

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TESLA, INC.,
Petitioner

v.

CHARGELOGIC LLC,
Patent Owner

Case IPR2026-00377
U.S. Patent 10,090,567

PATENT OWNER'S PRELIMINARY RESPONSE

TABLE OF CONTENTS

EXHIBIT LIST	5
I. INTRODUCTION	8
II. LEVEL OF ORDINARY SKILL IN THE ART	10
III. PETITIONER’S INCONSISTENT AND UNEXPLAINED CLAIM CONSTRUCTION POSITIONS WARRANT DENIAL.....	10
A. “cost of power” (Claims 1[c], 8[e], 15[e])	10
B. “threshold level of battery charge” (Claims 15[d]).....	15
IV. PETITIONER FAILS TO CARRY ITS BURDEN ON ANY GROUND	16
A. Ground 1	16
1. Claim 1[a]: [Pre] “the vehicle charger comprising: [a] an electrical power cord releasably attachable to at least one of the vehicle and a power source”	16
2. Claim 1[b]: “a third controller electrically coupled to the electrical power cord; at least one of a transmitter and a receiver coupled to the third controller and adapted for communication with the first controller and the second controller”	20
3. Claim 1[c]: “wherein the third controller is responsive to at least one signal from the first controller by automatically changing a charging state of the vehicle charger at a time associated with a cost of power to the battery reaching a threshold cost of power to the battery, the at least one signal related to a cost of electrical power, changing the charging state of the vehicle charger including automatically starting charging when the cost of electrical power is equal to or less than the threshold cost of power,”	24
4. Claim 1[d][i]: “wherein the third controller is responsive to at least one signal from the second controller by changing a charging state of the vehicle charger to start charging,”	30
5. Claim 1[d][ii]: “the at least one signal from the second controller	

	being received by the third controller in response to a user selecting a user-manipulable control on a screen associated with the second controller”	41
6.	Claim 3: “The vehicle charger of claim 1, further comprising a display coupled to the third controller, the display displaying a level of charge of the battery.”	48
B.	Ground 2	48
1.	Claim 15[a]-[b]: “[a] a display mounted within the vehicle within reach of a user seated within the vehicle; [b] a user-manipulatable control within reach of the user seated within the vehicle and by which a user can enter a time of day; and”	48
2.	Claim 15[d]: “wherein the controller supplies electric power to the battery if a level of battery charge is below a threshold level of battery charge independent of the time of day entered by the user, the controller supplying electric power to the battery at least until the threshold level of battery charge is reached,”	55
3.	Claim 15[e]: “wherein the controller automatically starts battery charging when a cost of electrical power to the battery is equal to or less than a threshold cost of power to the battery, and”	61
4.	Claim 15[f]: “wherein the controller is responsive to at least one signal from the remote controller by changing the supply of electric power to the vehicle battery to start charging, the at least one signal from the remote controller being received by the controller in response to a user selecting a second user-manipulable control on a screen associated with the remote controller.”	61
C.	Ground 3	62
1.	Claim 8[b]: “a display coupled to the controller and adapted to display a time; and”	62
2.	Claim 8[d]: “wherein the controller automatically changes the supply of electric power to the vehicle battery during the course of the charging session by at least one of a group consisting of increasing a rate of charge of the battery, decreasing the rate of	

charge of the battery, starting battery charging, and stopping battery charging based at least in part upon the time needed to charge the vehicle battery by the time of day entered by the user,” 63

3. Claim 8[e]: “wherein the controller automatically changes the supply of electric power to the vehicle battery at a time associated with a cost of power to the battery reaching a threshold cost of power to the battery, wherein changing the charging state of the vehicle charger includes automatically starting charging when the cost of power to the battery is equal to or less than the threshold cost of power, and” 67
4. Claim 8[f]: “wherein the controller is responsive to at least one signal from the remote controller by changing the supply of electric power to the vehicle battery to start charging, the at least one signal from the remote controller being received by the controller in response to a user selecting a second user-manipulable control on a screen associated with the remote controller.” 67

D.	Grounds 4–9	69
V.	PETITIONER’S VOLUMINOUS, REPETITIVE AND CONCLUSORY “MTC” AND “REOS” ARGUMENTS WARRANT DENIAL.....	69
VI.	PETITIONER’S OBVIOUSNESS THEORIES IMPROPERLY FOCUS ON INDIVIDUAL CLAIM ELEMENTS RATHER THAN THE INVENTION AS A WHOLE.....	70
VII.	PETITIONER’S DECLARANT IS ENTITLED TO LITTLE OR NO WEIGHT.....	71
VIII.	PETITIONER FAILS TO PRESENT A SUFFICIENT NUMBER OF GROUNDS THAT MEET THE INSTITUTION THRESHOLD	71
IX.	PETITIONER VIOLATES THE WORD COUNT REQUIREMENTS.	72
X.	CONCLUSION.....	72

EXHIBIT LIST

Exhibit No.	Description
2001	March 26, 2025 USPTO Memorandum on Interim Processes for PTAB Workload Management, available at https://www.uspto.gov/sites/default/files/documents/InterimProcesses-PTABWorkloadMgmt-20250326.pdf (“Process Memorandum”)
2002	March 11, 2026 Squires Memorandum on Additional Discretionary Institution Considerations – U.S. Manufacturing and Small Business Use of AIA Proceedings, available at https://www.uspto.gov/subscription-center/2026/uspto-issues-additional-discretionary-institution-facts (“Small Business Memorandum”)
2003	Excerpts from File History of U.S. Patent Application 18/298,152 (issuing as U.S. Patent No. 12,272,189)
2004	USPTO Reexaminations – FY 2026, Quarter ending 6/30/2026, available at https://www.uspto.gov/sites/default/files/documents/reexamination-op-stats.pdf
2005	Tesla, Inc. Form 10-K for the Year Ending December 31, 2025
2006	Complaint for Patent Infringement and Jury Demand, <i>ChargeLogic LLC v. Tesla, Inc.</i> , C.A. No. 7:26-cv-00100 (W.D. Tex. March 23, 2026)
2007	Shareholder Deck for Q2 2026 Update, Tesla Investor Relations, July 22, 2026, available at https://assets-ir.tesla.com/tesla-content/IR/TSLA-Q2-2026-Update.pdf
2008	NHTSA Part 583 American Automobile Labeling Act Report for 2026, available at https://www.nhtsa.gov/part-583-american-automobile-labeling-act-reports
2009	CM/ECF Docket Report, <i>ChargeLogic LLC v. Tesla, Inc.</i> , C.A. No. 7:26-cv-00100 (W.D. Tex.) (as of August 23, 2026)

Exhibit No.	Description
2010	Joint Proposed Scheduling Order, <i>ChargeLogic LLC v. Tesla, Inc.</i> , C.A. No. 7:26-cv-00100, Doc. 34-1 (W.D. Tex. Aug. 10, 2026)
2011	RESERVED
2012	Expert Declaration of Samuel Russ, Ph.D.
2013	U.S. Patent No. 8,427,103
2014	U.S. Patent No. 9,950,635
2015	Tesla Home Charging Website, <i>available at</i> https://www.tesla.com/home-charging (last accessed Aug. 26, 2026)
2016	RESERVED
2017	U.S. Patent No. 8,618,771
2018 - 2020	RESERVED
2021	U.S. Patent No. 8,004,109
2022	Apple, “Apple Reinvents the Phone with iPhone” (Jan. 9, 2007), <i>available at</i> https://www.apple.com/newsroom/2007/01/09Apple-Reinvents-the-Phone-with-iPhone/ (last accessed Sept. 9, 2026)
2023	RESERVED
2024	The American Heritage Dictionary (2 nd College Ed. 1982) – “remote” definition
2025	Microsoft Computer Dictionary (5 th Ed.) – “remote PC” definition
2026	Microsoft Computer Dictionary (3 rd Ed.) – “remote terminal” definition
2027	U.S. Patent No. 10,809,829

Exhibit No.	Description
2028	U.S. Patent No. 11,258,107 (“the ’107 Patent”)
2029	Tesla, “Elon Musk,” <i>available at</i> https://www.tesla.com/elon-musk (last accessed Sept. 15, 2026)

I. INTRODUCTION

Petitioner fails to carry its burden of demonstrating a reasonable likelihood that any challenged claim is unpatentable.

First, the Petition advances an express construction that Petitioner never explains and never supports. Petitioner’s *own expert* does not endorse that construction; he states only that he was “instructed by counsel” to apply it. Because every asserted ground is premised on that construction, and Petitioner offers no alternative, Petitioner cannot meet its institution burden. *Infra* Section III.A. Moreover, Petitioner cannot reconcile the claim construction position it takes on “threshold level of battery charge” with the express construction it proposes for the same phrase in a concurrent related IPR. *Infra* Section III.B.

Second, the Petition errs “by collapsing the obviousness analysis into a hindsight-guided combination of elements.” *Leo Pharm. Prods., Ltd. v. Rea*, 726 F.3d 1346, 1354 (Fed. Cir. 2013). Petitioner “use[s] hindsight reconstruction to pick and choose among isolated disclosures in the prior art to depreciate the claimed invention.” *In re Fine*, 837 F.2d 1071, 1075 (Fed. Cir. 1988). As but one example fatal to the entire Petition, Petitioner not only illogically proposes implementing the alleged “second controller” of Sutardja on a “home computer” per Kelty-218, Petitioner further proposes relocating the “second controller” to a different location at the home in Sutardja despite *no prior art* supporting this additional modification.

Infra Sections IV.A.4.a, B.4.a, C.4.a. Petitioner proposes this awkward hindsight-biased theory because it is attempting to reach the “remote” controller requirement of the claims.

Third, even if the references could be combined as proposed, the combinations *still* would not teach the challenged independent claim limitations. For instance, even assuming Sutardja and Kelty-218 would have been obvious to combine as proposed, the combination would *still* fail to result in a “remote” controller. *Infra* Sections IV.A.4.b, B.4.b, C.4.b.

Unsurprisingly, Petitioner cannot identify prior art reasonably supporting obviousness. In 2008—the priority date Petitioner applies—consumer EVs and EV chargers were in their infancy; the first Tesla Roadster was introduced that year. Ex. 2029. Modern smartphones were also brand new, the first iPhone® having been released only in mid-2007. Ex. 2022. The claimed invention was novel, which is why Petitioner cobbles together six references and asserts *twelve* distinct obviousness combinations (under “MTC” subheadings) based on rationales that do not withstand the slightest scrutiny. The maze-like Petition with tiered “MTCs”—confusingly dispersed across dozens of claim limitations—is a textbook example of improper hindsight. Institution should be denied.

