more robust cable
6 hanger of Carr with the Almy reference. As Dr. Beik, Petitioner's expert,
7 states -- it's in paragraphs 96 and 98 of his declaration, Exhibit 1002 -- "A
8 person of ordinary skill in the art would recognize the temporary nature of
9 the wire loops in Almy and would have been motivated to replace them with
10 a more resilient, more robust, reliable cable hanger of Carr, which was also
11 more immune to effects of degradation and deformation."

12 And Carr, in support of that, the record evidence, Carr describes its
13 hanger as being made out of laminated steel. It has considerable hardness
14 and resiliency. And it's able to withstand relatively great tension without
15 deformation.

16 In contrast, the Almy wire loop -- and this is from Exhibit 1028, the
17 deposition of -- excuse me -- Mr. Smith, the named inventor of the '291
18 patent. And I'll just quote from how he describes the Almy wire loop. "It
19 looks like a piece of" -- this is Exhibit 1028 at page 86, lines 4 through 8. "It
20 looks like a piece of wire. It doesn't look like a hanger. It looks like
21 a -- something you'd see on a bread bag, you know, a twist, a piece of wire
22 twisted, not a substantial hanger intended to carry cables." So that is what
23 somebody would understand the Almy wire loop to disclose.

24 And because of that, somebody would be motivated to replace it with
25 Carr's more robust, resilient cable hanger that is resistant to degradation and
26 deformation.

1 As I mentioned, I'll -- given the time, I'll pass over Grounds 1 and 2
2 and skip to the secondary considerations argument that Patent Owner has
3 made. And this starts on Slide 50.

4 So just reiterating some of what all of us know, (as read) "The burden
5 is on CAB to show a nexus between evidence of its alleged secondary
6 considerations and the patented invention." You know, multiple Fed Circuit
7 cases support this proposition, that in order to give any weight to the
8 secondary considerations evidence, the evidence of secondary considerations
9 must have a nexus to the claims; i.e., there must be a legally and factually
10 sufficient connection between the evidence and the patented invention." As
11 a walkthrough now, Petitioner does not believe Patent Owner has met that
12 burden.

13 And one more lens -- legal lens through which this analysis needs to
14 be made is when there are multiple patents that are alleged to practice certain
15 products, it's the burden of the patent owner to distinguish between the
16 claimed features and identify what secondary considerations are attributable
17 to one patent versus another or, as we'll see, multiple other.

18 Just as a housekeeping item, with respect to nexus, Patent Owner
19 submitted a -- what's depicted here on Slide 53, you know, a two-sentence/
20 three-sentence analysis of the technical nexus that I wanted to rely upon.
21 And Petitioner's position is that it crowbarred in, improperly, a -- an
22 incorporation by reference of its technical expert, Dr. Kern. We've
23 submitted a motion to strike that. That's Paper 35 in the proceeding. That
24 has yet to be ruled on.

25 Even considering Dr. Kern's arguments, though, they failed to show
26 nexus for three reasons. He hasn't identified or demonstrated what CAB

1 products practiced the claimed invention. He hasn't analyzed or even
2 acknowledged the fact that CAB broadcasts to the world, with self-interest.
3 It's what patents it believes are practiced by its products. And then,
4 ultimately, Dr. Kern's analysis collapses into what is a vague set of claim
5 charts, undecipherable products, unknown part numbers, and components
6 that are clearly not practiced by the invention.

7 Alluding to -- or the products that I was just alluding to are here.
8 They involve a messenger wire -- include a messenger wire, end-pier and
9 mid-pier attachment kits -- which I'll show later on -- are not marked by
10 CAB as practicing the '291 patent, though Dr. Kern includes them in his
11 analysis as products practicing the '291 patent. And then cable hangers.

12 And just as a further demonstration of Dr. Kern's shortcoming in
13 demonstrating technical and nexus between the products and the patent, he
14 doesn't know what any of the part numbers are stemming from CAB's
15 accounting system. And ultimately, what's revealed is on the right
16 slide -- side of this slide -- is that the counsel for CAB just drafted
17 everything. And he didn't really bother to check the detail.

18 The next few slides are a few examples of where Dr. Kern was unable
19 to identify the products that he was charting and contending, practiced
20 patents. So we see here he doesn't know what these products actually are.
21 And that was Slide 58.

22 Slide 59 --

23 JUDGE CALVE: Oh, Counsel. Counsel, Judge Calve.

24 MR. GALICA: Yes, sir.

25 JUDGE CALVE: I think the appendix to Dr. Kern's declaration did
26 give part numbers for some of these orange-colored cable hangers, didn't

1 they?

2 MR. GALICA: He did. But he didn't know whether those part
3 numbers related to the pictures he was actually relying on in his claim
4 charts.

5 And then here is just -- sorry.

6 JUDGE CALVE: No, that's okay. So -- and even if they did, for the
7 sake of the argument, Mr. Putnam has spreadsheets of sales. And I
8 don't have the exact number. But there's about a hundred different part
9 numbers for cables hangers that are two-carrier, three-carrier, four-carrier, or
10 five-carrier. Even assuming what we're looking at here as correct part
11 numbers, that's two part numbers out of about a hundred parts that are sold.
12 And they're counting sales for about 98 other parts.

13 Are there any other part numbers for cable hangers specifically that
14 Dr. Kern ties to Claims 1 and 6 of the '291 patent, that you're aware?

15 MR. GALICA: No, no. And the analysis to -- to deal with that issue,
16 what Dr. Kern and Putnam did was to say that the products that Dr. Kern
17 analyzed were representative of all the others with no analysis supporting
18 that.

19 JUDGE CALVE: Okay. Thank you.

20 MR. GALICA: Slide 59. We have -- this is -- and just an example of
21 the claim chart. Again, we've included the mid-pier, end-pier kits which
22 CAB says do not practice the '291. We have a blurry image of cable hangers
23 that it's impossible to determine whether or not they practice a claim
24 limitation of the '291. And we have Dr. Kern's admission that he doesn't
25 know what product that is.

26 So what this ultimately leads to is the fact that Dr. Kern -- even if you

1 were to allow his analysis, that Patent Owner incorporated by reference, he
2 hasn't met his burden of demonstrating a nexus between CAB products and
3 the claimed invention.

4 JUDGE CALVE: Let me ask you also, Counsel, it seems -- I
5 understand what the parties are doing with this general section on nexus.

6 MR. GALICA: Yeah.

7 JUDGE CALVE: But it seems to me that almost necessarily devolves
8 into really showing a nexus for each separate secondary consideration, right?
9 So it's almost less relevant whether there's a general nexus ban or copying.

10 Does Dr. Kern show a nexus to that design that the Solar Pro allegedly
11 copied? The Solar Pro hanger was, I think, a two-cable carrier.

12 MR. GALICA: Um-hum.

13 JUDGE CALVE: And even if he gave us numbers, the ones you're
14 showing us in orange were three-cable carriers. So I don't see a nexus that
15 has anything to do with what was allegedly copied. Is there something
16 that -- that's my concern.

17 MR. GALICA: Right.

18 JUDGE CALVE: Even if we do this general nexus, it's required to
19 show the nexus for commercial success, copying, industry praise, and
20 skepticism, right?

21 MR. GALICA: You're exactly correct. And they failed to do that
22 across the board. And I'll jump ahead to what you were just referencing. It's
23 Slide 65 here. And the -- the problem is exactly as you just stated. They
24 haven't tied this to a specific CAB product. But it's a little worse, actually.

25 They have this picture from a moment in time. They can't show that
26 any CAB product, post-dating that, resembles it. And they haven't

1 undertaken the effort to do so. But they've actually failed to show that there
2 is a CAB drawing disclosure, product, anything that was shared with the
3 person who made the drawing to have copied it in the first instance.

4 So, again, it's completely void of any tethering of a nexus to a CAB
5 product or invention or disclosure. And, really, the copying -- the image on
6 the copying slide here, the only thing that it seems to resemble in this IPR
7 proceeding is the Carr reference.

8 Let's go to slide --

9 JUDGE ENGELS: Counsel, you've used 10 minutes of your time.

10 MR. GALICA: Yeah. I'll quickly go through Dr. Putnam's secondary
11 considerations, commercial success.

12 I think -- and Petitioner's expert, Minh Doan, addressed this. And I
13 think, you know, this is all in Petitioner's papers and supported by Ms.
14 Doan's expert declaration. But it's our position that, to your point, Your
15 Honor, there's never been a nexus or analysis that identifies commercial
16 success or ties commercial success to a claimed feature of the patent.

17 That analysis has never been undertaken. And it's particularly
18 problematic when you get to Slide 75, which is Exhibit 1035, where
19 the -- CAB has disclosed to the world that its products practiced numerous,
20 numerous patents. And there's been no attempt to disaggregate the
21 contribution that one patent makes versus the other as it relates to
22 commercial success.

23 Unless there are additional questions with respect to the secondary
24 considerations, right now I think Petitioner's papers have covered it. So I'll
25 pause and reserve the remainder of my time.

26 JUDGE ENGELS: Very well.

1 MR. GALICA: Thank you.

2 JUDGE ENGELS: You'll have about six and a half minutes
3 remaining.

4 MR. GALICA: Thanks.

5 (Pause)

6 JUDGE CALVE: Counsel. Yeah. If you would just please let us
7 know how much time you might like to reserve, of course, you will need to
8 decide when you segue with your LEAP practitioner, Mr. Madison.

9 If you'll just let us know how much time you'd like to reserve. We
10 can begin when you're ready.

11 MR. FLYNN: Okay. I think we will reserve six minutes for
12 surrebuttal.

13 I'm going to address a portion of the argument up until we get to
14 secondary considerations -- or at least the specific evidence of secondary
15 considerations. At that point, I'm gonna turn it over to Mr. Madison and just
16 see how long it takes me to get through all of the arguments up until then to
17 see if I can come back and address commercial success where I try to do that
18 before I turn it over to Mr. Madison. But anyhow, that's the division of labor
19 here.

20 JUDGE CALVE: Okay. Thank you. Sounds good.

21 MR. FLYNN: Good morning, Your Honors. I'm happy to start out
22 by focusing on any issue that you may want to be discussed or that you
23 would like to focus on. But otherwise, if there's nothing that you want to
24 direct my attention to right off the bat, I'll just dive into claim construction
25 issues.

26 And so there are two issues, as obviously we have talked about

1 already this morning. And one of the first claim construction issues is
2 whether the preamble is limiting, and the second one is whether
3 "organizing" a plurality of electrical cables extending from the plurality of
4 solar panels means separating those cables.

5 At the outset, I believe that my colleague gave a little bit of a short
6 shrift to the description of the '291 patent. It is not simply a messenger wire
7 and hangers. It is more than that. It is specifically -- it specifically recites a
8 messenger wire that is disposed above the ground, and from that messenger
9 wire are suspended hangers. And those hangers must be disposed along the
10 messenger wire and suspended from it.

11 The hangers themselves, as Your Honor has already pointed out this
12 morning, are required by the claim limitations to have separate
13 cable- carrying surfaces, those surfaces being divided by a carrier divider.
14 And they are also required, under the claim limitations, to be able to support
15 the electrical cables extending from the solar panels.

16 So it's a little bit more -- and it's specifically, therefore, is why the
17 importance and the relevance of the preamble being limited to solar. So it is
18 more than simply the characterization of a messenger wire and hangers.

19 With respect to the -- whether or not it was seriously contested as to
20 whether the preamble is limiting in this case, I would simply note that in all
21 three of its grounds, AWM has analyzed the references that it relies upon for
22 those grounds in the context of their application to solar. So even all of
23 AWM's analysis was based on its presumption, it appears, that we are
24 talking about a preamble that limits this invention to solar.