II. LEVEL OF ORDINARY SKILL IN THE ART

Petitioner’s proposed level of ordinary skill requiring experience in unspecified “automotive systems” is too generic—experience with transmissions, cooling systems, and other unrelated systems would not contribute to skill in the relevant art. Pet., 1; Ex. 2012 ¶ 43. Petitioner’s specification of “electric vehicle battery charging systems” (Pet., 1) is also too narrow, excluding those with significant experience in electric battery charging systems for non-vehicle applications. Ex. 2012 ¶ 43. The level of ordinary skill requires only two years of experience with electric battery charging systems, of whatever application. *Id.* Patent Owner agrees that experience or training may offset less formal education and vice versa. Patent Owner relies on Dr. Samuel Russ, who qualifies as a POSITA under either party’s definition. *Id.* ¶ 44.

III. PETITIONER’S INCONSISTENT AND UNEXPLAINED CLAIM CONSTRUCTION POSITIONS WARRANT DENIAL

A. “cost of power” (Claims 1[c], 8[e], 15[e])

Petitioner applies the “ordinary and customary meaning of the claim terms” to all terms but one: “cost of power,” which appears in all three independent claims. Pet., 3 (“For all terms *not* included below, Petitioner applies the ordinary and customary meaning of the claim terms.”); *Id.* (“*Otherwise*, Petitioner applies the

plain and ordinary meaning of all claim terms”).¹ Petitioner expressly proposes it be construed to mean “monetary price of power.” *Id.* at 3. Petitioner’s entire discussion of that construction is as follows:

Petitioner proposes that the phrase “cost of power” be construed as “monetary price of power.” See claims 1[c], 8[e], 15[e]. *See e.g.*, EX1001, 18:7-8 (“desired cost of power (e.g., \$0.50/hr....”). Otherwise, Petitioner applies the plain and ordinary meaning of all claim terms.

Id. Petitioner thus states its proposed construction in a single sentence, followed by unexplained citations to the claims and a single sentence from the specification. This unsubstantiated claim construction position warrants denial.

First, “[w]here a petitioner specifically relies on a particular construction of a claim term in order to demonstrate unpatentability, ***particularly a construction different from the ordinary meaning***, that claim construction is part of the unpatentability analysis, and the petitioner ***must provide a sufficient basis to support that construction.***” *Samsung Elecs. Am., Inc. v. Cobblestone Wireless, LLC*, IPR2024-00319, Paper 16 at 20 (PTAB June 24, 2024). Petitioner expressly applies this express construction throughout the Petition without alternatively asserting unpatentability under plain and ordinary meaning. *See e.g.*, Pet., 24 (“Petitioner

¹ All ***italic-bold*** emphasis and alterations have been added unless otherwise indicated.

applies the claim construction for *cost of power* as “monetary price of power. *See* §III.C.1.”). Despite relying on this construction in every asserted ground, Petitioner fails to support it. Petitioner never explains how that single specification sentence—Ex. 1001, 18:7-8—supports deviating from the ordinary meaning, nor alleges express redefinition or clear disavowal of claim scope. *See Thorner v. Sony Comp. Entm’t Am. LLC*, 669 F.3d 1362, 1367 (Fed. Cir. 2012) (plain and ordinary meaning applies “***unless the patentee explicitly redefines the term or disavows its full scope.***”). The relied-upon sentence says “*e.g.*” before “\$0.50/hr” and therefore cannot support redefinition or disavowal. Ex. 2012 ¶ 48. This absence is underscored by Petitioner’s expert, Scott Andrews, declining to endorse the construction despite opining on countless other issues. Ex. 1003 ¶ 28 (stating that he is applying this construction because he “has been instructed to” by counsel).

Second, as Tesla recognizes, express construction is necessary only to resolve invalidity. *See, e.g., Tesla, Inc. v. Bulletproof Prop. Mgmt., LLC*, IPR2026-00229, Paper 2 at 8 (filed Jan. 23, 2026) (“No formal claim constructions are presently necessary because ‘***claim terms need only be construed to the extent necessary to resolve the controversy.***’”) (quoting *Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011)); *Tesla, Inc. v. Perceptive Automata, LLC*, IPR2025-01577, Paper 1 at 18-19 (filed Oct. 10, 2025) (“Because there is no need for claim construction to determine that the cited prior art renders all Challenged Claims

obvious, Petitioner does not present any constructions.”). Having departed from the plain and ordinary meaning of a term recited in every claim, Petitioner was required to explain why the departure is warranted and why the express construction is necessary to resolve its grounds of invalidity. Its failure to do either justifies denial. Ex. 2012 ¶ 48.

Third, Petitioner’s own expert does not support the construction. Mr. Andrews states only:

I have been instructed to apply the following claim construction for purposes of this proceeding:

“cost of power” (claims 5, 11, and 19) – monetary price of power.

Ex. 1003 ¶ 28 (bold in original). He offers no opinion that the construction is correct or that a POSITA would have understood the phrase that way—a startling omission given that Mr. Andrews affirmatively opined on many other issues without needing to state that he was relying on any comparable instruction from counsel. Ex. 2012 ¶ 49. In fact, he does not even identify the correct claims, which are claims 1, 8 and 15.

It appears then that Mr. Andrews does not agree with the construction. Had he agreed, he would have said so, just as he offered other opinions without being

“instructed by counsel.”² Ex. 2012 ¶ 49. That Tesla relies on its experts for claim construction in other IPRs confirms the point. *See, e.g., Tesla, Inc. v. Intellectual Ventures II, LLC*, IPR2025-00638, Ex. 1003 ¶¶ 39-43 (filed Mar. 3, 2025) (Tesla’s expert opining on the construction of “said processing”). Expert opinions that merely apply a construction supplied by counsel, without disclosing underlying facts or reasoning, are entitled to little or no weight. 37 C.F.R. § 42.65(a); *see Xerox Corp. v. Bytemark, Inc.*, IPR2022-00624, Paper 9 at 15 (PTAB Aug. 24, 2022) (precedential). Moreover, Petitioner advances a construction its own expert declined to endorse and never explains that absence of support. *See Revvo Techs.*, IPR2025-00632, Paper 20 at 3–5 (precedential); *see also Tesla, Inc. v. Intellectual Ventures II LLC*, IPR2025-00340, Paper 18 at 3-4 (Director Nov. 5, 2025) (informative) (vacating institution where Tesla failed to explain inconsistent claim construction positions).

In short, the disputed phrase appears in every challenged independent claim; the only construction Petitioner offers for it is unsupported by any explanation or evidence; Petitioner does not allege invalidity under its plain and ordinary meaning;

² The strategy of petitioners applying a patent owner’s purported claim construction from co-pending litigation is generally no longer permissible. *See Revvo Techs., Inc. v. Cerebrum Sensor Techs., Inc.*, IPR2025-00632, Paper 20 at 3–5 (Director Nov. 3, 2025) (precedential).

and Petitioner's own expert applied it solely at counsel's direction. Petitioner therefore cannot show "a reasonable likelihood" that any challenged claim is unpatentable, and institution should be denied.

B. "threshold level of battery charge" (Claims 15[d])

Institution should also be denied because Petitioner takes inconsistent claim construction positions across proceedings without explanation. *Revvo Techs.*, IPR2025-00632, Paper 20 at 3–5. Petitioner is concurrently challenging related U.S. Patent Nos. 11,258,107 and 11,721,844 in IPR2026-00378 and IPR2026-00380, respectively. Those patents share a common specification with the '567 Patent. Petitioner expressly proposed that "threshold level of charge" in the '107 Patent and '844 Patents *not* be accorded its plain and ordinary meaning, but instead be construed to mean "a level of charge that is less than the charge level at which charging stops." *See Tesla, Inc. v. ChargeLogic LLC*, IPR2026-00378, Paper 1 at 2-3, 12; *Tesla, Inc. v. ChargeLogic LLC*, IPR2026-00380, Paper 1 at 2-3, 9. Although those phrases lack the additional term "battery" present in the phrase here, there is no plausible basis for construing it differently in patents that are all directed to a *battery* charger. Ex. 2012 ¶ 50. Nor is the inconsistency academic: if plain and ordinary meaning suffices in this proceeding, Petitioner cannot explain why a departure from that meaning is necessary in the '107 and '844 IPRs—and if the departure is necessary there, Petitioner's mapping here is unsupported. *Id.* This

unexplained inconsistency warrants denial, particularly in light of recent Director precedent. *See, e.g., Revvo Techs.*, IPR2025-00632, Paper 20 at 3–5 (precedential); *see also Tesla, Inc. v. Intellectual Ventures II LLC*, IPR2025-00340, Paper 18 at 3–4 (informative) (vacating institution where Tesla failed to explain inconsistent claim construction positions).

IV. PETITIONER FAILS TO CARRY ITS BURDEN ON ANY GROUND

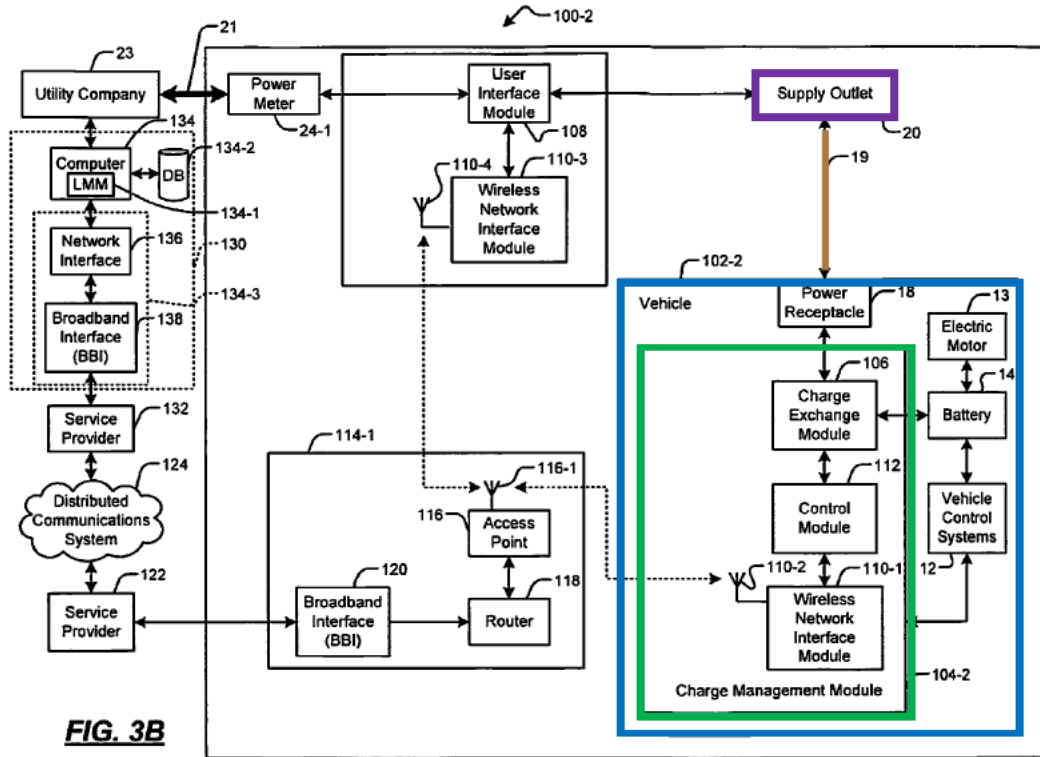
A. Ground 1

1. Claim 1[a]: [Pre] “the vehicle charger comprising: [a] an electrical power cord releasably attachable to at least one of the vehicle and a power source”³

Petitioner contends that this limitation is taught by Sutardja-Kelty-218-Pollack (Ground 1). Specifically, Petitioner contends:

Sutardja teaches a *vehicle charger (CMM 104-2) comprising an electrical power cord (a cable and connector 19) releasably attachable to at least one of the vehicle (vehicle 102) and a source of power (supply outlet 20)*. Sutardja depicts a “*cable and connector 19*” (“*electrical power cord*”) that connects the *electric vehicle 102* with a *supply outlet 20*:

³ Patent Owner uses the same claim element reference letters set forth in the Petition.



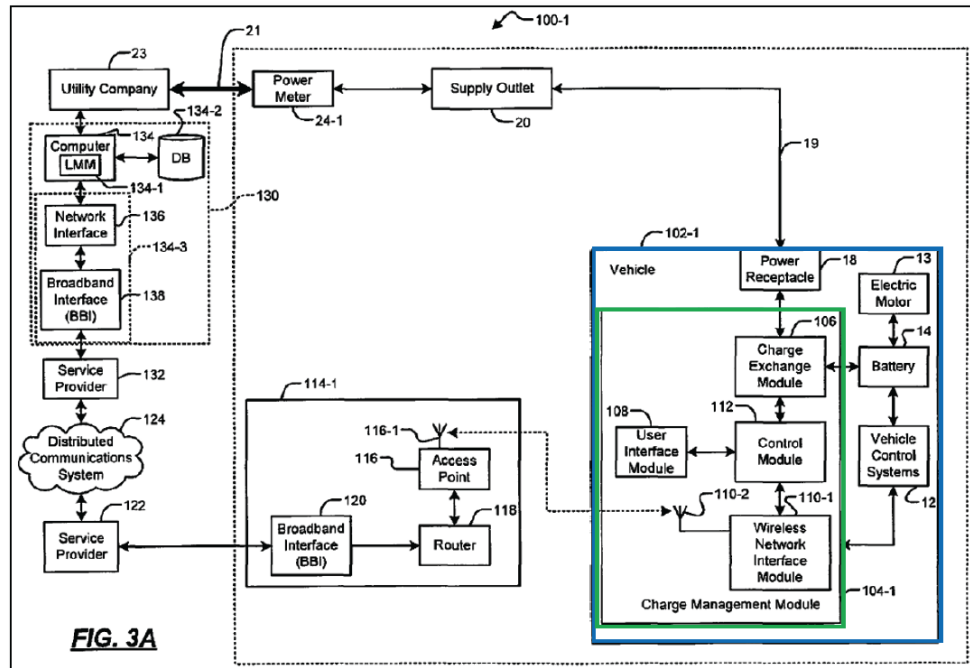
Pet., 17-18 (footnote omitted). Petitioner thus alleges that the claimed “vehicle charger” *is* the combination of **CMM 104-2** and **connector/cable 19**. This is consistent with Petitioner’s mapping in the co-pending IPR challenging the related ’107 Patent. *See Tesla, Inc. v. ChargeLogic LLC*, IPR2026-00378, Paper 1 at 7 (“Sutardja teaches a *battery charger (i.e., CMM 104-1 with connector/cable 19)* comprising an *electrical power cord (cable/connector 19)....*”) (footnote omitted).

Petitioner cannot carry its institution burden based on this implausible mapping. Ex. 2012 ¶ 53. Petitioner contends that the combination of CMM 104-1 and connector/cable 19 *is* the claimed “vehicle charger,” yet those components are completely separated by power receptacle 18—which *Petitioner does not contend* forms any part of the “vehicle charger.” Petitioner never explains how

connector/cable 19 and CMM 104-1 can be part of a single “vehicle charger” when separated by an intervening component that ***Petitioner contends is not*** part of that charger. *See Bd. of Regents of the Univ. of Tex. Sys. v. Bos. Sci. Corp.*, 184 F.4th 618, 631 (Fed. Cir. 2026) (“It is not reasonable to characterize that ***artificially separated*** section of the stent coating as a ‘thread-like’ structure.”). Petitioner’s expert also fails to explain this theory—he simply repeats the same mapping nearly *verbatim*. *Compare* Pet., 17-19 with Ex. 1003 ¶¶ 124-26; *Xerox*, IPR2022-00624, Paper 9 at 15 (expert declaration entitled to “little weight” where it simply restates the petition’s conclusory assertions). Just as it is generally improper for a petitioner to map separately recited claim elements onto a single unified structure, it is equally improper to divide the “battery charger” identification across a structural element (power receptacle 18) that ***Petitioner itself*** contends is not part of the “vehicle charger.” *See Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010) (“Where a claim lists elements separately, the clear implication of the claim language is that those elements are distinct components of the patented invention.”) (cleaned up); Ex. 2012 ¶ 54.⁴

⁴ The issue before the Board is not whether the combination of the CMM 104-1, receptacle 18 and connector/cable 19 can be considered a “vehicle charger,” but instead whether the CMM-104-1 and connector/cable 19 can be considered the claimed “vehicle charger” ***without the receptacle 18*** being part of the alleged

Moreover, in the co-pending IPR challenging the related '844 Patent, Petitioner only identifies **CMM 104-1** as the “battery charger”—not the cable/connector 19:



Tesla, Inc. v. ChargeLogic LLC, IPR2026-00380, Paper 1 at 5-6. Similarly, Petitioner refers only to “CMM 104-1” (not the connector/cable 19) as the “vehicle charger” when attempting to invalidate other claim limitations of the '567 Patent. *See, e.g.*, Pet., 38 (“Sutardja’s **third controller (modules 112/106)** further changes a charging state of the **vehicle charger (CMM 104-2)**....”). Petitioner avoids mentioning the connector/cable 19 as being part of the “vehicle charger” when not required for invalidity because that mapping is illogical as explained above.

charger as *specifically proposed by Petitioner*.

Because the claimed “battery charger” cannot encompass two components that are completely separated by a component that *Petitioner does not consider* to be part of the “battery charger,” Petitioner cannot carry its burden on Ground 1. Ex. 2012 ¶ 56.⁵

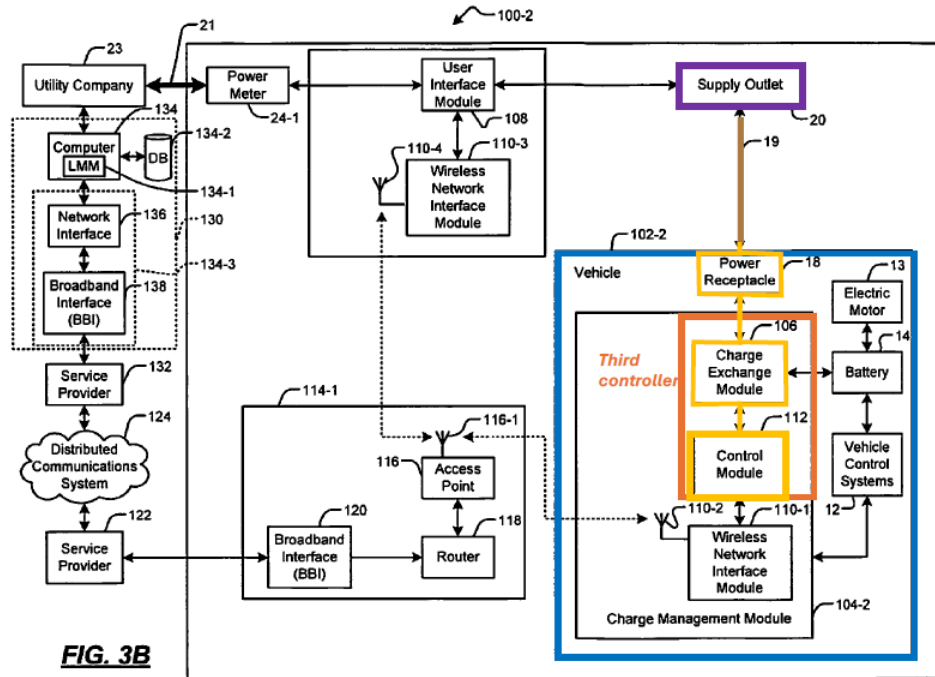
2. Claim 1[b]: “a third controller electrically coupled to the electrical power cord; at least one of a transmitter and a receiver coupled to the third controller and adapted for communication with the first controller and the second controller”

Petitioner fails to demonstrate that Sutardja-Kelty-218-Pollack (Ground 1) discloses or renders obvious: “a controller *electrically coupled* to the electrical power cord.” Petitioner contends:

Sutardja teaches *vehicle charger (CMM 104-2) comprising a third controller (modules 112/106) electrically coupled to the electrical power cord* (cable and connector 19).

⁵ Even if an alternative mapping could be devised on reply, it would come too late. *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1356 (2018) (the Board does not “enjoy[] a license to depart from the petition and institute a different inter partes review of his own design.”); *See also Koninklijke Philips N.V. v. Google LLC*, 948 F.3d 1330, 1336 (Fed. Cir. 2020) (concluding “the Board erred when it instituted inter partes review based on a combination of prior art references Google did not advance in its petition”).

Fig. 3B shows Sutardja's modules 112/106 (*“third controller”*) electrically coupled to the cable and connector 19 (*“electrical power cord”*) via intervening charging circuitry:



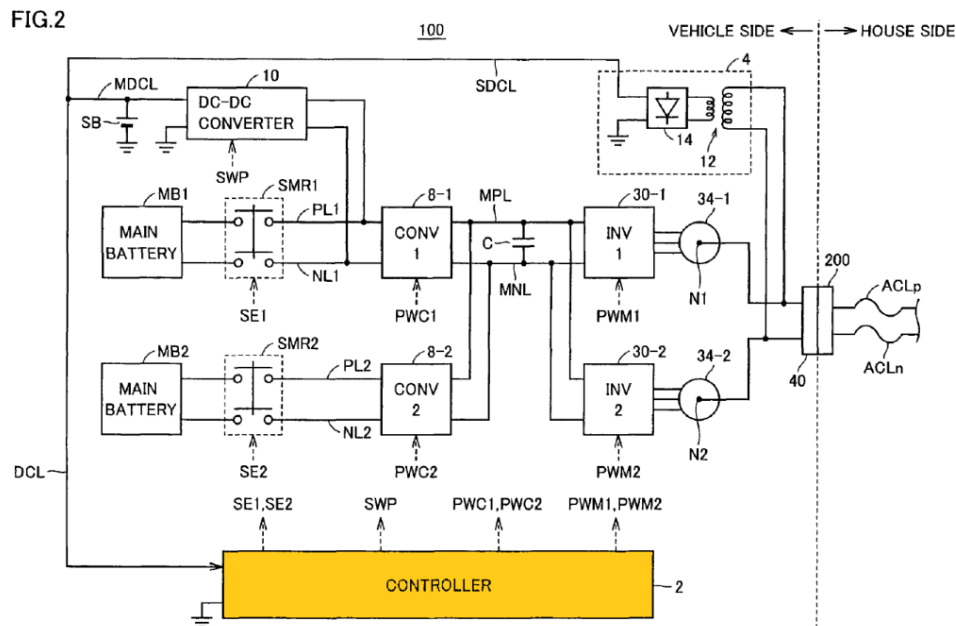
Pet., 19-20.