25 AWM says that, in any event, our constructions are wrong, even if the
26 claim construction doesn't matter. That it's not true that the preamble is

1 limiting because all of the structure of the claims is disclosed in the body.
2 And that is simply not correct.

3 The preamble of the '291 patent. Claim 1 and Claim 6 share the same
4 preamble. The preamble provides, first, structural elements. It provides the
5 structural elements of the electrical cables that are specifically recited in the
6 body of the claim. The preamble makes clear and informs a POSITA that
7 the electrical cables that are recited in the body of the claim are not any
8 electrical cables; they are specifically electrical cables extending from solar
9 panels.

10 The preamble also provides additional structural limitation for the
11 hangers themselves. Again, they're not just any hangers; they are hangers
12 that must be structured to and capable of supporting those cable
13 hangers -- plurality of cable hangers extending from the plurality of solar
14 panels. So the preamble first provides structure. Not all of the structure is
15 provided for in the body of the claim.

16 JUDGE CALVE: Counsel, Judge Calve. Let me ask you this: Let's
17 see if we

18 can nail down this structure. Is there a drawing in the '291 patent
19 that shows us this claimed subject matter? Specifically, is there a
20 drawing in the '291 patent that shows us AC and DC cables extending from a
21 solar panel?

22 MR. FLYNN: There is not a diagram or a figure in the new '291
23 patent that shows the cable hangers supporting the electrical cables
24 extending from the solar panels. So that's not in any of the figures in the
25 '291 patent. That, however, gives even more significance to the preamble's
26 limitation, that they are the electrical cables that we're talking about.

1 JUDGE CALVE: Well, isn't the -- I think it's 37 CFR § 1.83(a) says
2 the claim subject matter has to be illustrated in drawings where it admits of
3 an illustration. And so that is some indication that maybe that wasn't really
4 claimed, isn't it?

5 MR. FLYNN: Not just because there are no cables that are depicted
6 in any of the figures. The specification of the '291 patent, read in its
7 entirety, is clearly describing the hangers that are suspended from the
8 messenger wire first.

9 And second, in the specification -- in the introductory sections, if you
10 will, of the specification -- it is specifically disclosing and talking about DC
11 and AC cables extending from solar panels as well as the data signal wires
12 that are in the solar array. So there is sufficient disclosure and specification
13 to support those limitations.

14 JUDGE CALVE: And then that's my next question. I'm glad you
15 brought that up. Column 1, lines -- starting at 22 and following -- actually,
16 line 25. It's clear that DC wires might attach to solar panels, which is what
17 we see in Almy. The implication being solar panels generate DC current
18 that go right into the cables. And then they move on to combiners and
19 converters.

20 Interestingly, the next section -- or the next sentence says, "In
21 addition, alternating current power cables are used to power the motors that
22 control the trackers." So that seems to indicate that while AC cables may be
23 extending from a solar panel array, those AC cables are not extending from
24 the same panels as the DC cables. And so that's the structure I'd like to get a
25 handle on here in the preamble.

26 So we're organizing these cables. These cables are extending

1 somewhere from the vicinity of an array of solar panels. Maybe the DC
2 cables are actually coming out of the panels. I don't think there's any
3 support for AC cables coming out of solar panels.

4 MR. FLYNN: I would agree with you, Your Honor, there is no
5 disclosure in the '291 specification of AC or data cables coming from -- or
6 being attached, if you will, to the solar panels as are the DC cables.

7 In the institution decision, the Board noted that the specification
8 described all three cables: DC, AC, and data carrier wires like Category 5
9 cables to monitor the information being collected.

10 And as the Board indicated in its institution decision -- and frankly,
11 that's why we did not take further issue with the Board's construction of
12 electrical cables not just being limited to DC cables. It made reference to the
13 fact that the specification describes all of these cables being within the solar
14 array, the array of the panels.

15 So that with that understanding and with that construction, to the
16 extent that there are DC cables that are attached to the solar panels directly,
17 to the extent that there are also AC cables and data cables in the solar array,
18 that is all what the specification supports, that these are all cables that extend
19 from the solar panels.

20 In fact, I believe the institution decision made clear that to construe
21 the cables as simply DC cables because they were the only ones attached to
22 or connected to the solar panels, that that would be an improperly narrow
23 construction because the specification does refer to these other cables being
24 in the solar array and extending from the array.

25 JUDGE CALVE: Right. So you've made your point in trying to
26 weight the preamble. And I think you have a pretty good argument of the

1 Catalina decision, by the way, is you're just trying to encompass the concept
2 that solar systems, maybe unlike some other systems in electrical mining
3 industries, solar systems at least have the need for at least two different types
4 of cables, AC/DC, maybe a third type, data. And so that provides the
5 context for the body of the claim where you're -- they're subsequently
6 separating some of these cables with cable hangers.

7 Is that what we're to understand --

8 (Speaking simultaneously.)

9 MR. FLYNN: I largely -- I largely -- I'm sorry.

10 I largely agree with that statement, except that solar panels don't need
11 to have all three types of cables. But certainly from the 2010 -- and that's
12 what all this discussion is about -- the increased use of trackers from the
13 2010 onward time frame where there was more of an increased used of -- of
14 trackers. That's what introduced the need for the AC cables to power the
15 trackers. That's what introduced the data cables, therefore, to be able to
16 monitor the information that was being collected.

17 So at least from that time frame, it's expected. It's usual that solar
18 installations will have all three kinds of cables. But it's not required to. So
19 to the extent that there is only a situation where there are DC cables
20 extending from the DC panels, that would also be included.

21 JUDGE CALVE: Right. So your claims could be broad enough that
22 there's just electric cables. It doesn't necessarily, by the claim language. I
23 understand our position. But, yeah, it could just be separating DC cables.
24 But you at least want us to understand that the system that organizes
25 cables -- electric cables from solar panels at least has two different types of
26 cables.

1 Is that -- but they don't necessarily all have to come out of each panel.

2 MR. FLYNN: So in terms of the literal claim terms and how they are
3 construed -- and, again, being somewhat guided by the Board's institution
4 decision. We would say, yes, it is true that the hangers, again, only have to
5 be structured to separate the cables. If there are only DC cables in the
6 hanger, the hangers are still within the scope of the claim limitation.

7 But where the other cables -- and what my colleague referred to as the
8 "cross-induction effect," where they come into play in the context of our
9 argument is in the motivation to combine the references.

10 JUDGE CALVE: Right. So if we agree that specifically Ground 3,
11 Carr separates cables. If Carr's combinable with Almy, then Carr -- then that
12 Ground 3 would seem to render obvious Claim 1. And I realize you're
13 gonna give us some arguments as to why the motivation isn't solid. But
14 even if we weight the preamble, if Carr is combinable with Almy, then that
15 addresses even the weighted preamble, doesn't it?

16 MR. FLYNN: If the construction would be that only DC cables are
17 within the scope of electrical cables extending from the solar panels and
18 Carr's hanger separates those DC cables, then literally, within the terms of
19 the construction, that would fit. But as you pointed out, where it doesn't fit
20 is in the motivation to combine. Whether a POSITA, in 2014, would have
21 had any motivation to combine Carr with Almy for the stated purpose by
22 Petitioner in its petition.

23 JUDGE CALVE: Okay. Thank you very much.

24 MR. FLYNN: In addition to the structure that's being provided by the
25 preamble, the preamble also provides antecedent basis. In the body of the
26 claim, it refers to the plurality of electrical -- of the cables the -- that support

1 the plurality of electrical cables. It's only the preamble that provides the
2 antecedent basis for what electrical cables it's talking about in the body.
3 And that is the electrical cables extending from the solar panels. Obviously,
4 providing antecedent basis is a significant factor as to whether the preamble
5 is limiting. And, of course, the prosecution history.

6 I take issue with the way the prosecution history has been described in
7 this case, not just today, but in AWM's filings, basically accusing Mr. Smith
8 of submitting a false declaration. This is not an inequitable conduct for
9 them, but in any event, it's simply not true. And the way it was asserted as
10 to how that happened during prosecution is not true. It is not accurate.

11 It is obvious from the beginning, during prosecution, that the
12 examiner understood that these claims were limited to solar because he only
13 issued a 103 rejection. He never issued a 102 rejection. And he
14 limited -- he issued the 103 rejection, based on his understanding that
15 applicant had disclosed prior art in solar in the application, and that when
16 you combined that applicant disclosed prior art with Carr, that that was the
17 basis for the 103 rejection.

18 So Mr. Smith came back and submitted the declaration that indicated,
19 no, anything in the specification that was referring to solar, the use of an
20 above-ground messenger wire supported cable hanger system in solar was
21 referring to CAB's own products which were in the process of development.
22 That that kind of a system had never been used in solar before; only in other
23 industries.

24 And the references that my colleague presented today, supposedly in
25 the name of background technology, none of those references used -- not the
26 Hendrix reference, not the Jessen reference. Those references did not use or

1 employ that kind of an above-ground messenger wire supported cable
2 hanger system in solar.

3 The only reference that they cited to in the background section was
4 this 1984 UL report which was commissioned on behalf of the Department
5 of Energy. There's no indication -- there's been no evidence whatsoever that
6 that was even available to inform a POSITA prior to 2014.

7 Moreover, the reference specifically, unlike what AWM characterized
8 the reference in its briefings that it shows a use, it simply says may be
9 appropriate for and does not indicate that that kind of a system was ever
10 used in solar. So there's simply nothing inaccurate about Mr. Smith's
11 declaration, that nothing of this kind of a system had ever been employed in
12 solar before CAB implemented its system.

13 JUDGE CALVE: And just to clarify for the record and my
14 understanding. Thank you for that explanation.

15 The rejection, as I understand it, was the examiner did a 103 with Carr
16 in light of the applicant's admitted prior art which was Columns 1 to 2 of the
17 '291 patent. And then Mr. Smith came in and said, "Well, to the extent these
18 Columns 1 and 2 talk about hangers or cables from solar panels, that was
19 their own work. That's not admitted prior art. Nobody else did that." I get
20 that part. And that's all he spoke to.

21 My question is: The rest of that discussion in Column 1 talks pretty
22 clearly about the state of the industry and the prior art. There are array
23 panels. There can be AC. There can be DC. There can be data cables. All
24 of those are being organized. And perhaps they're being buried or put in
25 trays. But that's all admitted prior art, right?

26 The only thing -- the only thing that CAB is walking away from with

1 Mr. Smith, they're just saying, "The solar industry had these AC, DC, data
2 cables, and there was a 2014 NEC requirement. But nobody in the prior art
3 was using these cable hangers like we're claiming to organize those." Is that
4 it? So everything's prior art, except they use the cable hangers to organize
5 all these different cables. Is that my -- that's my understanding.

6 MR. FLYNN: Yes. There's no dispute that these kinds of cables,
7 whether it was only DC cables or whether after AC and data cables came
8 into play, there's no dispute that those cables were being supported. But
9 they were being supported by other means of cable management, primarily
10 trenching and, to a lesser degree, cable management.

11 So the novelty of the '291 and what Mr. Smith was referring to in his
12 declaration was that the use of that above-ground messenger wire that
13 supported cable hangers that, in turn, supported the electrical cables
14 extending from the solar panels. That's what had never been employed
15 before. That CAB system was the first of its kind to employ that kind of
16 cable system.