Despite Sutardja explicitly referring to element 112 as the *“control module,”* Petitioner maps the *“controller”* to both the *“control module”* 112 and *“charge exchange module”* 106. Tellingly, however, neither Petitioner nor its expert explains why the claimed *“controller”* expands beyond *“control module”* 112. They simply conclude that it does. Ex. 2012 ¶ 58.

Petitioner fails to carry its burden because it has not provided *“a detailed explanation of the significance of the evidence,”* including an explanation as to why the alleged *“controller”* of Sutardja expands beyond *“control module”* 112. See 37

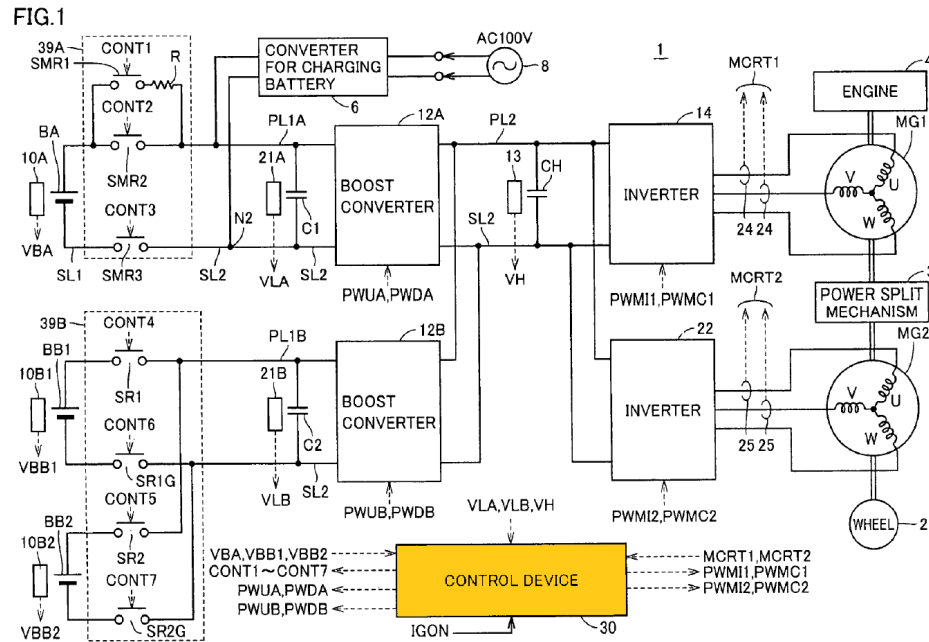
C.F.R. § 42.104(b)(5); *Shopkick, Inc. v. Novitaz, Inc.*, IPR2015-00277, IPR2015-00278, Paper 7 at 23 (PTAB May 29, 2015) (denying institution where the petitioner did not “adequately explain the significance of the evidence”). Indeed, Petitioner provides no claim construction or reasoned explanation for its mapping. *See First Solar, Inc. v. Rovshan Sade*, IPR2023-00881, Paper 13 at 20 (PTAB Nov. 16, 2023) (denying institution and explaining that “[w]ithout a claim construction or reasoned explanation, it is difficult to understand why a single pipe serving as a support post would be a ‘support frame’ as claimed.”).

The prior art demonstrates why this is problematic. Ex. 2012 ¶ 59. For example, U.S. Patent No. 8,618,771 (assigned to Toyota) depicts its “controller 2” (orange) as a single contiguous device:



Ex. 2017.

Similarly, U.S. Patent No. 8,004,109 (also assigned to Toyota) depicts its “control device” 30 (orange) as a single contiguous device:



Ex. 2021. In contrast, Petitioner identifies the alleged “controller” of Sutardja as encompassing *both* “control module 112” and “charge exchange module” 106 without any claim construction or explanation to support this mapping. A POSITA would typically understand the “control module” of an electronic device to be the “controller” of the device, absent additional information reflecting (i) that additional hardware/circuitry of the electronic device performs the function of a controller or (ii) that the meaning of “controller” in the particular context would encompass additional hardware/circuitry. Ex. 2012 ¶ 60.

Petitioner’s unexplained “controller” mapping is material, because the language of element 1[b] requires that the “controller” is “electrically coupled to the

electrical power cord.” However, control module 112 is *electrically isolated* from the power by charge exchange module 106, which is the component that electrically interacts with the cable and power supply. *Id.* ¶ 61. Thus, the control module 112 is neither directly nor indirectly “electrically” coupled to the cable/connector 19. *Id.*

Petitioner identifies *only* the “control module” 112 and “charge exchange module” 106 as the “controller” apparently because those are the components Petitioner believes it needs for invalidity. Because Petitioner fails to provide any explanation for its “controller” mapping or propose a claim construction to justify that mapping, Petitioner cannot carry its burden as to this claim element.

- 3. Claim 1[c]: “wherein the third controller is responsive to at least one signal from the first controller by automatically changing a charging state of the vehicle charger at a time associated with a cost of power to the battery reaching a threshold cost of power to the battery, the at least one signal related to a cost of electrical power, changing the charging state of the vehicle charger including automatically starting charging when the cost of electrical power is equal to or less than the threshold cost of power,”**

a) The Combination Was Not Obvious.

Petitioner argues that it would have been obvious to modify the alleged “third controller” (modules 112/106) of Sutardja based on Kelty-218 so that the “third controller” automatically starts charging based on a cost-of-power threshold. Specifically, Petitioner proposes:

the *third controller* (modules 112/106) (1) automatically starts charging (*chang[e] a charging state*) (2) in response to at least one signal from

the *first controller* (LMM of computer 134), the signal relating to a cost of power, and (3) *automatically starts charging when the cost of electrical power is equal to or less than the threshold cost of power, as taught by Kelty*[.]

Pet., 28-29. This obviousness theory is fundamentally flawed because it is *the LMM of computer 134*—not the alleged “third controller” (modules 112/106)—that makes and effectuates cost-based charging decisions in Sutardja. Ex. 2012 ¶ 65. Petitioner’s mapping places that function at the wrong component. *Id.* In Sutardja’s disclosed architecture, the cost-based decision-making function resides at the utility company level, within the LMM of computer 134. *Id.* Modules 112/106 are downstream executors that act on the LMM’s scheduling decisions—they do not independently evaluate cost, compare cost to a threshold, or decide whether cost justifies initiating a charge. *Id.*

Sutardja’s Figure 8A method—the very method Petitioner relies on (Pet. 25–27)—is written entirely from the LMM’s perspective and confirms that cost-based charging decisions are made by the LMM 134-1, not by modules 112/106. *Id.* ¶ 66. Specifically: (1) the LMM “analyze[s] the charging parameters and determine[s] the load on the distribution system” (step 206); (2) the LMM “determine[s] whether the user demands charge at normal priority” (step 207); (3) the LMM “transmit[s] alternate charging parameters including additional cost to the user” (step 216); (4) the LMM “wait[s] until time to supply power arrives” (step 220); and (5) the LMM

“suppl[ies] power to the battery 14 according to either the charging parameters received from the CMM 104 and/or the user or the alternate charging parameters” (step 222). Ex. 1004 ¶¶ [0275]–[0278], Fig. 8A. At no point in this method do modules 112/106 evaluate cost, compare cost to a threshold, or make any cost-based charging decision. The LMM 134-1—Petitioner’s own mapped “first controller”—is the sole entity that determines *whether* and *when* to supply power based on cost. Ex. 2012 ¶ 66.

Petitioner’s expert attempts to bridge this gap by arguing that modules 112/106 receive “alternate charging parameters” from the LMM that include cost information. Ex. 1003 ¶¶ 139-140. But receiving cost-related information as part of a scheduling decision already made by the LMM is not the same as being “responsive to at least one signal from the first controller by automatically changing a charging state . . . at a time associated with a cost of power . . . reaching a threshold cost of power.” The claim requires the *third* controller to make the “cost of power”-based charging decision—to compare cost to a threshold and automatically change the charging state when that threshold is reached. Modules 112/106 do not perform this function. They receive the LMM’s scheduling output and execute it; the cost evaluation that produced that schedule occurred entirely within the LMM. Ex. 2012 ¶ 67.

By contrast, in Sutardja's disclosed system, modules 112/106 perform only local execution functions. *Id.* ¶ 68. Under Sutardja's Figure 9A method, control module 112 “determine[s] whether the time to charge the battery 14 has arrived” (step 316), and, if so, “the charge exchange module 106 may receive the charge from the supply outlet 20 and may charge the battery 14” (step 320). Ex. 1004 ¶ [0282]. In Sutardja's disclosed system, modules 112/106 check the clock and activate the charging hardware—they do not evaluate cost of power, compare cost to a threshold, or decide whether cost justifies initiating a charge. Ex. 2012 ¶ 68. The cost-based decisions have already been made by the LMM 134-1 at the utility level before power ever reaches the supply outlet. *Id.*

Sutardja itself confirms this division of labor. Paragraph [0263] states: “***the utility company 23*** may control charging times, etc. of the batteries in multiple vehicles without loading the power distribution system.” Ex. 1004 ¶ [0263]. And paragraph [0262] states: “***The utility company 23 may charge the battery 14*** between 9 pm and 6 am without interacting with the user.” *Id.* ¶ [0262]. It is the utility company—acting through the LMM—that “control[s] charging times” and determines when to supply power. Modules 112/106 charge the battery when the utility makes power available at the scheduled time, but they do not independently decide *when* to charge based on cost. Ex. 2012 ¶ 69.

Petitioner acknowledges that Sutardja alone does not teach this limitation—that is why Petitioner proposes combining Sutardja with Kelty-218. But the proposed modification suffers from a fundamental problem: it targets the wrong component and thus creates a fundamental mapping problem for Petitioner. Ex. 2012 ¶ 70. Specifically, Claim 1[c] requires the “third controller” to be “responsive to at least one signal from the first controller by automatically changing a charging state of the vehicle charger at a time associated with a cost of power to the battery reaching a threshold cost of power.” But in Sutardja, the entity that evaluates cost and decides when to supply power based on cost is the LMM—the same entity Petitioner maps as the “first controller.” Petitioner needs the “first controller” to *send* a cost signal and the “third controller” to *respond* to it by changing the charging state. In Sutardja, however, the LMM both evaluates cost *and* effectuates the charging decision based on that evaluation. The alleged “third controller” (modules 112/106) executes the LMM’s scheduling decision—it charges the battery when the scheduled time arrives and power is available, but it does not “automatically chang[e] a charging state . . . at a time associated with a cost of power . . . reaching a threshold cost of power” in response to any signal. *Id.* ¶ 70.

Moreover, Petitioner’s proposed Kelty-218 modification does not cure this deficiency; it compounds it. *Id.* ¶ 71. Petitioner proposes modifying modules 112/106 to “(3) automatically start[] charging . . . when the cost of electrical power

is equal to or less than the threshold cost of power, as taught by Kelty.” Pet. 28–29. But Petitioner never explains why a POSITA would modify modules 112/106 to perform cost-responsive functions when Sutardja is specifically designed so that the LMM 134-1—not modules 112/106—performs *all* cost-based decisions. If anything, a POSITA would logically have added that functionality to the LMM—the component Sutardja designates for cost-based decision-making. Ex. 2012 ¶ 71. Indeed, Petitioner’s own mapping reveals this inconsistency: Kelty-218’s charging cost circuit 212 resides in a “computer in a home”—the same home computer Petitioner maps as the “second controller”—yet Petitioner proposes adding Kelty’s cost-threshold function to the alleged *third* controller (in-vehicle modules 112/106) rather than the alleged second controller or the first controller (LMM-134). Petitioner’s theory requires a POSITA to ignore Sutardja’s architecture—in which remote utility cost-based decision-making is *a feature*—and relocate that function from the utility-company LMM to the in-vehicle CMM, a fundamental redesign Petitioner fails to justify. *Id.*

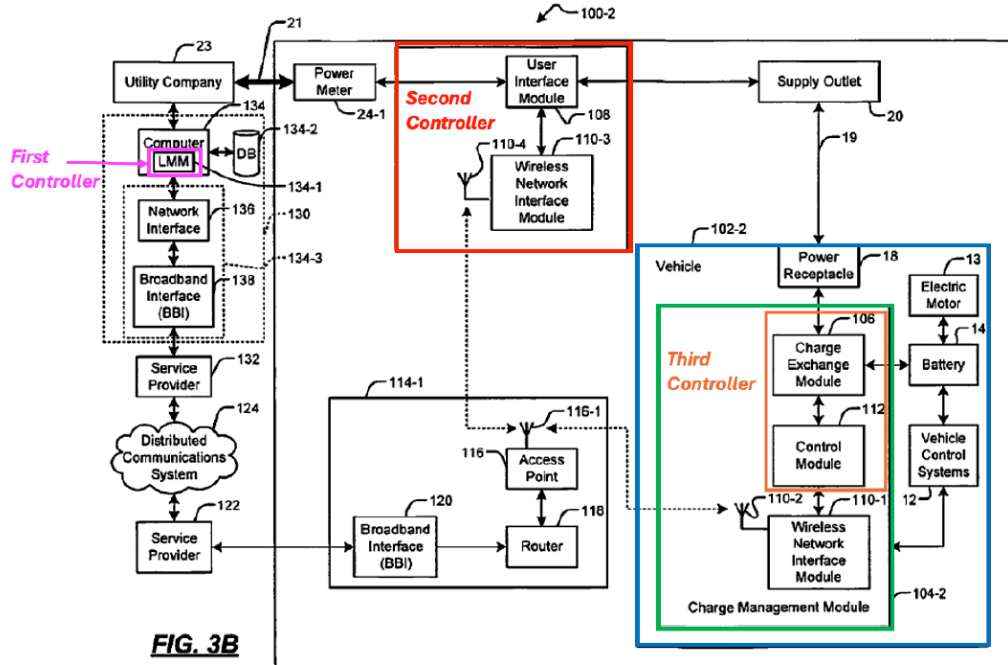
Modifying module 112/106 to perform cost-based decision making is thus not a product of a legitimate obviousness inquiry—it is a hindsight-driven modification that would require the Board to deviate from the specific architecture of Sutardja’s system without any explanation or justification. *Id.* ¶ 72. Indeed, to the extent it would have been obvious to implement Kelty-218’s purported cost-based threshold

charging into Sutardja, a POSITA would have implemented that functionality at the LMM 134-1 (alleged “first controller”) consistent with Sutardja’s architecture rather than violating that architecture by arbitrarily including that functionality at the alleged “third controller.” Ex. 2012 ¶ 72.

4. Claim 1[d][i]: “wherein the third controller is responsive to at least one signal from the second controller by changing a charging state of the vehicle charger to start charging,”

The preamble requires “a second controller remote from the vehicle and the vehicle charger,” and element 1[b] recites “the second controller.” Thus, the claimed “second controller” is required to be “*remote* from the vehicle and vehicle charger.” *See Catalina Mktg. Int’l v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (“In general, a preamble limits the invention if it recites essential structure or steps...” and “dependence on a particular disputed preamble phrase for antecedent basis may limit claim scope because it indicates a reliance on both the preamble and claim body to define the claimed invention.”). Indeed, Petitioner acknowledges that the second controller must be “remote” based on its invalidity analysis. Pet., 11-13.

Specifically, Petitioner proposes that it would have been obvious to implement the alleged “second controller” (**red** below) of Sutardja “on the processor of Kelty-218’s *home* computer” as shown in Petitioner’s annotated figure. *Id.* at 14.



In proposing this combination, Petitioner not only proposes implementing the alleged “second controller” on the “home computer” of Kelty-218, but also implicitly proposes relocating the “second controller” to a *different* location within the home than that shown in Figure 3B. Ex. 2012 ¶ 74. This relocation is necessary for Petitioner’s theory because, without it, the alleged “second controller” remains exactly where Sutardja already places it—and Petitioner does not contend that the alleged “second controller” as located in Figure 3B is “remote.” *Id.*

As explained below, there is no basis for combining Sutardja and Kelty-218 as proposed and, even if there were, the combination still would not possess all limitations of the claims. *Id.* ¶ 75.

a) The Combination Was Not Obvious.

Petitioner proposes that “it would have been obvious to implement Sutardja’s

UIM-WNIM on the processor of Kelty-218’s *home* computer.” Pet. 14. This obviousness theory is fundamentally flawed for at least two reasons.

First, Sutardja already teaches that the alleged “second controller” (**red**) is located in a “*home*” and performs the same functions in Figure 3B that Petitioner attributes to the proposed combination with Kelty-218. Ex. 1004 ¶ [0239] (“A vehicle 102-1 is charged at a location such *as a home*...”). In the Figure 3B embodiment, Sutardja discloses that “CMS 100-2 may include the user interface module 108 that is arranged outside a vehicle 102-2.” *Id.* ¶ [0247]. The user interface module 108 is itself a processor-based device—a *computer*. *Id.* ¶ [0228] (defining “module” as “electronic circuit, a processor (shared, dedicated, or group) and memory that execute one or more software or firmware programs”). This external user interface module 108 “may comprise a keypad, a display, a microphone, and/or a speaker” and allows “[a] user of the vehicle 102-1 . . . *to set charging parameters for charging the battery 14.*” *Id.* ¶ [0243]. Interface module 108 communicates wirelessly with the alleged vehicle charger (CMM 104-2) through wireless network interface module 110-3, “via the user LAN 114-1.” *Id.* ¶¶ [0247], [0243]. Thus, Sutardja’s UIM-WNIM 108 *already functions as a home computer located outside the vehicle* through which the user controls the charger wirelessly. Ex. 2012 ¶ 77.

Sutardja’s UIM-WNIM in Figure 3B is thus already a “home” computer dedicated to managing vehicle charging—precisely the role Petitioner assigns to

Kelty-218’s “home computer.” *Id.* ¶ 78. Because Sutardja already provides this functionality, a POSITA would have recognized there is no gap for Kelty-218 to fill. *Id.* The sole reason Petitioner proposes this combination is to manufacture a pretext for arguing that the “second controller” would be moved to a purportedly “remote” location.

Second, Kelty-218 itself does not teach that its computer is in *any particular* location within the home—it states only that its charging cost circuit 212 may be “part of a computer in a *home*” to distinguish it from “part of a computer *onboard a vehicle* (e.g., the vehicle management system 116 of FIG. 1).” Ex. 1005 ¶ [0026]. Kelty-218 thus uses “home” the same way as Sutardja—to refer to the home premises generally, as opposed to the vehicle. Ex. 2012 ¶ 79. This is critically important: because Kelty-218 does not identify *any* particular location within the home, it cannot teach or suggest placing the alleged “second controller” at a location *different* from Figure 3B. *Id.* A POSITA implementing Sutardja’s UIM-WNIM on Kelty-218’s “home computer” would simply substitute one home-based device for another at the same location shown in Figure 3B—because that location is also in a “home” per Sutardja. Ex. 1004 ¶ [0239]. The Petition identifies nothing in Kelty-218 that teaches or suggests a *particular* home location, and thus provides no basis to move the alleged “second controller” to a purportedly “remote” location. Ex. 2012 ¶ 79.

b) The Combination Does Not Possess All Elements.

As explained above, even if there were a motivation to combine, at most the combination would result in Sutardja's "home" UIM-108 being replaced by Kelty-218's "home computer"—meaning the alleged "second controller" remains in the exact same location as depicted in Figure 3B. Ex. 2012 ¶ 80. Petitioner does not contend that UIM-108—as located in Figure 3B—is "remote," and therefore the proposed combination does not possess all claim limitations. *Id.*

Even if there were a motivation to place UIM-108 on a "home computer" at a different location within the home based on Kelty-218, the combination would *still* not yield a "second controller" that is "remote from the vehicle and the vehicle charger" as the claims require. Ex. 2012 ¶ 81. A POSITA would understand that a "remote" device is one situated at different premises—not merely in a different room of the same premises. *Id.*

For one, the general purpose dictionary definition for "remote" is "located *far away*." Ex. 2024. Similarly, the Microsoft Computer Dictionary Definition for "remote PC" is "[t]he computer or network that a remote user is accessing *via a modem*" and for "remote terminal" is "[a] terminal that is located *at a site removed from the computer to which it is attached*. Remote terminals rely on *modems and telephone lines to communicate with the host computer*." Ex. 2025; Ex. 2026. A POSITA would similarly understand that a "remote" device is one that

communicates with a device that is situated off-premises, such as a computer located off premises that communicates using network infrastructure (e.g., public telephone or cellular network). Ex. 2012 ¶ 82.

The claim language itself confirms that “remote” imposes a meaningful spatial limitation. The preamble of Claim 1 requires “a second controller remote from the vehicle and the vehicle charger.” Independent Claims 8 and 15 similarly require “a computer remote from the vehicle and vehicle charger, the computer including a remote controller.” The repeated use of “remote”—as both an adjective modifying the controller and as a spatial qualifier in the prepositional phrase “remote from”—confirms that the term requires the controller to be situated at premises different from the place where the vehicle is parked and the charger is located—not merely in a different room at the same premises. *Id.* ¶ 83.