17 JUDGE CALVE: And so the example had Carr, which clearly shows
18 a configuration of a cable hanger on a messenger wire that separates cables.
19 And rather than saying you've just had a new use for this product on cables
20 in the solar industry, you were just issued the patent. This is what I
21 understand. Then you came back and walked away from this disclosure in
22 the background.

23 MR. FLYNN: Well, he understood that solar was a differentiating
24 aspect.

25 JUDGE CALVE: Um-hum.

26 MR. FLYNN: That Carr was in a telecommunications setting. And

1 so it didn't have anything to do with solar. Otherwise, if he didn't appreciate
2 from day one that the solar limitation was a distinguishing characteristic, he
3 could have easily and probably would have easily issued a 102 rejection
4 over Carr. But he always understood from issuing the 103 rejection that that
5 wasn't the case. That solar was an important part of this once he
6 understood -- or once his understanding of the applicant disclosed prior art
7 had been corrected.

8 JUDGE CALVE: Okay. Thank you.

9 MR. FLYNN: The only other thing I will say about the second of the
10 disputed claim terms is to whether organizing those cables means separating
11 those cables. As Your Honor had pointed out, the cable -- or the -- yeah, the
12 cable hangers themselves are specifically claimed to have multiple
13 cable-carrying surfaces with the carrier divider. That's clearly a hanger
14 structuring -- structure to separate those cables.

15 Now, as you also pointed out, the '291 patent can talk about
16 organizing, bringing them together, and separating. So it's not only
17 separating the cables that is part of the organizing, if you will, but the
18 organizing requires separating. That is a key element of the organizing
19 limitation of the claim.

20 And, again, that is provided for not only in the claim
21 language -- evident from the claim language, but it's clear from the
22 specification that that's the whole idea of these hangers when it talks about
23 the AC cables and the DC cables and the data cables. The whole idea is
24 organizing those cables -- separating those cables in the name of organizing
25 them and the idea separating them because the requirement of the
26 changed -- changes to the NEC in 2014 that required separation of AC and

1 DC cables from each other. And also, that required the separation of AC
2 and DC power cables from data cables.

3 That was the whole disclosure of that section of the specification that
4 gives, again, meaning to the claim "organizing" -- the claim term
5 "organizing" to require separating as part of that organization.

6 The only evidence -- and I'm on Slide 12 -- the only evidence that
7 AWM has submitted to an attempt to refute the claim construction of
8 "organizing" is a general dictionary definition. But the claim language itself,
9 the specification, the prosecution history, that's all intrinsic evidence. And
10 intrinsic evidence is to be given much greater weight than extrinsic general
11 dictionary definitions.

12 JUDGE CALVE: Well, Counsel, Judge Calve again.

13 Do we really need to reach this issue when the body of the claim itself
14 requires the cable hangers to have surfaces that separate the cables?
15 Wouldn't we have to -- have to require that out of any prior art anyway, even
16 if we don't find it in the preamble, in the term "organizing"?

17 MR. FLYNN: I agree with you that the hangers, the way that they are
18 recited and the limitations of those hangers and the independent and
19 dependent claims, that those hangers are required to separate cables, yes.
20 Again, we get into more of why that is significant in the motivation to
21 combine arguments.

22 But it's not that it's irrelevant, the proper construction of "organizing."
23 When we get into all of the issues and the grounds and the secondary
24 considerations, it's important to understand what the patent is disclosing,
25 what it is -- what is the invention of the '291 patent.

26 And it wouldn't be correct to simply take individual discrete parts and

1 to say, "Well, this is all that we need. And we don't even have to determine
2 whether the preamble was limiting the claim to a solar." It's important. It's
3 what gives all the weight to the secondary considerations that we've
4 discussed, that it is limited to solar.

5 Because those secondary considerations -- at least a lot of the
6 secondary considerations argument from the experts and the key industry
7 participants in solar, they're the ones that are coming up and saying this had
8 never been done in solar. So that is important to understand and to construe
9 the proper scope of the claims.

10 By the way, I'm on slide -- certainly, Dr. -- this is Slide 15. Certainly,
11 Dr. Kern provided in his testimony that a POSITA would understand that
12 "organizing" means separating the electrical cables. And that in his
13 deposition, that what he made clear was that organization begins with
14 separating those things. So, again, whether or not it also includes bringing
15 them together and supporting them, it begins with separating. That's the
16 whole idea.

17 And finally, Dr. Beik conceded that cable management, supporting
18 cables, separating cables is what the patent is about.

19 So not just to copy my colleague, but, again, in the interest of getting
20 to the focal point of the arguments for now, I will skip over Ground 1 about
21 whether Caveney itself discloses or renders obvious the claim limitations. I
22 will simply say that for the very reasons that we argued and the Board found
23 in its institution decision Caveney's cable hanger is not disclosed to be
24 disposed -- disclosed along and suspended from a messenger wire. It's a
25 hanger that was meant to be used and attached to preexisting building
26 structures in order to increase the capacity of cable -- of cable hangers or

1 cable support systems inside the building to support additional data-type
2 cables by attaching those hangers to the preexisting kinds of structures,
3 I-beams, other kinds of structures that the -- including a ladder rack that
4 already supported cables to attach Caveney's hangers to those
5 already-existing structures to be able to support even more cables than, for
6 example, a ladder rack could.

7 So Caveney doesn't disclose it. Caveney does not disclose a
8 messenger wire. And Caveney, obviously, does not disclose a hanger
9 suspended from a messenger wire. It clearly excludes messenger wire. It
10 does not include messenger wire from the structures that it's talking about in
11 its patent.

12 So I will go to Ground 3. To some extent, I will refer to -- it is a
13 similar argument. Whether it's a motivation to combine Caveney with Almy
14 or to combine Carr with Almy.

15 AWM, with the support of its expert, Dr. Beik, throughout its petition
16 and throughout Dr. Beik's declaration -- I'm on Slide 31 -- asserted that a
17 POSITA would have been motivated to either replace Almy's wire loops
18 with Caveney's hangers in Ground 2 or that a POSITA would have been
19 motivated to replace Almy's wire loops with Carr's hanger in Ground 3.

20 Both of those motivations to combine, they were very explicit, that the
21 motivation was to replace Almy's wire loops with Caveney's or Carr's
22 hangers. And that the reason that a POSITA would have been motivated to
23 replace Almy's wire loops with those hangers would be to prevent
24 cross-linking or cross-induction.

25 Back up a slide to Slide 30. A petition specifically said that a
26 POSITA would have been motivated to replace Almy's wire loops with

1 Caveney's hangers to prevent cross-linking. A POSITA would have been
2 motivated to replace Almy's wire loops with Carr's hanger to prevent
3 cross- induction. That's what the petition asserted.

4 Dr. Beik followed suit. Dr. Beik, Almy's wire loops, he understood a
5 POSITA would understand are unable to provide the required distance
6 between the cables to prevent cross- linking, and therefore, a POSITA would
7 have been motivated to replace Almy's wire loops with Caveney's or Carr's
8 hangers to prevent cross- induction. That was the sole basis of Petitioner's
9 motivation and Dr. Beik's motivation to combine these references.

10 We understood -- Patent Owner understood that that was Petitioner's
11 position. The Board's institution decision seems to suggest that the Board
12 understood that that was the Petitioner's position.

13 On Slide 32, we captured a couple of experts from the Board's
14 decision, in both cases replacing Almy's wire loops with Caveney's cable
15 hangers or with Carr's cable hangers. It was to prevent cross-linking,
16 cross-induction in Almy.

17 Going to Slide 33. The problem with the asserted motivation to
18 combine -- i.e., the motivation to replace Almy's wire loops with Caveney's
19 or Carr's hangers to prevent cross- induction in Almy -- there is no
20 motivation to do that because there is no cross-induction in Almy. That's
21 why we made clear and we had Dr. Beik confirm at his deposition that there
22 is no disclosure in Almy of anything other than DC cables.

23 Almy was a disclosure -- a patent application that went abandoned. It
24 was never used, but it was a disclosure that was filed back in 2009. That
25 was before this advent of increased use of trackers and different kinds of
26 cabling in the array. Back in Almy's time, that's what was in the array.

1 They were a fixed tilt systems and they had DC cables only extending from
2 the solar panels.

3 And to the extent that there were trackers, if there's any hint of a
4 disclosed tracker in the Almy disclosure, it is talking about a rigid bar drive
5 strut. And it would not be -- it would not result in the inclusion of AC or
6 data cables within the array as we have discussed. And Petitioner has never
7 disagreed or refuted that Almy only discloses DC cables. And most
8 importantly, Petitioner has never disputed -- let alone refuted -- that there is
9 no cross-induction effect between DC cables.

10 As a matter of fact, if you read Dr. Beik's deposition testimony, the
11 only thing he was concerned about was cross-induction between AC cables
12 and data cables. Regardless, DC cables are the only cables disclosed in
13 Almy. And there's no dispute that there is no cross-induction between DC
14 cables. And therefore, the POSITA in 2014, looking at Carr, looking at
15 Almy, would have realized there's no reason for me to replace Almy's wire
16 loops with Carr's hanger to prevent cross-induction. There isn't any
17 cross-induction there.

18 JUDGE CALVE: Counsel, Judge Calve.

19 I have a question about Carr.

20 MR. FLYNN: About Carr did you say?

21 (Speaking simultaneously.)

22 JUDGE CALVE: -- that Carr had what you called
23 telecommunications cables.

24 MR. FLYNN: Yes.

25 JUDGE CALVE: It seems like they're similar types of cables, yet
26 Carr discloses that they create a cross-induction effect between them. So

1 how is that different than having two DC cables next to one another?

2 What is it about Carr's identical types of cables that creates
3 cross-induction? Whereas you're saying DC cables wouldn't create a
4 magnetic field that would create cross-induction among themselves.

5 MR. FLYNN: It is understood that telecommunications cables, data
6 cables, signal wires, that if they are in close proximity to each other, that will
7 cause cross-induction. Dr. Beik did acknowledge that in his declaration.
8 And I believe Dr. Kern may have addressed that, as well.

9 But I know that Dr. Beik addressed that in his deposition, that, yes,
10 when you have those kinds of data cables next to each other, because -- and
11 forgive me, if -- I'm not an electrical engineer -- but as I understand it, the
12 alternating currents of the signals, the different wavelengths of the signals,
13 as Dr. Beik explained in the crossing magnetic fields in his declaration, that's
14 what results in the cross-induction effect.

15 But DC, you don't have that alternating current. It's just simple, direct
16 current without those variations. And there is not -- that's why there is no
17 cross-induction effect in DC cables only. But there can be cross-induction
18 effect in data cables only.

19 JUDGE CALVE: But the -- where does Carr call its cables "data
20 cables," or where does it describe the type of signals or data that's being
21 carried or transmitted by these cables?

22 MR. FLYNN: Carr calls them "telecommunications cables." And
23 that's what they would do to become telecommunications cables. They
24 would be transmitting signals. They would be considered to be signal wires.

25 JUDGE CALVE: Would they be transmitting voice and video --

26 MR. FLYNN: Yes. That -- no --

1 JUDGE CALVE: -- or large data types of signals or --

2 (Speaking simultaneously.)

3 MR. FLYNN: Back at that time -- Carr was 1945. So back at that
4 time, we're talking about telecom cables only. We're not talking about video
5 or anything more sophisticated than that. Back at that time, it was
6 sophisticated, but that's the kind of telecom signals that Carr is disclosing.
7 And there can be cross-induction between those kinds of cables, even if
8 there's no other kinds of cables in the vicinity.

9 JUDGE CALVE: And is that in the record somewhere that it gives a
10 little bit more of an understanding to what you've just described, that's not
11 really not in Carr?

12 MR. FLYNN: Well, Carr's -- refers to them as "telecommunications
13 cables." And I'm probably not going to be able to put my finger on the
14 portions of Dr. Kern's or Dr. Beik's declarations at this point -- or of Dr.
15 Kern's and Dr. Beik's depositions. But I do believe that, certainly, Dr.
16 Beik -- and I -- again, I believe that Dr. Kern also does discuss this kind of
17 thing about signal wires.

18 And if you recall, that was the idea about Caveney's cables. The
19 electrical cables in Caveney were high-performance data cabling. And there
20 was also a concern there about the cross-induction effect. And even
21 Petitioner, in its Ground 1 with respect to Caveney, did mention the idea of
22 having to separate those kinds of cables to prevent cross-induction.

23 JUDGE CALVE: Well, you've now wanted us to construe this system
24 as organizing cables from solar panels. And as of, I think, the filing date of
25 the '291, you've described in Column 1 the state of the art. People are
26 increasingly using AC power trackers to move panels that produce DC

1 current. And they might throw in a data cable.

2 So it seems the only way Almy's systems can enjoin the current state
3 of the art is with Carr's hangers are going to enable Almy to surmount that
4 chasm to be a fully functional in a solar plant that maximizes power by
5 following the sun.

6 Why isn't that a motivation if you're taking Almy -- or you're
7 improving the capabilities of Almy to do something that everybody wants to
8 do, that we want the preamble to cover anyway? So -- and you can maybe
9 say that's hindsight. But it's improving the capabilities, the power, and the
10 efficiency, and doing so at reduced costs because you got one hanger that
11 gets us all organized.

12 Why isn't that motivation under KSR? A known technique to improve
13 a similar device in a predictable manner.

14 MR. FLYNN: So I have two responses to that, Your Honor.

15 First of all, again, I can only reiterate and emphasize that that is not
16 what Petitioner argued in its petition. And that's is not what Dr. Beik ever
17 asserted in his declaration, this idea of increased use of trackers and data
18 cables. You won't find any reference in Dr. Beik's declaration to increased
19 use of trackers.

20 This is all something that developed after the time of Carr. The
21 petition and Dr. Beik's declaration, they didn't say anything about that being
22 a motivation to combine. The only motivation that Petitioner offered was to
23 replace Almy's wire loops with these hangers to prevent cross-induction.
24 The first time that they bring up increased use of trackers and offer an
25 additional notification to do what you're suggesting -- excuse me -- is after
26 we filed our Patent Owner response. After we deposed Dr. Beik. After we

1 got Dr. Beik to concede that, yeah, there is no cross-induction effect between
2 DC cables.

3 Then they come up -- they pivot with these two new motivations: 1,
4 the increased use of trackers and, 2, the 2014 NEC changes. But neither of
5 those was ever discussed in the petition or in Dr. Beik's declaration.

6 But where was it disclosed? It was disclosed in the '291 patent. The
7 '291 patent disclosed the increased use of trackers. And the '291 patent
8 include -- disclosed the NEC 2014 changes that required separation of AC
9 and DC cables. That's where it was disclosed.

10 But it wasn't disclosed in Almy. It wasn't disclosed in the
11 combination of Almy and Carr. It wasn't disclosed in the petition. And it
12 wasn't disclosed in Dr. Beik's declaration. And the rules require that -- that
13 Petitioner be held to the grounds and the evidence and the bases for their
14 grounds asserted in the petition. In their reply, they have gone beyond those
15 things. In fact --

16 JUDGE CALVE: Or what -- since we're -- I'm sorry.

17 Since -- I understand that. Since we're reading things into the
18 references based on knowledge and skill of the art, they're citing this NEC
19 rule for separating AC and DC cables. Why else would there be a rule to
20 separate an AC cable from a DC cable in a solar application, except that the
21 AC cables are well-understood to move the trackers? And as you've said,
22 even Almy, Figure 3, shows a tracker that's moving a panel. So they get you
23 almost partway there.

24 MR. FLYNN: Again --

25 JUDGE CALVE: And, again, if it's an AC tracker, that doesn't -- that
26 cable from that tracker doesn't have to come out of the PV module either.

1 So understanding the whole needs in the art, as you have admitted, prior art
2 at least what's going on in the solar industry, and it's in your preliminary
3 response and other papers. That seems undisputed. So why wouldn't you
4 understand the NEC rule is, if you will, shorthand for knowing that you got
5 these AC and DC cables because it's a solar application? That's what you
6 want us to weight the preamble for.

7 MR. FLYNN: Again, none of that was disclosed in their petition.
8 None of that was disclosed in in Dr. Beik's declaration. They didn't talk
9 about a POSITA under -- in that -- in their petition or declaration. They
10 didn't talk about a POSITA being aware of all of these things. They came
11 back after Dr. Beik's cross-examination. They came back after our Patent
12 Owner response, and that's when they brought these things up. They've gone
13 beyond the scope, impermissibly.

14 And so now you talk about what thing -- what -- these things that are
15 disclosed in a '291 patent and the requirements of the 2014 NEC changes.
16 Those things are disclosed there in the patent. But they don't rely on those in
17 their asserted combinations in their petition. They don't even come back
18 with a reply declaration from Dr. Beik to say anything. All of these new
19 bases for their Ground 3 argument is really all attorney argument. It's not
20 even supported by Dr. Beik's declaration. He didn't submit one.

21 So they've gone way beyond the scope of what they initially asserted.
22 And so the fact remains and the law remains that in doing the motivation to
23 combine or asserting a -- supporting the motivation to combine, this is the
24 Innogenetics case, that there was a requirement to provide a motivation to
25 combine the specific references. And the specific references that they relied
26 upon in their petition and in Dr. Beik's declaration was the combination of

1 Carr and Almy to replace Almy's wire loops with Carr's hanger to prevent
2 cross-induction in Almy.

3 Then they realized that doesn't work. And that's when they bring up
4 the increased trackers and the NEC changes. But those factors, those
5 industry developments, as Petitioner refers to them, they were disclosed in
6 the patent itself. It's a classic example of using the patent as a road map to
7 combine references just to be able to invalidate the patent.

8 JUDGE CALVE: Okay. Well, I'm looking at the petition, page 13.
9 And they're contending that the motivation to use Carr with the messenger
10 wire supporting cable management system of Almy would be particularly
11 strong because of this NEC change in 2014, specifically imposing a
12 requirement to separate AC and DC cables.

13 And, again, the understanding in the art is that these are separated
14 because they're both used in solar arrays to generate power and maximize
15 power. So why doesn't that support the rationale I just described? I don't
16 see why you're saying it's so limited.

17 MR. FLYNN: First of all, they're not discussing that on page 13 of
18 the petition. That's in the context of discussing background technology.
19 And there's -- we're not disputing and I'm not suggesting to you that a
20 POSITA was not aware of the 2014 NEC changes at that time.

21 But this is just describing the background technology, again, what a
22 POSITA was aware of. We're not disputing that. We're only taking issue
23 with that's not what they said in their grounds. And that has to be the focus
24 of the analysis. What did they assert in their grounds. And it wasn't that. It
25 was to prevent cross-induction by replacing Almy's wire loops with Carr's
26 hanger to prevent cross-induction in Almy.

1 And so it's -- just because they referred to these things, the 2014 NEC
2 changes, just because they refer to them in the background or prior art
3 section of their petition, it doesn't take away from the fact that these were
4 already disclosed in the '291 patent. And they were not included in the
5 asserted grounds.

6 So yes, it's easy to go back now after they -- after the
7 cross-examination of Dr. Beik and the concession that there's no
8 cross-induction effect between DC cables, it's easy to go back now and take
9 out what's disclosed in the patent and say, "That's our motivation. That's
10 what we meant to say." But that's not anything near what they say.

11 Ask your question.

12 JUDGE CALVE: No. On the petition, I guess, page 46, they say that
13 the skilled artisan would be aware of the benefits of spacing apart
14 current-carrying and noncurrent-carrying cables to prevent cross-linking,
15 right? And they cite to their expert -- or their testifying -- Dr. Kern's -- or
16 Dr. Beik's declaration. and they want to use the hangers in the solar power
17 electric array to provide separation.

18 Why isn't providing separation to meet the Code because the Code
19 requires separation. Isn't that another reason --

20 MR. FLYNN: So, again --

21 JUDGE CALVE: And you're saying --

22 MR. FLYNN: I'm sorry. I didn't mean to interrupt you.

23 JUDGE CALVE: That's fine.

24 MR. FLYNN: Again, you cited, I believe, page 46 of their petition,
25 and page 46 of the petition cites to Paragraph 98 of Dr. Beik's declaration.
26 But respectfully, I point you, again, to that page 46 of their petition where it

1 specifically says at the beginning of the last paragraph of that page -- and I
2 think that's what you were referring to -- "A POSITA would have
3 recognized the disadvantages of using wire loops to suspend multiple types
4 of electrical cables from the messenger wire."

5 "For example, as Carr teaches, there is a benefit to spacing apart
6 conductors in order to prevent the cross-induction effect between
7 conductors. Moreover, a POSITA would have been aware of the benefits of
8 spacing current-carrying and noncurrent-carrying cables in order to prevent
9 cross-linking."

10 And citing to paragraph 98 of Dr. Beik's declaration, that's what Dr.
11 Beik is talking about, that there would have been motivation to separate
12 those cables to prevent cross-linking. So oh, everywhere in their petition,
13 everywhere in Dr. Beik's declaration, that's the asserted motivation, to
14 prevent cross-linking in Almy.

15 JUDGE CALVE: Okay. Thank you.

16 MR. FLYNN: With respect to the NEC changes, AW- -- contrary to
17 what AWM has argued in its briefing and in its argument today, that
18 somehow the NEC counseled a POSITA to use above-ground messenger
19 supported cable hangers, that type of a cable management system of solar,
20 it's just not correct. That's not what the NEC did at all.

21 In fact, the provision from the NEC -- the new provision that required
22 separation of AC and DC cables, which was -- I believe it was -- you'll have
23 to forgive me. With all the exchanges we've been having, I'm falling behind
24 in my slide presentation. So I -- I'm not -- I kind of lost where I am in the
25 slides.

26 But in any event, I believe it was Section 690.31(B) of the 2014 NEC

1 that is -- that adds that new provision of separating DC and AC cables. And
2 in that new provision, the only thing that is enumerated -- the only means of
3 separating the cables enumerated in that section, it says nothing about
4 messenger wires. It says that it requires -- that the cables must be separated
5 in such things as cable trays, raceways, and outlet junction boxes. It doesn't
6 say anything about messenger wire with hangers.

7 I want to make sure that I got the -- the code section correct. I did.
8 It's 690.31(B). That's the new 2014 provision that requires separation of AC
9 and DC cables. It doesn't say anything about messenger wires. To suggest
10 that the NEC counseled POSITAs to use that kind of a system in a
11 solar -- and Article 600, by the way, is the article of the NEC that
12 specifically pertains to solar.

13 To suggest that the NEC counseled a POSITA to use that kind of a
14 system -- like CAB's system -- in solar is -- simply distorts, to say the least,
15 the new provision of the NEC.

16 Your Honor, in a way -- in a sense, I think we would all acknowledge
17 that obviousness -- the obviousness analysis is somewhat of a fiction.
18 Trying to figure out today what a POSITA would have thought obvious or
19 what references a POSITA would have thought to combine back in 2014,
20 that's why there's such a temptation to be easily -- to easily resort to
21 hindsight bias.