The specification consistently associates “remote” with off-premises entities—never with devices at the same home or premises. *Id.* ¶ 84. The ’567 Patent identifies only two categories of “other controller” with which the charger communicates: (1) “one or more processors of a server or other computer associated with a power utility providing power to the vehicle charging cord 22”; and (2) “one or more processors of a personal computer, phone, PDA, or other processor-based device associated with a user of the vehicle charging cord 22.” Ex. 1001, 9:1–12. The specification’s primary disclosed embodiment of a “remote” controller is “a

remote computer of a power utility 48,” which is “located anywhere between the location 16 of the user and the sources of power 12” and may be “at a facility where power is generated, at an office of the power utility 48, [or] at any of a number of substations.” *Id.* at 9:6–15, 9:47-50. Every disclosed location for the “remote” controller is off the user’s premises—at a power plant, utility office, or substation. Ex. 2012 ¶ 84.

The specification does describe communication between the charger and a “user’s computer” as an alternative. Ex. 1001, 10:31–53. But the specification’s description of this communication is revealing: the user’s computer communicates with the charger via “a residence-based, office-based, or other facility-based PLC [i.e., powerline communication] system . . . (via the electrical system of the residence, office, or other facility)” or via “wireless personal area network (WPAN) (using, for example, ZigBee®, Bluetooth®, or any other WPAN wireless technology), wireless local area network (WLAN), and the like.” *Id.* at 10:34–46. These are **local** communications—they use local-area protocols (WPAN, WLAN, PLC) that, by definition, operate within a confined geographic area. Ex. 2012 ¶ 85. The specification never refers to the user’s home computer as a “remote” controller. The only computer described as “remote” is that of the power utility 48—the specification draws a clear architectural line between the on-premises user’s computer (communicating over local protocols) and the off-premises utility

controller (communicating over power lines, substations, and repeaters spanning the distance to the power source). *Id.*

Further, the specification's alert-notification embodiments confirm this distinction. When an event occurs during charging (e.g., power loss or charge completion), the specification describes two distinct communication paths: (1) the charger sends a signal to “the power utility 48 (i.e., to the controller 50 of the power utility 48)”; and separately, (2) the charger sends an alert “to a computer, phone, PDA, or other device of the user” via the user's computer or by “automatically generating a text message or e-mail.” Ex. 1001, 22:30-43. In the '107 Patent (Ex. 2028), claims require sending a signal “to a portable controller remote from the vehicle and the vehicular battery charger,” and the specification identifies the exemplary portable controller as a “phone” or “PDA” that can receive text messages and e-mails while the user is away from the charging location. The consistent thread across the patent family is that a “remote” device is one the user carries or accesses *away from* the charging premises—not a desktop computer plugged into the same home's electrical system. Ex. 2012 ¶ 86.

The prosecution history further confirms that “remote” requires an off-premises device. During prosecution of the '567 Patent, the applicant amended the claims to add the “second controller remote from the vehicle and the vehicle charger” limitation and the “remote controller” limitation. Ex. 1002, 83–88. These

amendments were made to distinguish the claimed invention over prior art that taught only on-premises or co-located user interfaces. Specifically, the applicant argued:

The controller associated with the computer is remote from both a vehicle and the vehicle charger for that vehicle, but the controller wirelessly communicates with the controller of the vehicle charger. The computer could be, for example, a processor-based device *such as a phone or similar device that is remote from* the vehicle and the vehicle charger.

Id. at 90–91. The applicant then argued that the combination of Hobbs, Matsumura, Nor, Ferro, and other prior art “fails to disclose or suggest” the “remote” controller limitations, stating: “Hobbs does not contemplate or even mention wireless communication with a vehicle charger, let alone initiating a manual charge of a vehicle battery based on a signal received wirelessly from a *remote* computer (e.g., *a phone*, etc.).” *Id.* at 91. The applicant’s exemplary “remote” device—a phone—is a portable device the user carries away from the charging premises. It is not a stationary home computer on the same LAN as the charger or a device restricted to the same premises as the vehicle and charger. Ex. 2012 ¶ 87.

Petitioner’s combination places the alleged “second controller” on Kelty-218’s “home computer,” which is, by definition, a computer located in the user’s home—the same location where Sutardja’s vehicle is parked and charged. A home computer communicating with a vehicle charger plugged into an outlet in the same

home is not “remote from the vehicle and the vehicle charger”—it is *local* to them. *Id.* ¶ 88. The alleged second controller and the vehicle charger are connected over a *local* area network (“wireless LAN 114-1”) at the home. Ex. 1004 ¶ [0247]. Petitioner’s own declarant acknowledges that Sutardja’s UIM-WNIM communicates with the vehicle charger “via the user LAN 114-1.” Ex. 1003 ¶ 113. A device communicating over a LAN at the same residential location as the vehicle and charger is, by definition, a *local* controller—not a remote one. Ex. 2012 ¶ 88.

The Petition effectively concedes this point. In arguing for the motivation to combine, Petitioner emphasizes the benefits of controlling charging “without going outside” and “without leaving their home.” Pet., 13. These descriptions confirm that the user, the alleged second controller, the vehicle, and the charger are all at the same home location. A POSITA would understand that a controller operating over a home LAN to communicate with a charger plugged into the home’s supply outlet is *local* to the vehicle and charger, not remote from them. Because the claims require a second controller that is “*remote from* the vehicle and the vehicle charger,” the proposed Sutardja-Kelty combination fails to disclose this limitation. Ex. 2012 ¶ 89.

Finally, Petitioner’s own position that relocating UIM-108 to another location within the home makes it “remote” is flatly contradicted by its own expert’s testimony. Specifically, Mr. Andrews opines:

[I]t was well known that the user may wish to charge a vehicle away from home and sit in their vehicle during charging and would greatly benefit from a user interface inside the vehicle. Other times the user may be *at home* or in an office, and would want to be able to control the charging parameters *locally, for example on a computer*.

Ex. 1003 ¶ 189. This is an express admission by Petitioner’s own expert that controlling charging from a home computer constitutes *local* control. If implementing UIM-108 on Kelty-218’s “home computer” enables the user to control charging parameters “locally,” then the resulting device is—by Petitioner’s own characterization—a *local* controller. Ex. 2012 ¶ 90. A local controller is, by definition, not a “remote” one. *Id.*

In short, the proposed combination of Sutardja and Kelty-218 fails on multiple independent grounds. Sutardja already teaches an external *home* “computer” (UIM-108), eliminating any need for Kelty-218. Ex. 2012 ¶ 91. Neither reference motivates relocating the alleged second controller. *Id.* And even accepting the proposed modification, the result is only a locally situated second controller connected over a home *LAN*—not the “remote” second controller the claims require. *Id.* Petitioner has failed to carry its burden. *Id.*

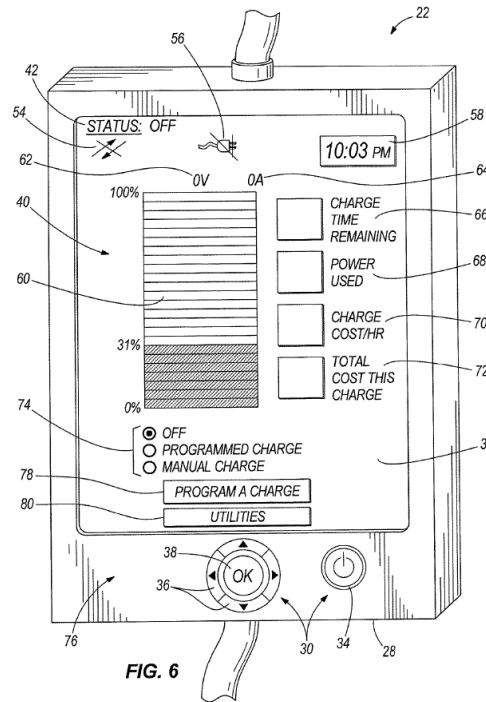
5. Claim 1[d][ii]: “the at least one signal from the second controller being received by the third controller in response to a user selecting a user-manipulable control on a screen associated with the second controller”

a) The Combination Does Not Possess All Elements.

Petitioner acknowledges that Sutardja does not disclose “a user-manipulable control *on a screen* associated with the second controller.” Pet., 33. Petitioner thus argues that a “POSITA would have been motivated and would have found it obvious to further modify Kelty’s computer implementing Sutardja’s UIM-WNIM according to Pollack’s teachings such that (1) UIM 108 presents *screen-based user-manipulable controls, including checkboxes, icons, menus, and manual charging overrides.*” *Id.* at 34. However, even if it would have been obvious to combine Pollack with Sutardja-Kelty-218 as proposed, the combination still would not possess “a user-manipulable control *on a screen*” as required by Claim 1[d][ii]. As explained below, the intrinsic record supports that “a user-manipulable control *on a screen*” requires the screen itself to have interactive input capability—such as a touch screen—through which the user can physically control. Ex. 2012 ¶ 92. A passive display that merely renders a graphical depiction of “checkboxes, icons, menus or manual charging overrides” does not satisfy this limitation. *Id.*

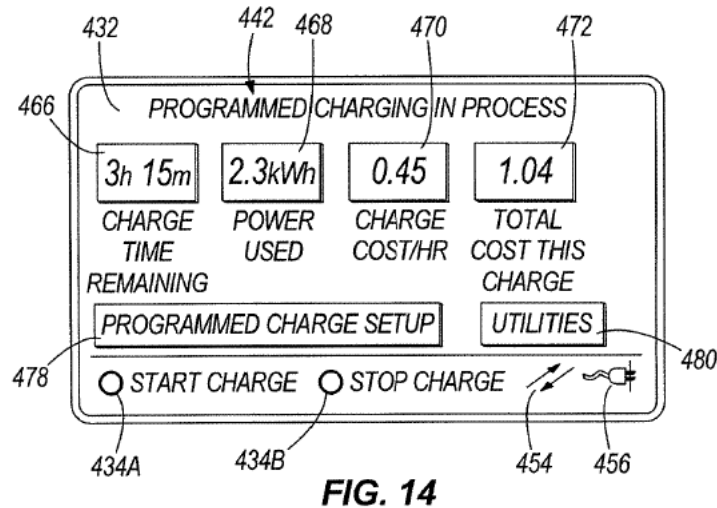
The specification discloses two distinct interface embodiments that confirm this. In the first embodiment (FIGs. 5–11, 15), “a display 32 *in conjunction with* a number of button-type user-manipulatable *controls* 34, 36, 40 is employed.” Ex.

1001, 8:6-10, 47–49.