22 But what we've got is concrete evidence that urges against any notion
23 that it would have been obvious to combine Carr and Almy, replacing
24 Almy's wire loop with Carr's hanger back in 2014, or for that matter, any of
25 the other reasons that you're -- that we've been discussing with the additional
26 AC and data cabling.

1 JUDGE CALVE: Let me ask you a question about your response on
2 page 42. You seem to acknowledge here that this Figure 3 has this rigid bar
3 drive strut that drives the photovoltaic module tracker. And it's controlled
4 by the motor. It's powered by electrical cables that may include AC or DC
5 power cables.

6 Isn't that your two types of power cables? And maybe they're not
7 located -- you're saying they're on the periphery of the array. But they're in
8 the array. And they can be hung separately with these Carr trackers. I
9 mean, we're right back, I think, to square one here, again, where there's a
10 reason to separate them, even in Almy itself, even if you don't look at
11 Column 1 in the '291 patent.

12 But it would seem anything that improves the capabilities makes it
13 more efficient, produces more power in a less -- a less expensive way would
14 be a pretty good motivation.

15 MR. FLYNN: Actually, Your Honor, again, respectfully, that's not
16 quite correct.

17 What we're specifically arguing on 42 and, I think, what Dr. Kern
18 explained in his declaration is that those -- to the extent that there is a rigid
19 bar drive strut tracker that could be disclosed in Almy, there may be a AC
20 cable that powers the motor to operate that. But that would not be within the
21 solar array. Any of those AC cables would be outside of the solar array.
22 They would never come into contact -- or in close proximity with the DC
23 cables.

24 That's just -- that's not -- that's why we made it a point to explain that
25 those cables are not in the array. They're on the periphery of the array.
26 They don't reach a point where they have to be or would be in close

1 proximity to DC cables to invoke the need to separate the DC cables from
2 the AC cables so that they're not in close proximity with one another. They
3 would never be in close proximity with one another. And that's what Dr.
4 Kern, I believe, also explained in his declaration.

5 JUDGE CALVE: Well, I don't understand that because Figure 3 of
6 Almy is showing this unnumbered little tracker element, the circle in the
7 lower left. Then it seems to be connected by this bar to a floatable tank,
8 right? They seem to be located very closely together, as in they're
9 connected. So I don't see where this grand separation or great separation of
10 AC and DC cables occurs, at least not in Almy's Figure 3.

11 MR. FLYNN: By the way, Your Honor, again, I would point out that
12 I respect the questions that you're asking. And I'm going to do my best to
13 respond to them. These are not arguments that AWM has ever made.
14 They've never disclosed or disputed -- I'm sorry. They've never disputed
15 that Almy does not disclose AC cables.

16 But to answer your question, what it showed in Figure 3 is that rigid
17 bar drive strut. But the motor that powers that is on the periphery of the
18 array. And so it's not like today's trackers where the AC cables are being
19 driven -- I'm sorry -- that the trackers are being driven or powered by AC
20 cables that are within the array.

21 Today they are there. And that's why you do have to worry about
22 separating DC cables from AC cables in today's solar arrays. But at the time
23 of Almy, that wasn't the case. And with the rigid bar drive strut, those -- if
24 you will look at Figure 6, that's what describes the -- or depicts the
25 cables -- the DC cables, extending from the solar panels or the solar array, if
26 you will.

1 Now, if those AC cables that are driving Almy's rigid bar drive strut,
2 if they're anywhere in that array that they're gonna be in close proximity
3 with those cables, then you've got an issue. And then maybe you have that
4 motivation to separate those DC cables from those AC cables based upon
5 what the POSITA knows in 2014 that you have to separate the cables.

6 But by Almy's disclosure, it would not be the case that any AC cables
7 that power that rigid bar drive strut are within the array, that in any way
8 would be in close proximity to only DC cables.

9 JUDGE CALVE: What's your basis? That's your expert's speculation
10 that you're suggesting -- or speculating. You're speculating. The Figure 6
11 and Element 602, the array, it's a rectangle. One end has DC wires coming
12 out. There's a tracker attached to another end, perhaps, with AC cables.
13 And if nothing else, I mean, Almy hints at the future, right? This 2014
14 change shows what the industry is doing and. They're trying, with their
15 regulatory mechanisms, to kind of address the way things are going.

16 And Almy even hints at that. So they're -- Petitioner's just suggesting
17 that Almy's gonna be improved by using Carr's hangers. It gives you
18 flexibility to expand and configure these arrays a number of different ways.
19 That's a motivation. And then that's tied to that NEC change. People -- the
20 reason the NEC changes is because that's what technology's for. It's not
21 floating in space, right?

22 MR. FLYNN: Again, I can only -- excuse me. You asked me what
23 the basis is for our argument, that there would be no AC cables in the array
24 in close proximity to Almy's DC cables. Dr. Kern, who is one of the gurus,
25 if not the grandfather of the solar industry, he has, based on his experience,
26 his expertise, and his review and analysis of the Almy disclosure, describes

1 very clearly that those cables that would power the motored powers, the
2 rigid bar drive strut would not be within the array. It's not speculation. It's
3 based upon what he understands and his experience -- extensive experience
4 in those types of solar arrays and solar installations. And it's not really
5 speculation.

6 And it's not rebutted by AWM. They never came back and said,
7 "With Dr. Beik" -- of course, Dr. Beik couldn't have rebutted it. Dr. Beik
8 acknowledged in his deposition that he's never even been to a solar plant.
9 But they never came back with any evidence, whether from Dr. Beik or any
10 other source, to say, "You're wrong about what Almy discloses or doesn't
11 disclose."

12 Dr. Kern's experience gives the basis. It's not speculation. It provides
13 the basis for the argument that we have made, that those -- any AC cables in
14 Almy would not be in the vicinity of the DC cables.

15 JUDGE CALVE: Okay. Yeah. Thank you for clarifying. That's
16 very helpful.

17 And you're getting close to, like, 17 minutes. And I know I've been
18 asking a lot of questions. I'll just apprise you of the time.

19 MR. FLYNN: Thank you. I'd like to go back -- what I was
20 starting to say earlier and then you had another question for me. I was
21 going to refer you to AWM's Slide Number 37, where they make it a point
22 that the motivation, again based on these industry developments that they
23 never argued in their petition, the motivation to use messenger wire and
24 hanger-based cable support systems in solar is confirmed by the inventor.
25 And they refer to Mr. Smith's testimony that prior to 2014, SunPower
26 reached out to CAB. And as they also note correctly that SunPower is

1 Almy. Or Almy is SunPower.

2 So, again, this -- in the name of resisting to the best of our ability this
3 hindsight bias that easily creeps into our obviousness analysis, SunPower
4 and Almy, obviously who would qualify as POSITAs, here they are, prior to
5 2014, reaching out to CAB. And yet they have available to them their own
6 Almy application disclosure from 2009. They had available to them Carr's
7 disclosure that's nearly 70 years old.

8 And yet there's no indication that it is obvious to SunPower, who's
9 more than a POSITA, "Hey, why don't we take Carr's hanger and use it to
10 replace Almy's wire loops, our own Almy's wire loops, or at least something
11 like it? Why can't we just manufacture or redesign our own Carr hanger to
12 replace -- to redesign Carr's hanger to replace our own Almy's wire loops?"

13 They reach out to CAB. They reach out to CAB and say, "Do you
14 guys have anything? Do you guys have anything as to -- or any idea how we
15 can do this or what we might do in a solar installation?"

16 Mr. Smith testified that the SunPower representative who contacted
17 him was aware of their mining products, but obviously, they didn't think that
18 they could use those mining products in solar. And they obviously never
19 gave any thought -- even assuming that this fictional thing that the Carr
20 referenced from 70 years ago would be on the table or that they would be
21 aware of it. They never thought it was obvious to combine Carr with Almy.
22 They're going to CAB. And CAB is the one, for the first time, who comes
23 up with their system.

24 JUDGE ENGELS: Also, doesn't that work the other way, too?
25 SunPower went to CAB even though CAB did not have any products in the
26 solar market?

1 MR. FLYNN: Well, they asked CAB if CAB had any products or any
2 ideas. But CAB was the one who developed it. My point is that they went
3 to CAB instead of relying on references that they clearly would have been
4 aware of, their own Almy application and Carr's hanger.

5 And it wasn't obvious to them to combine those references in a way
6 that would come up with the '291 invention. It wasn't obvious to them. And
7 that's the significance of them reaching out to CAB. CAB then was the one
8 who came up with the invention and the way to apply this kind of cable
9 management system in solar.

10 Your Honors, may I ask a question of clarification. Is that 11 minutes
11 and 30 seconds all we have left of this -- of our primary argument? Because
12 I want to make sure --

13 JUDGE ENGELS: Yes.

14 MR. FLYNN: -- that I give our lead practitioner a chance to argue the
15 secondary considerations evidence.

16 I do have other things -- but maybe I can reserve it for rebuttal -- to
17 say about what they were arguing about the nexus and the discussion about
18 the nexus between the secondary considerations evidence in the claimed
19 invention. But if it's okay, I can come back to that in rebuttal so I make sure
20 I can give Mr. Madison a chance to participate.

21 JUDGE ENGELS: Yes.

22 MR. GALICA: Your Honors, as a point of clarification, if I may, is it
23 my understanding that the 15 extra minutes is only for the lead practitioner
24 and that lead counsel's time has now expired, as he's gone over his 60
25 minutes.

26 MR. FLYNN: That was really not my understanding, Your Honor. I

1 thought that we had a total of 75 minutes. We just had to make sure that we
2 gave Mr. Madison a meaningful opportunity to argue, but not that the extra
3 time was all for Mr. Madison and I couldn't use any portion of it.

4 JUDGE CALVE: So how much time do we have left here, total, for
5 Patent Owner? It's 11 minutes?

6 JUDGE ENGELS: About 11 minutes, yes.

7 JUDGE CALVE: Well, I've been peppering Patent Owner's counsel
8 with questions. We'll give Patent Owner another five minutes. And,
9 Petitioner, you can have another five minutes as well. So we want to give
10 everybody their day. We want to get to the bottom of this, so...

11 MR. GALICA: Thank you for the clarification, Your Honor.

12 JUDGE CALVE: Yeah. Thank you for bringing that up.

13 Both of you are doing exceptional jobs presenting your cases here.

14 And let me throw a good one at you, Mr. Madison, here since we're
15 gonna segue with what your predecessor has just said.

16 Since you're doing secondary considerations, if the solar industry was
17 coming to CAB for ideas, why was it that solar industry was -- why was it
18 such rampant, widespread industry skepticism that even contemplating the
19 use of what CAB does with messenger wires and hangers, that you had to
20 get Brooks Engineering to test -- SolarPro to test? It doesn't sound that
21 something's adding up here to me.

22 MR. MADISON: Yes, Your Honor. And I'm going to go to Slide 58
23 to start to directly -- to start addressing that question with, really, that
24 skepticism was a result of the long-felt need in the solar industry. And the
25 SolarPro article, Exhibit 1011, described PV wire management as the
26 Achilles' heel of the majority of PV installations.

1 Now, as AWM points out, this SolarPro article existed prior to CAB
2 entering the scene with its standard system. But as we see here, existing
3 cable management options, such as trenching on the left of this slide,
4 trenching is extremely difficult. It's extremely inefficient. You have to dig
5 giant trenches, bury the cables. And then if something needs repaired, you
6 have to dig it all back up again and do it all over again.