The user-manipulatable **controls** 30—including a power button 34, navigation buttons 36, and a select button 38—are *physical buttons on the housing 28, separate from the display 32*. *Id.* at 8:14–19. The display 32 presents “navigation **buttons**” (78, 80, 82, 84) that are *visually displayed* but are selected by the user using the *physical controls* on the housing: “each screen 40, 40A, 40B is accessed by selecting a navigation button, **such as by using navigation button 36** in the illustrated embodiment to highlight a desired navigation button on the screen 40, 40A, 40B.” *Id.* at 14:17–25, 15:38–56. In this embodiment, the controls (e.g., 36) are *adjacent to* a screen but not *on* the screen—the user interacts with physical hardware to control, not the screen surface. Ex. 2012 ¶ 93.

In the second embodiment (FIGs. 13, 14, 16), the specification describes an “in-console display 432” that is expressly identified as “a touch screen display 432.” Ex. 1001, 26:33-36, 27:6-7.



The touch screen display “can include separate buttons 434A, 434B to start or stop a charging session.” *Id.* at 27:65-67. These control buttons are *on the screen*—they are interactive elements on the touch screen that the user can control by touching the screen surface. Ex. 2012 ¶ 94.

The specification draws a bright line between these two embodiments: “Although a display 32 in conjunction with a number of button-type user-manipulatable controls 34, 36, 40 is employed in the embodiment of FIGs. 2, 5-11 and 15, in other embodiments, **the display 32 and any number of the button-type user-manipulatable controls 34, 36, 40 can be replaced by a touch screen** (not shown). **The touch screen can enable a user to display options, navigate between**

two or more screens, and *select options by inputting commands directly into the display 32.*” *Id.* at 8:47–56. The specification thus explains that a touch screen *replaces* separate physical buttons by enabling the user to “select options by inputting commands **directly into** the display.” *Id.* A control that is “on a screen” is one that the user interacts with directly on the screen surface. Ex. 2012 ¶ 95.

The specification further confirms this when discussing what happens if the touch screen is *replaced* by a non-interactive display: “Although the in-console display 432 illustrated in FIG. 14 is a touch screen display 432, the display 432 can be any other type of display For example, the touch screen display 432 can be replaced by a display such as that shown in FIGs. 5-11 or FIG. 12, **in which cases the vehicle charging system can include navigation buttons (e.g., adjacent the display 432) enabling a user to navigate through a screen.**” Ex. 1001, 28:5-13. When the touch screen is replaced by a passive display, the controls move *off-screen*—they become “navigation buttons . . . **adjacent** the display.” *Id.* The specification thus distinguishes between a control that is “on a screen” (the touch screen embodiment) and a control that is “adjacent” to a screen (the passive-display embodiment). Ex. 2012 ¶ 96. In fact, the specification makes clear that it is the touchscreen that provides the “user-manipulable control” in the FIG. 14 embodiment when it states that the touchscreen can be replaced by “*other* user-manipulatable controls.” *Id.* (quoting Ex. 1001, 28:13-17).

Claim differentiation further confirms this distinction. Claim 1[d][ii] recites a “user-manipulable control **on a screen** associated with the second controller.” Independent Claims 8 and 15, by contrast, recite the “display” and “user-manipulatable control” as *separate elements*: Claim 8 recites “a display coupled to the controller” (8[b]) and separately “a user-manipulatable control **coupled to the controller**” (8[c]); Claim 15 recites “a display mounted within the vehicle” (15[a]) and separately “a user-manipulatable control **within reach of the user**” (15[b]). In Claims 8 and 15, the display and the control are claimed as distinct elements—not as a control “on a screen.” This is consistent with the FIGs. 5–11 embodiment, where physical buttons sit alongside a passive display. Ex. 2012 ¶ 97. Under claim differentiation, “on a screen” requires the control to be *part of an interactive screen*—i.e., a **control** that the user physically interacts with through the screen surface, such as a touch screen button. *See e.g.*, Ex. 2027, 1:24-34 (“A touchscreen is a device for inputting a **user’s command** by selecting an instruction shown on a screen of a display or the like with the hand of the user or an object.”). Indeed, the claim refers to a user-manipulatable control “on a **screen**” (e.g., touchscreen). Ex. 2012 ¶ 97.

Petitioner’s own prior art confirms the distinction. Petitioner relies on Pollack (Ex. 1006) to supply this limitation. Pollack teaches a user interface that “displays checkboxes, icons, and/or menus for user-selection of preferences, constraints,

customizations, and optimizations.” Ex. 1006, claim 12. But Pollack’s disclosure of *displayed* checkboxes and icons does not establish that these are controls “on a screen” as required by the claims. A displayed checkbox is a graphical element rendered on a display—the user may interact with it through a separate input device rather than through the screen itself. Ex. 2012 ¶ 98. Tesla’s own expert concedes that Sutardja “does not depict specific examples of displayed controls” and argues that Pollack would “supply a known *graphical implementation* for functionality that Sutardja’s system was already configured to receive and process.” Ex. 1003 ¶ 166. But graphical elements on a passive display are not *controls* “on a screen”—the user cannot control anything by touching those graphical elements; the user selects them through separate physical hardware such as the “user-manipulatable controls” 30 of Figure 5. Thus, the “controls” in such an embodiment are the physical buttons, not the displayed graphical elements. Ex. 2012 ¶ 98.

Tellingly, Mr. Andrews specifically discusses “well-known touch screen technology” when attempting to justify combining Pollack with Sutardja. Ex. 1003 ¶ 166. But none of this discussion appears in the Petition, and the exhibits Mr. Andrews cites (e.g., Exhibits 1043 and 1044) are not cited or discussed in the Petition—constituting improper incorporation by reference.

More importantly, *Petitioner does not even allege that Pollack teaches touchscreen technology*, and Mr. Andrews confirms that Petitioner proposes only

modifying Sutardja to include “*Pollack’s checkboxes, icons, menus, and overrides.*” *Id.*; Ex. 2012 ¶ 99. Even if Petitioner *could have* alleged modifying Sutardja to incorporate a touch screen, that is not what the Petition proposes. *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1356 (2018) (explaining that the Board does not “enjoy[] a license to depart from the petition and institute a different inter partes review of his own design.”); *See also Koninklijke Philips N.V. v. Google LLC*, 948 F.3d 1330, 1336 (Fed. Cir. 2020) (concluding that “the Board erred when it instituted *inter partes* review based on a combination of prior art references Google did not advance in its petition”). Indeed, Petitioner proposes only that Pollack teaches user-manipulatable controls in the form of “checkboxes, icons, menus, and manual charging overrides.” Pet., 34. Nor is any of Petitioner’s proposed “MTC” on this limitation directed toward touchscreen technology. *Id.* at 34-37.

For these reasons, the proposed combination of Sutardja, Kelty-218, and Pollack fails to teach or render obvious “a user-manipulable control *on a screen* associated with the second controller” as required by Claim 1[d][ii]. The claim requires a user-manipulable control *on a screen*. A passive display that merely shows a graphical representation of a button, with user control occurring through separate physical hardware (e.g., button, mouse, keyboard), does not satisfy this limitation. Ex. 2012 ¶ 100.

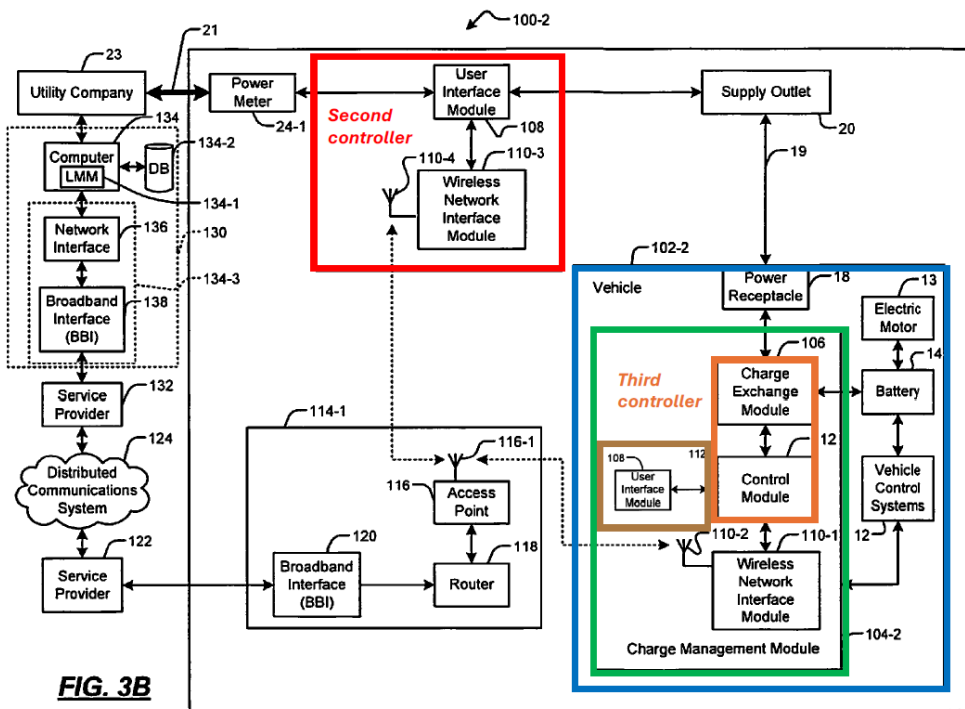
6. Claim 3: “The vehicle charger of claim 1, further comprising a display coupled to the third controller, the display displaying a level of charge of the battery.”

Petitioner fails to demonstrate that this limitation is obvious for the same reasons discussed with respect to Claim 15[a]. *Infra* Section IV.B.1. Ex. 2012 ¶ 102.

B. Ground 2

1. Claim 15[a]-[b]: “[a] a display mounted within the vehicle within reach of a user seated within the vehicle; [b] a user-manipulatable control within reach of the user seated within the vehicle and by which a user can enter a time of day; and”

Petitioner proposes combining Figures 3A and 3B of Sutardja to create a hypothetical embodiment (shown below), so that Petitioner can justify further modifying Sutardja based on the in-vehicle “display” of Pollack:



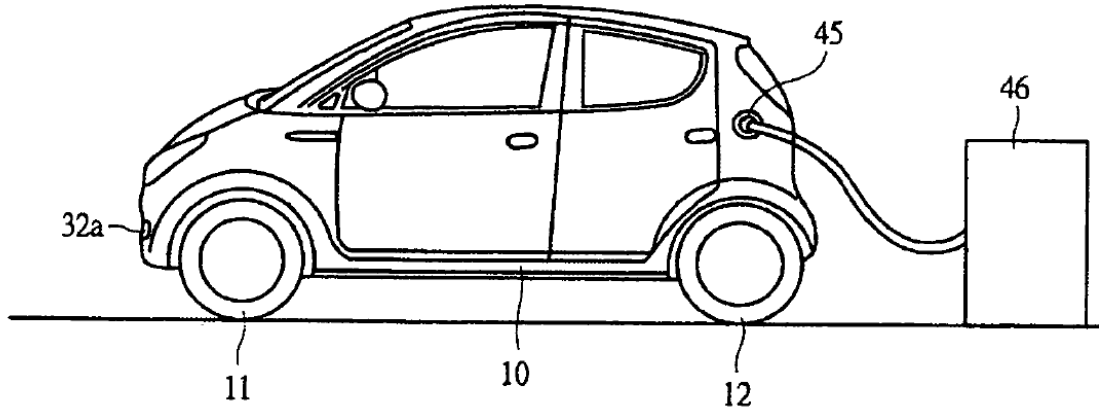
Pet., 44-48. Specifically, Petitioner contends that a “POSITA would have recognized

the UIM 108 of Fig. 3A (providing a local display/input interface coupled to the charger) and the user interface outside of the vehicle configuration of Fig. 3B are complementary, and combining them *would allow both local and remote interaction* with the same charging system.... Such a combination would have been consistent with well-known EV charging system design practices prior to the priority date of the '567 Patent.” *Id.* at 45. This is a contrived, hindsight-driven motivation lacking any rational underpinning. It is proposed solely to create an excuse to further modify Sutardja based on Pollack to reach the claimed invention.