7 The same thing with cable trays; very inefficient. These were used for
8 rooftop applications they were trying to then apply to the solar industry.
9 And if we compare the trenching on the left to the CAB picture on the right,
10 it really --

11 JUDGE CALVE: I apologize. What slide are you on? My apologies.
12 I missed you.

13 MR. MADISON: 58, Your Honor.

14 JUDGE CALVE: Thank you. I'll try to keep up with you here.
15 Sorry.

16 MR. MADISON: Yeah. So in Slide 58, we see that -- the trenching
17 picture on the left and how complicated the trenching was and how CAB
18 solved this long-felt need by simplifying the issue in the terms of it's a
19 brand-new cable management system that the solar industry had never seen
20 before.

21 Now, we say on Slide 59 here that it is the norm for new solar
22 technologies to be faced with significant industry skepticism. And we agree
23 with that. It's not that CAB's standard system was simply introducing a new
24 component to the solar industry that had to go through testing. This was a
25 never-before-seen system, above-ground cable management system with a
26 messenger wire structured to be suspended above the ground. No one had

1 ever seen that in the solar context before. So CAB was faced with increased
2 skepticism compared to normal solar industry components.

3 And a good example of this is extreme environmental conditions. So
4 you have wind, and with trenching and cable trays, wind's not really a
5 problem. They're either under the ground or on the ground. But the CAB
6 standard system is almost above the ground at human height. So the wind
7 there actually provides significant disadvantages, and it is why the industry
8 was skeptical.

9 JUDGE CALVE: Okay. Let me ask you about that, then, Mr.
10 Madison.

11 MR. MADISON: Yeah.

12 JUDGE CALVE: What aspect of CAB's standard system addresses or
13 overcomes these extreme environmental conditions?

14 MR. MADISON: Yes, Your Honor. So the extreme environmental
15 conditions such as wind, it addresses that because the hangers are
16 structured to be disposed along and suspended from. So by being disposed
17 along, they're structured to be at a certain distance from one another. So if
18 the wind blows the hangers, blows the cables, the cables aren't gonna move
19 along the messenger wire, if that makes sense. The cables are structured to
20 stay in place, disposed along that messenger wire.

21 And that sort of ties in to the safety concerns with the messenger wire
22 being at human height. In trenching, you don't have concerns of running
23 into the cables. In cable trays, they're on the ground. But if you're walking
24 through a solar array and you have conductors at human height, you're going
25 to run into those and potentially electrocute yourself. So there's more
26 concerns --

1 JUDGE CALVE: Hold up. Let me ask you: So you have very broad
2 language, though, with these cable hangers, as opposed to some of the
3 previous claims and patents that issued off of this disclosure. So your
4 hangers are disposed along and suspended from a messenger wire. I don't
5 see any structure here or tensile steel or anything that allows these cable
6 hangers to really grip onto a messenger wire in what you've described as
7 high-wind conditions.

8 And as a follow-on, it seems like one of the aspects that might address
9 extreme environment would be the piers and the pier mount kits, the pier
10 mount kits that are part of the standard system but aren't part of this claims
11 of the '291 patent.

12 So right away we're running into features of the standard system that
13 drive customer demand, features of the standard system that overcome
14 industry skepticism, that are not claimed in this '291 patent. Those are
15 claimed in other patents, but they're not commensurate with the claim scope.

16 And another feature, while I'm at it, are these PVC plastisol coatings.
17 Those give you UV radiation exposure resistance. They give you the ability
18 not to short things out. They give you a 25-year design. We don't have any
19 of those materials or features claimed here yet. A lot of that's what's driving
20 the demand. And the case law from our -- from the Federal Circuit's pretty
21 clear. If it's unclaimed features that are driving demand for things that are
22 not claimed, that are credible, then that tends to undercut nexus. And it
23 tends to undercut commercial success and overcoming skepticism.

24 Do you understand my concern here?

25 MR. MADISON: Yes, I think so, Your Honor.

26 So the -- with the hangers themselves, we would argue that they're

1 critical claimed features of the '291 invention and the standard system. And
2 if -- I'm on Slide 55 here. If we see on the top right of Slide 55 that picture
3 of CAB's standards -- a picture of CAB's standard system, we see that the
4 hangers themselves have that interlocking mechanism on the top. And that's
5 what helps keep them disposed along the messenger wire at certain intervals,
6 which I believe is on the record that it's -- it has NE- -- to do with NEC
7 requirements.

8 So it's that aspect of Claim 1, especially that the hangers are critical
9 claimed features, that helps overcome all of this industry skepticism that's
10 not just specif- -- not just generalized skepticism in the industry, but it's
11 specific to CAB's standard system itself.

12 JUDGE CALVE: I understand. I'm not trying to ambush you here.
13 But the original patent that issued off this application was 9,722,405. And
14 the claims there, you got really specific about exactly what you're arguing
15 here. You got specific about a high-tensile strength wire with opposing ends
16 and how it locks on and grips the messenger wire.

17 Specifically, you're claiming in another patent what allows this to be
18 disposed along and suspended from a messenger wire in high wind. I don't
19 see any of those features in this claim. And that's what I'm concerned about
20 in finding a nexus that really supports overcoming skepticism and
21 commercial success.

22 MR. MADISON: And, Your Honor, I would say to that that the claim
23 for independent Claim 1 of the '291 patent is generally for the system where
24 it has the limitations of the cable hanger. And it's generally understood,
25 from the specification itself, that those cable hangers are disposed along the
26 messenger wire at certain intervals. And that, in itself, ties it to the standard

1 system overcoming the skepticism that it was based.

2 JUDGE CALVE: Okay. Let me ask you another way. Doesn't Carr
3 have that same feature? So wouldn't someone say that feature's actually a
4 prior art feature? It's not really new to the '291 patent. Of course, things for
5 tensile, they -- they lock onto a messenger wire so that they stay in place.

6 What are you claiming different.

7 MR. MADISON: Your Honor, I would say that in this -- and, again,
8 Carr was in the telecommunications context where --

9 JUDGE CALVE: Um-hum.

10 MR. MADISON: -- it's clear on the record that these
11 telecommunication cables are much lighter than PV conductors that we see
12 in a solar array. So we have a newer -- a never-before-seen use in the solar
13 context of the '291 invention here.

14 JUDGE CALVE: Um-hum.

15 MR. MADISON: In terms of the cable hangers disposed along the
16 messenger wire.

17 Does that answer your question?

18 JUDGE CALVE: Well, it does. But you have -- if you have Slide 55,
19 that's further to my question. So you're also talking about this PV
20 Magazine's giving an award. And the award is due to the PVC coating. You
21 have a specific dielectric breakdown strength. You have flame retardants.
22 You have UV stabilization, abrasion resistance. These are all features that
23 the industry is praising. I don't see any of those features in the claims in the
24 '291. It's the same issue.

25 MR. MADISON: And, Your Honor, that PVC coating is Dependent
26 Claim 11 in the '291 patent where it specifically limits in Dependent Claim

1 11 the specific coating on the hangers.

2 And regarding this PV Magazine article on Slide 55 here -- it's Exhibit
3 2016 -- we see that it's clearly referring to the standard system as a whole. It
4 describes it as highly innovative and durable products.

5 JUDGE CALVE: Um-hum.

6 MR. MADISON: This is for the standard system. It's an array
7 changer. It's one of 50 key components making PV shine. And this -- and
8 by showing the picture of the standard system itself and not just the coating
9 of the hangers, it's showing the messenger wire. It's showing the hangers.
10 It's showing the cables. The PV Magazine article is clearly dedicated to the
11 standard system.

12 JUDGE CALVE: All right. Well, doesn't CAB's 2010 catalog -- I
13 think Petitioner put that in, Exhibit 1- -- 1029. CAB's been winning awards
14 for quite a while for their PVC-coated rings that look quite similar to what
15 you have here in Slide 55.

16 So, again, it's sort of a prior art feature that's been out there quite a
17 while. Exhibit 1029, page 14. It even shows your use of two rings to
18 suspend cables separately, not from a unitary hanger, but even that concept
19 is there.

20 So -- and it shows these rings suspending electric cables from
21 messenger wires out in the outdoors, you know, and plants, mills, open pit
22 lines, pipelines. So it seems like it was widely known that this hanger
23 configuration and coatings would work pretty well. So, again, I don't see
24 anything that's too new here.

25 (Speaking simultaneously.)

26 MR. MADISON: And, Your Honor, in response to that, I would say,

1 again, that the PV Magazine article is for the system as a whole and not just
2 the coatings.

3 And if we see here on Slide 54, Exhibit 2009, the Intersolar
4 AWARD -- CAB was a 2014 Intersolar AWARD finalist. And it's clear
5 from the record of Allen Smith's testimony that this was for the standard
6 system. He filled out the application. He had to explain why the standard
7 system was useful, how it was helpful, the benefits that it provided. And
8 now AWM argues that this is unsupported inventor testimony.

9 But at the same time, they haven't refuted it. They haven't said that
10 Allen Smith is lying. They've presented no evidence otherwise that this isn't
11 for the standard system. And I think the record is clear that the praise CAB
12 received that the standard system is what it's talking about.

13 And I'm out of time here, Your Honor. If you would like me to
14 continue, I can, but...

15 JUDGE CALVE: We'll give you a few more minutes. I've been
16 taking up a bit of your time. Thank you for your answers. They're very
17 helpful.

18 MR. MADISON: Your Honor, I wanted to address the question you
19 had asked opposing counsel about the nexus to copying. That was one of
20 your concerns earlier. And I want to use the extra time I have to address
21 that.

22 So on March 19th, 2015, CAB provided, under NDA, samples of its
23 cable hangers, including its two-carrier hanger, and engineering drawings to
24 First Solar. After that meeting on September 15th, CAB received -- I'm on
25 Slide 49 here. This is Exhibit 2013 -- CAB received a bid request from First
26 Solar for 2 million hangers. And attached to that bid request we see on --

1 JUDGE CALVE: That's really great. I understand all that. And then
2 Slide 50 is the drawing that this other -- was it SolarPro that came back and
3 said, "We want bids on this"?

4 So you're saying this design on Slide 50 is what was copied from what
5 Mr. Smith gave to somebody. That doesn't look like anything we've seen. It
6 doesn't look like the three-carrier hanger in Mr. Kern's appendix. And it
7 doesn't look like that two-carrier hanger that we have in the '291 patent you
8 just showed us a commercial product on.

9 MR. MADISON: Yeah.

10 JUDGE CALVE: So where's the nexus here that shows this particular
11 style is something -- we don't have any showing that this is what Mr. Smith
12 gave him, and we don't have a showing that this is commensurate or
13 coextensive with the claims, do we?

14 MR. MADISON: Your Honor, I think that's in conjunction with
15 AWM's argument, that we don't really have an independent analysis. And
16 they cite to the wires and the cable electronic cases for that assertion. But
17 they don't say that an independent analysis is needed.

18 If we see on the next slide, page 51, after CAB received that quote
19 request, CAB immediately confronted First Solar. And in the highlight in
20 here, we say, "Understandably, we were very surprised to see the attached
21 drawing of a CAB hanger as a First Solar design." First Solar never
22 responded.

23 So we see, again, on Slide 52 where, again, CAB said this "is a
24 proprietary design for which we are seeking patent protection."

25 And then on Slide 53 here, we see multiple examples throughout the
26 years of CAB's two-carrier hanger design that was provided to First Solar at

1 that meeting. So we have cont- --

2 JUDGE CALVE: Well, where is -- where is that in the record that
3 ties that together, that that design was provided to personnel at Solar Pro-- I
4 don't have any --

5 MR. MADISON: Yes, Your Honor. On Allen Smith's declaration,
6 Exhibit 2006, paragraph 51, he says that the hanger that -- that First Solar
7 engineering drawing was essentially identical to the hanger that he provided
8 to First Solar at that confidential meeting under NDA.

9 JUDGE CALVE: Yeah. But that doesn't look identical. That's my
10 problem. So Exhibit 1032, 13, Slide 53, you're showing the two-carrier
11 hanger which looks exactly like the figures in the '291 patent, your primary
12 embodiment.

13 MR. MADISON: Yep.

14 JUDGE CALVE: That doesn't look identical to Exhibit 2013, page 2.
15 It doesn't look identical to the drawing. Or am I missing something?
16 They're similar.

17 MR. MADISON: Well, in response -- in response to that, Your
18 Honor, I would say that the case law does not require it to be identical. So in
19 the wires and the cable electric cases, all they say is access to a patented
20 product, combined with substantial similarity is evidence of copying. And
21 CAB's saying, "Look, hey, this is identical to what we gave you. It's a
22 higher burden than substantial similarity."

23 JUDGE CALVE: Right. Right. Well, him saying it's identical tends
24 to make me doubt that he's talking about this Exhibit 1032, 13, because it's
25 not identical. It makes me wonder if he's talking about something else.
26 That's the doubt in my mind. That's what I'm trying to clarify.

1 MR. MADISON: Yeah. And I would say in response to that, Your
2 Honor, that AWM has not refuted our evidence --

3 JUDGE CALVE: Um-hum.

4 MR. MADISON: -- in terms of Allen Smith saying that it's not -- that
5 it's essentially identical. They don't argue that it's not identical. They're just
6 saying that we haven't provided some independent analysis, which is not a
7 requirement by the patent owner to show evidence of copying. It's clear
8 from the case law that all we have to show is access combined with
9 substantial similarity.

10 JUDGE CALVE: Um-hum.

11 MR. MADISON: And if we see on Slide 53 here, we see what CAB's
12 two-tier hanger designs look like, and then we see what the First Solar
13 engineering drawing looks like, it is clear that there's substantial similarity in
14 this case. So we have clearly shown nexus, as we would argue.

15 JUDGE CALVE: Why do you think there's substantial similarity?
16 This one that looks like your Figure 1 has that extra data carrier loop which
17 is missing. It locks onto the cable differently. I mean, assuming they did
18 copy, I mean, maybe this is evidence they were trying to design around and
19 not infringe your patented drawings. It looks like they're trying to do things
20 a little differently. And assuming that they even were given something that
21 looks like what's in the panel. That's all.

22 I mean, you guys are the experts. There's specific reasons each of
23 these designs has the little coils and the hooks and loops that they do. And
24 yet in one for Exhibit 1032, 13, that looks a lot different than the one in
25 Exhibit 2013, 2. That's all.

26 According to your own patent, you have reasons that you do all these

1 different features. That's all. And you're making very good arguments. I
2 understand you.

3 MR. MADISON: No, I appreciate that, Your Honor. And, again, I
4 would just emphasize that AWM has not refuted any of this evidence, other
5 than requiring unduly burdensome requirements on the patent owner to show
6 some type of complete independent analysis.

7 And I think your concerns are -- generally, the concern is in the case
8 law that you just don't want any infringing product to be accused of copying,
9 right?

10 That's not the case that we have here as they had in the wires and the
11 cable electric. It's clear that they had confidential access. And then that is
12 combined, as we see in on Slide 53, with that substantial similarity, which is
13 corroborated with the evidence from Allen Smith saying, "Hey, that's our
14 hanger."

15 JUDGE CALVE: Okay. Well, his -- as I recall, his declaration was
16 more generalized. He said, "We gave them some drawings and some
17 things." He doesn't provide copies of those with his declaration, so we really
18 don't know, other than what's in his mind that he remembers. And all we
19 have him saying is, "Well, this drawing that we got back is now identical to
20 what we gave them." And I don't see anything that's identical. That's all. It
21 makes me wonder what he gave them. And the record's not clear. That's all.

22 MR. MADISON: And I would, again, stress that the requirement is
23 not that it be identical. It's just substantial similarity. And we see from
24 Exhibit 2014, again, they're very surprised that the attached First Solar
25 drawing is a CAB hanger.

26 JUDGE CALVE: Um-hum.

1 MR. MADISON: So it's clear that CAB thought it was a CAB
2 hanger. And that's -- and, again, AWM does not refute this assertion.

3 JUDGE CALVE: Okay. Let me ask you one question, your opinion.
4 I went through Dr. Putnam's spreadsheet. And he has over 50 to 60 different
5 three-carrier, four-carrier, five-carrier hangers listed with sales. And all I
6 see for Dr. Kern is a nexus to those two in his appendix. Why is that those
7 two-, three-carrier hangers, why should that provide a nexus for all of these
8 other carriers?

9 What's your position on that? I don't understand how that scales.

10 MR. MADISON: And, Your Honor, in terms of presumption of
11 nexus and the commercial success with Dr. Putnam, I would defer to my
12 co-counsel on those two issues.

13 JUDGE CALVE: Gotcha. Okay. Sure enough.

14 MR. MADISON: And I realize that I'm out of -- that I'm out of time
15 here, so I can end it on that, if you want, and defer to my co-counsel to
16 answer those questions or continue to answer any questions you have.

17 JUDGE CALVE: I think that's fine. No, you've answered all my
18 questions very well. Thank you.

19 MR. MADISON: Thank you, Your Honor.

20 JUDGE CALVE: Okay. I guess it's Petitioner's opportunity for
21 rebuttal.

22 MR. GALICA: Yes. And I may have to go back and finish
23 something.

24 And just so I'm aware, will I be afforded any additional time? I don't
25 know if I'll actually need it. It kind of depends on what questions you may
26 have. But just so I'm --

1 (Speaking simultaneously.)

2 JUDGE CALVE: We'll ramp it up to 10. How's that sound?

3 MR. GALICA: Okay. Thank you. I appreciate it.

4 (Recess)

5 MR. GALICA: So I guess I'll start where Patent Owner left off with
6 respect to the secondary considerations. And, Your Honor, I think you've
7 put your finger on it when it comes to any category or bucket secondary
8 consideration evidence that they're attempting to rely on. They simply
9 haven't demonstrated a nexus between that evidence and any claimed feature
10 of the invention.

11 So I -- and the pushback from Patent Owner that we are attempting to
12 require an independent analysis, I'm not entirely sure what that means.
13 We're actually just requiring some analysis. And it's been nothing but a
14 conclusory say-so statements of counsel. So we simply think that there's no
15 nexus that has been presented to them between any secondary consideration
16 bucket and a claimed feature of the patent at issue here.

17 Unless you have a specific question or area you would like me to
18 focus on, I plan to address the motivation to combine with respect to Ground
19 3, so the Carr/Almy in view of the knowledge of POSITA.

20 And, Your Honor, I think you put your finger on it at various points
21 throughout your questioning of Patent Owner's counsel, that the approach
22 that Petitioner took in the petition and followed up on in the reply was
23 perfectly in line with the KSR framework.

24 When you look at Almy -- and I'll do my best to sequence it in
25 response to some of the points that Patent Owner made. When you look at
26 Almy, though, and recalling the actual contention that was made in the

1 petition, you acknowledge that patent -- Petitioner addressed the NEC
2 change. And then you likened it to the need to eliminate cross-induction.
3 And, in fact, they're one and the same.

4 So I think that's exactly what the motivation to combine was. And
5 you put your finger on the other issue: That in looking at Almy and
6 understanding what some of the wide range -- and I'm quoting from the KSR
7 framework -- the wide range of needs created by developments in the field
8 of endeavor, it would have been an entirely obvious -- obvious choice to
9 address the inclusion of new and additional types of cables and use Carr's
10 cable hanger to do that.

11 And I think addressing some of the specific aspects of the Almy
12 reference itself, Patent Owner's counsel put a lot of weight in what Dr. Kern
13 said with respect to how a POSITA would understand what Almy discloses
14 and what a person of ordinary skill in the art would understand was going on
15 at the relevant time frame.

16 And I think Patent Owner's counsel is correct. And Dr. Kern
17 says -- just make sure I've got it -- numerous things with respect to the
18 presence and quantity of AC, DC, and power cables that a POSITA would
19 understand at the time. And I'll specifically reference his declaration. It's
20 2038, paragraphs 42, 50, and 56.

21 And, again, it was what everybody knew at the time, that there was an
22 increased number of trackers. This resulted in increased number of AC, DC,
23 and data cables. And that prior to 2014, a POSITA would have known that
24 they were all bundled and commingled together.

25 Now, Dr. Kern, with respect to Almy, takes the position -- despite
26 saying all of that, that you would always bundle them together, they would

1 always be commingled -- is saying with Almy, they might not be. And he
2 relies on the rigid bar drive strut as a reason that the AC would be further
3 away, even though I think Your Honor put your finger on it again.

4 It doesn't seem in line with the disclosures, the figures, and the
5 descriptions in Almy Figure 3, Figure 6, the tracker, how it's located and
6 arranged with solar panels. And they're all on the same grid. They're not far
7 apart from each other. But, nonetheless, Dr. Kern speculates that a rigid bar
8 drive strut would be used. And it would remove the AC cables from
9 proximity to the DC cables.

10 Almy states the exact opposite. In paragraph 15 of Almy, it says that
11 based on the embodiments of the invention, it allows you to move away
12 from a rigid bar drive strut. So Dr. Kern's only reason for saying that AC
13 cables and DC cables would not be in close proximity to one another in
14 Almy is refuted by Almy.

15 And also, Patent Owner's counsel made the suggestion that
16 Petitioner's expert, Dr. Beik, said that there were no other types of cables,
17 that there weren't data cables, AC cables. But he stated the opposite in his
18 testimony. In his deposition -- and I'll have to get the exact exhibit
19 number -- but on page 143 to -- line 24 to page 144, line 4, Dr. Beik states
20 that there would be data cables -- at least data cables coming from the solar
21 panel array that are used for -- in conjunction with the tracking and
22 monitoring of the trackers themselves.

23 So those would be in con- -- proximity to the data cables which would
24 present another independent reason why somebody looking at Almy,
25 understanding the evolution and trends in the industry and the explicit
26 disclosure of the NEC stating that you need to separate the different types of

1 cables, would be motivated to include Carr into Almy, the teachings of
2 Almy. And that is perfectly in line with what is required by the KSR
3 framework.

4 And to the extent that Patent Owner took issue with any refinement or
5 elaboration of that argument that was made in the petition in the first
6 instance, it's perfectly permissible in view of Rembrandt Diagnostics, LP,
7 versus Alere, Inc., 76 F.4th 1376, at pages 1382 to 85. It's a Fed Circuit
8 2023 case which addresses when it is permissible to expand upon or refine
9 or better articulate arguments made in the petition in response to pushback in
10 a patent owner response. And it states that a reply is a permissible
11 expansion to previously raised arguments. And it involves replies merely
12 expanding upon the rationale in the petition.

13 And that's exactly what occurred. Dr. Beik laid out the foundation of
14 what a POSITA would understand. Petitioner did the same, in that there's
15 this NEC change, January 1st, 2014, requiring the separation of cables.

16 Your Honor put your finger right on it; that is one and the same
17 tantamount to, you know, a motivation to eliminate cross-induction in
18 different cables. And then that was -- the same was stated in Petitioner's
19 request. So the argument has always been made and it was the same in the
20 reply in response to Patent Owner's arguments in its responsive papers.

21 With that, I don't have anything else to add, unless any of Your
22 Honors have questions of me.

23 JUDGE CALVE: No, I think not. I think that's fine. Thank you very
24 much for clarifying those issues.

25 MR. GALICA: Okay. Thank you.

26 MR. FLYNN: I will try to take just a few more minutes. And thank

1 you for the extra time, Your Honors.

2 Let me start my surrebuttal by saying that what my colleague just
3 referred to as paragraph 15 of Almy purely mischaracterizes what paragraph
4 15 of Almy says.

5 Paragraph 15 is only talking about its wire-based hanging wireway
6 system and means of securing cables as an improvement over securing those
7 cables with wire ties attached to the rigid bar drive strut. It says nothing
8 whatsoever about AC cables in the Almy array.

9 Secondly, the NEC in 2014 -- and I believe, again, this is supported by
10 Dr. Beik's testimony on cross-examination. That separation of AC and DC
11 cables required by the 2014 NEC is not for purposes of cross-induction.
12 That's what I mentioned earlier before, that Dr. Beik, in his testimony, was
13 not concerned about cross-induction between DC and AC cables. That was
14 just about cable management to be able to -- better able to -- be better able to
15 differentiate AC cables from DC cables so that during maintenance, the
16 maintenance person would understand what cables he's touching. It had
17 nothing to do with cross-induction.

18 And I come back to what I can only emphasize as much as I can. The
19 idea that these new arguments that they made in their reply about increased
20 use of trackers and the 2014 NEC changes that they never remotely argued
21 in their grounds, in their petition.

22 These arguments are brand-new. They never argued it. It was all
23 about preventing cross-induction in Almy. And it was only when Dr. Beik
24 acknowledged that there was no cross- induction. That's when they pivoted
25 to these arguments in reply.

26 Judge Calve, you asked my colleague about, you know, where in the

1 disclosure or the claims of the '291 patent about the cable hanger needing to
2 be disposed along and retain in place.

3 I would simply point out that the Board acknowledged that kind of
4 disclosure in the '291 patent in its institution decision. On page 4 of the
5 institution decision, it talked about the Figure 2. And it's showing the
6 hanger and the locking hanger and allowing it to engage the messenger wire.

7 And on page 5, it specifically says, "To retain hanger 10 securely in
8 place on wire 12." It was in the context of discussing the limitation of
9 'disposed along' and 'suspended from' the messenger wire. It's understood
10 from that claim limitation, in the claim itself, it's understood that that's part
11 and parcel of being disposed along the messenger wire.

12 And finally, I'll just take a couple of minutes to address the nexus
13 issues that we have discussed. You've made reference to the number of part
14 numbers that Dr. Putnam referred to, the 50 or 60 different part numbers,
15 and that he didn't draw his conclusions -- he didn't draw the link between his
16 analysis and all of those part numbers.

17 It is not necessary to establish nexus for Dr. Putnam or Dr. Kern to
18 have identified every single part number of every hanger or every messenger
19 wire or every mid-pier kit that is part of the standard system.

20 It is only necessary for them to draw the link, the nexus between the
21 claimed standard system as a whole and the claimed invention. The
22 component parts, the hangers alone do not practice the invention. It matters
23 not that the hang- -- that CAB has various hangers that are covered by
24 multiple patents. There's only one patent that covers the '291 system and
25 that is the '291 patent.

26 There are not multiple patents that cover the standard system. There

1 are no patents that cover the mid-pier kits or the end-pier kits. And as Dr.
2 Kern explained, those are just one means of suspending the messenger wire.
3 They're a convenience. They're not critical to the claimed invention itself.
4 You can use other means to suspend that messenger wire. It's an unclaimed
5 feature that is not critical to the functionality of the standard system. And it
6 is a feature that is not covered by any other patent.

7 The information that Dr. Putnam relied on with respect to the
8 identification of the numerous hangers and other parts of the standard system
9 that we referred to, that is actually Exhibit 2046. And what that is in the
10 context of -- you need to keep in mind -- is that CAB also submitted the
11 declaration from its VP -- vice president of finance and their records
12 custodian that specifically testified in that declaration that those are all parts
13 that are included in the standard system. That the sales identified on that
14 exhibit are sales of the standard system.

15 They don't have sheets. They don't maintain their records, "How
16 many standard systems did we sell," because there are multiple variations of
17 components that can comprise the standard system. But what --

18 JUDGE CALVE: Right. But let me -- so yeah. The VP of finance
19 said they're part of the standard system, but she didn't opine on whether they
20 were covered by the patent, right, by the '291 patent?

21 MR. FLYNN: But that's what I'm saying. She -- nobody has to
22 say -- she certainly did not say that. And nobody has to say that each one of
23 those hangers is covered by the '291 patent, because the patent doesn't cover
24 individual hangers. The patent owner's insist- --

25 (Speaking simultaneously.)

26 JUDGE CALVE: Well, let me ask you just for the sake of argument.

1 Dr. Putnam's spreadsheets included one-carrier cable hangers. But he didn't
2 include those in his calculations. Or maybe he did. So is a one-carrier cable
3 hanger that's part of the standard system -- is that still covered by the claims
4 in the '291 patent?

5 MR. FLYNN: No. You're exactly right. They're not part of the
6 standard system. They may be sold at times along with the standard system,
7 but the one-carrier hanger is not part of the standard system.

8 And Dr. Putnam expressly excluded sales of one-carrier hangers and J
9 hooks from his analysis. All that's necessary to show the nexus between the
10 various secondary consideration, including CAB's commercial success that
11 shows a 36 times increase of sales from year to year compared to a 6X
12 growth in industry benchmark.

13 All that's necessary is for them to say, "Here's the standard system."
14 This is one embodiment that discloses -- or one embodiment of the standard
15 system. They're not required to put together every single embodiment and to
16 do a claim chart that maps this hanger and this hanger and this hanger in
17 various -- variations of the standard system.

18 All they have to do is say, "Here's our standard system," which Dr.
19 Kern did do. In his claim chart, he pointed from the installation guide. He
20 identified CAB's standard system, what they called a standard system, by the
21 way, long before this litigation was commenced -- any litigation was
22 commenced. "This is our standard system." All he has to do is to say -- and
23 he did identify a couple of part numbers, by the way, in his claim chart.
24 That's all he has to do, is say they're representative.

25 If this is the system where it's a multicarrier hanger suspended from
26 the messenger wire, with carrier divider -- multiple carrier surfaces with a

1 carrier divider, this is an example of the system. And this is what CAB sells
2 as its standard system. That's all he has to do. That draws the nexus. He
3 doesn't have to show every possible embodiment of that system and identify
4 every -- or confirm that ev- -- that a part number that he did identify are
5 representative of every hanger of the parts.

6 JUDGE CALVE: Well, how many -- how many embodiments are
7 you aware of encompassing the standard system? Because he addressed
8 two.

9 MR. FLYNN: Well, so --

10 JUDGE CALVE: And it looks to me like there's at least 50 or 75.
11 There's probably even more, right? So is 2 out of 75, is that -- you're saying
12 that's good enough?

13 MR. FLYNN: The embodiments -- the variations of the embodiments
14 primarily depend upon the number of carrier surfaces of the hanger. So as
15 you pointed out earlier, there are two-, three-, four-, five-carrier -- even more
16 now -- of CAB's hangers, carrier surfaces.

17 So it doesn't make any difference whether the embodiment that we
18 identify, the exemplary embodiment, utilizes a two-carrier hanger or whether
19 it utilizes a three- or a four- or a five-carrier hanger. It's still a carrier as -- I
20 mean, a hanger as claimed with multiple cable- carrying surfaces suspended
21 from the messenger wire structured to support cables extending from solar
22 panels. That's all he has to do to draw that nexus. He doesn't have to map
23 every time they sell a standard system that utilizes three-carrier hangers
24 instead of two-carrier hangers.

25 JUDGE CALVE: Yeah. Okay. I think -- I think we understand your
26 position. Let's -- yep. All righty. Like I said, I think -- okay. Yeah.

1 So one thing he did include in the sales numbers is the cost of the
2 mount kit. So I mean -- and you also included the integrated system --
3 (Speaking simultaneously.)

4 MR. FLYNN: I'm sorry. The cost of the what?

5 JUDGE CALVE: So there's other things being -- running into these
6 numbers and sales numbers. But, yeah, I think we understand your position
7 on that. We'll take that under advisement and look at it. And I think --

8 MR. FLYNN: Yeah. I missed what you had said about these
9 including the cost of the what kits did you say?

10 JUDGE CALVE: Mount kits for piers.

11 MR. FLYNN: The mount kits, like, the mid-pier kits, he's including
12 those?

13 JUDGE CALVE: Yes.

14 MR. FLYNN: Yes. So he's including those because they're part of
15 the standard system that the CAB sells, and so therefore, the sales of the
16 standard system -- what's important is that the standard system embodies the
17 claims of the patent and that they are coextensive with the patent.

18 And they are, because these mounting kits or the mid-pier kits are
19 nothing more than unclaimed features; again, one way of doing it, but not
20 critical to the functionality of the claim system. Other ways of suspending
21 that he could -- that could be included in the standard system components.

22 And the sales figures and the excess -- the amount of excess CAB
23 sales over industry benchmark is so great that it is clear that what's driving
24 those sales is -- includes -- is initially, up until 2018 when it was only the
25 standard system. And then from 2018 on, it includes, at least, the benefits
26 and the features of the '291 invention.

1 JUDGE CALVE: Um-hum.

2 MR. FLYNN: And the reasons is that they -- that AWM and its
3 expert had offered as to why that's not an appropriate benchmark. For
4 example, again, this increased use of trackers concept, no explanation
5 whatsoever as to how the increased use of trackers would have increased the
6 cable -- the amount of cables by so much that it would have accounted for a
7 six times greater excess of CAB sales than industry benchmark.

8 Thank you. I appreciate it, Your Honor.

9 JUDGE CALVE: Okay. Thank you.

10 MR. FLYNN: If you have any more questions, I'm happy to address
11 them.

12 JUDGE CALVE: Anyone have any other follow-on questions?

13 JUDGE IPPOLITO: No.

14 MR. FLYNN: Thank you.

15 JUDGE CALVE: I'm going to check with our court reporter and see
16 if she has any follow-up questions for either counsel.

17 THE COURT REPORTER: No, sir, I do not.

18 JUDGE CALVE: Or me.

19 THE COURT REPORTER: No, sir. I'm good.

20 JUDGE CALVE: Or -- okay. All righty. All right, everyone.

21 Well, thank you to all the parties and everyone for appearing before us
22 today. The argument was exceptional. The briefing's been really, really
23 good. You both did an exceptional job representing your clients and
24 focusing the issues that we need to decide. And they're very close issues, as
25 you can tell from the argument.

26 And unless there's anything else, we will take this under advisement.

1 And we are adjourned. Thank you again for appearing. And we appreciate
2 you answering all of our questions. And one more minute here.

3 JUDGE ENGELS: Any questions from the court reporter?

4 THE COURT REPORTER: No, sir. I don't have any questions.

5 JUDGE CALVE: Okay. Is that it? And any questions, Judge Engels
6 or

7 Judge Ippolito?

8 JUDGE IPPOLITO: No.

9 JUDGE ENGELS: No.

10 JUDGE CALVE: Okay. Well, thanks again for appearing. We really
11 appreciate you answering our questions and wish you a safe trip home.

12 MR. GALICA: Thank you.

13 MR. FLYNN: Thank you, Your Honors.

14 MR. MADISON: Thank you, Your Honors.

15 (Whereupon, the proceedings at 3:56 p.m. were concluded.)

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