Sutardja is directed to a *home or work* battery charging system. *See* Ex. 1004 ¶ [0229], [0239]. Sutardja teaches that the user interface module 108 may be in the vehicle (FIG. 3A) or, *alternatively*, outside the vehicle (FIG. 3B), for the straightforward reason that there is no purpose in having an identical user interface module 108 in two locations *within feet of one another*. Ex. 2012 ¶ 105 (citing Ex. 1004 ¶¶ [0234] (“The user interface modules may be arranged inside vehicles as shown in FIGS. 3A, 4A, and 5A or outside vehicles as shown in FIGS. 3B, 4B, and 5B.”), [0241], [0247])). A POSITA would understand that at the time of the invention, and to this day, vehicles park *adjacent* to the charger power supply because charging cables and their vehicle connectors are thick, would present a tripping hazard, and would risk being damaged if extended any meaningful distance. *Id.* Figure 4(B) of U.S. Patent No. 8,427,103 exemplifies this—it shows a vehicle

charger 46 within feet of the vehicle 10 being charged via a thick cable:

(B)



Ex. 2013; *see also* Ex. 2014, Fig. 2 (showing thick cable 70 connecting charging station 62 to electric vehicle 12). Indeed, Petitioner's own website shows that the power supply resides adjacent to the vehicle being charged and that the wall-charger does *not* have a user interface for inputting charge levels:





Ex. 2015.

A POSITA would understand that this is why Sutardja presents FIGS. 3A and 3B as alternatives—it does not teach or suggest a system having the user interface module 108 in both places (i.e., feet apart). Ex. 2012 ¶ 107 (citing Ex. 1004 ¶¶ [0234], [0241], [0247]). A POSITA would find it illogical to include the user interface module 108 both in the vehicle and feet away from the vehicle at the source of power. *Id.*

Petitioner’s own admissions undermine the combination. Petitioner admits that “*other than the placement* of the user interface and WNIM, the embodiments in Fig. 3A and 3B are ‘substantially similar’” and “[*b*]oth embodiments perform the same underlying functions, including receiving user-defined charging parameters,

communicating with external systems (e.g., utility providers and remote computing devices), and controlling charging of the vehicle battery based on those parameters.” Pet., 44-45. Because both embodiments “perform the same underlying functions” and differ only in the “placement” of the user interfaces either in the vehicle or *within feet* of the vehicle, there is no legitimate reason to combine them. Ex. 2012 ¶ 108. A POSITA would find no shortcoming the combined embodiment solves. *Id.*

Recognizing this, Petitioner mischaracterizes the hypothetical embodiment as “allow[ing] both local and *remote* interaction with the same charging system.” Pet., 45. Yet both interfaces in the hypothetical embodiment are local—just as a “*local* area network” is local. Ex. 2012 ¶ 109. Sutardja explicitly teaches that the user interface module 108 of Figure 3B is “outside a vehicle 102-2” and depicts it adjacent to both the supply outlet 20 and the vehicle 102-2. Ex. 1004 ¶ [0247]. It is thus incorrect to characterize the external interface 108 in the hypothetical embodiment as “remote”—it sits feet away from the vehicle and from the internal interface 108, and is therefore local. Ex. 2012 ¶ 109. Indeed, having *only* the internal interface 108 or *only* the external interface 108 allows “local control by the user” and remote coordination with the utility—having *both* does not “improve system flexibility” at all. *Id.*

Moreover, Petitioner later contradicts its own “remote” characterization when it argues that having both the internal and external interface 108 “would improve

system flexibility by enabling both *local control by the user* and remote coordination with utility systems....” Pet., 46; *see also* Ex. 1003 ¶ 189 (alleging that having the UIM inside and outside the vehicle would allow the user to “control the charging parameters *locally*”).

Petitioner also relies on Mr. Andrews for the proposition that the combination “would have been consistent with well-known EV charging system design practices prior to the priority date of the ’567 Patent.” Ex. 1003 ¶ 189 (cited by Pet., 45). The only evidence cited by Mr. Andrews is Ex. 1024 and Ex. 1042, *neither of which is cited, discussed, or even alluded to anywhere in the Petition*, making it improper to consider. But even if considered, Mr. Andrews acknowledges that Ex. 1024 teaches a user using a “home *PC*” wirelessly connected to an in-vehicle “user interface.” *Id.* Sutardja does not teach a PC (i.e., personal computer) but instead a user-interface located feet from the vehicle in-line with the power meter. Ex. 2012 ¶ 111. Even if a reason existed to have an additional UIM on a “home PC,” no legitimate evidence has been presented that the same reason exists in Sutardja, where the external UIM is located “outside” the vehicle. With respect to Ex. 1042, Mr. Andrews contends that it “confirms that EVs were expected to be charged *away from home at publicly accessible charging stations*.” *Id.* However, Sutardja is directed toward a *home or work* charger—where the EV is charged *at home* or *at work* where the user would remain on-premises. Ex. 2012 ¶ 111.

Mr. Andrews further argues that “it was well known that the user may wish to charge a vehicle away from home and sit in their vehicle during charging and would greatly benefit from a user interface inside the vehicle.” Ex. 1003 ¶ 189. Mr. Andrews provides no evidence for the illogical assertion that people would “sit in their vehicle” while charging *at home or at work* (i.e., the context of Sutardja)—an individual would simply wait inside while the vehicle charges. Ex. 2012 ¶ 112. Moreover, his testimony that such people would “greatly” benefit from an in-vehicle interface 108 when one is located *literally feet away* outside the vehicle is unexplained. And even if the vehicle interface would “greatly benefit” the user, then there is obviously no need for the external interface 108. *Id.* ¶ 112. Petitioner cannot have it both ways.

Petitioner next argues that having two user interface modules 108 adjacent to one another “would improve system flexibility by enabling both local control by the user and remote coordination with utility systems, which were known to manage charging based on load and cost considerations.” Pet., 45. That is a non sequitur, because “local control by the user” and “remote coordination with utility systems” is accomplished by *a single* user interface module 108—whether located in the vehicle or outside it. Ex. 2012 ¶ 113. Neither Petitioner nor Mr. Andrews explains how having two interfaces 108 within feet of one another would actually improve system flexibility.

Petitioner also argues that the combined embodiment “would facilitate more efficient implementation of user-defined charging preferences—such as scheduling and cost-based charging—which were known to depend on both user input and communication with external systems.” Pet., 46. But just as with the reason immediately above, Petitioner does not actually explain how having two user interfaces 108 as shown in combined Figure 3 would “facilitate more efficient implementation.”

In short, nothing supports that it would have been obvious to implement the user interface 108 of Sutardja’s home/work charger both inside and within feet outside the vehicle. Ex. 2012 ¶ 115. Indeed, Petitioner’s own commercial EV charger does *not* have an interface on the wall-mounted charger—because it is wholly unnecessary given that the vehicle itself provides the interface. *See* Ex. 2015, 2, 4. This rationale is premised entirely on hindsight and Petitioner’s desire to justify relying on Pollack. Moreover, because there would be no identifiable benefit to having the user interface 108 both inside and outside the vehicle, the increased cost and complexity would have discouraged a POSITA from doing so. Ex. 2012 ¶ 115.

2. Claim 15[d]: “wherein the controller supplies electric power to the battery if a level of battery charge is below a threshold level of battery charge independent of the time of day entered by the user, the controller supplying electric power to the battery at least until the threshold level of battery charge is reached,”

As an initial matter, Petitioner proposes plain and ordinary meaning for

“threshold level of battery charge” despite taking the position that plain and ordinary meaning should not apply for the indistinguishable phrase “threshold level of charge” in the ’107 and ’844 IPRs. The ’567, ’107 and ’844 Patents share a common specification, making this inconsistency even more inexplicable. This unexplained inconsistency is reason enough to deny the Petition as a whole. *Supra* Section III. Moreover, in the ’107 and ’844 IPRs Petitioner proposed that term be expressly construed to mean “a level of charge that is less than the charge level at which charging stops.” *Id.* However, Petitioner makes no attempt to show how the prior art satisfies this limitation under that express construction in this proceeding, further warranting denial.

Even setting those issues aside, Petitioner fails to demonstrate that the prior art teaches this claim limitation. Claim 15[d] requires the controller to supply electric power to the battery if the battery charge level is below a threshold “***independent of the time of day entered by the user.***” This limitation has two prerequisites: (1) the user must have entered a time of day for charging, and (2) the controller must override that user-entered time by supplying power based solely on battery charge level, regardless of whether the user’s entered time has arrived. Ex. 2012 ¶ 117. Petitioner argues that a “POSITA would have been motivated and would have found it obvious to modify Sutardja’s *controller (modules 112/106)* to supply power to the battery if a level of battery charge is below a threshold level of charge ***independent***

of time and until the threshold battery charge level is reached, as taught by Kelty.”

Pet., 60. However, none of the cited references—individually or in combination—teaches a system where the controller overrides the user-entered time by supplying power. Ex. 2012 ¶ 117.

Sutardja allegedly teaches supplying electric power to a battery “based on charging parameters (e.g., daily charging times),” and Kelty-218 purportedly teaches “selectively charging a battery based on charging-cost conditions and target battery charge levels.” Pet., 59-60. Petitioner represents that Kelty-218 teaches the “independent of time of day” requirement (*Id.* at 59), but Kelty-218 does not and cannot teach this feature.

A system cannot make a charging decision “independent of the time of day entered by the user” if the user never enters a time of day in the first place. Ex. 2012 ¶ 119. And Kelty-218 does not teach or disclose a user entering a time of day. Indeed, Petitioner does not contend that Kelty-218 does so, alleging:

Kelty teaches selectively charging a battery based on charging-cost conditions and target battery charge levels. EX1005-Kelty, Abstract, [0014]. Kelty’s “*charging circuit 208 is turned on until the battery reaches a first energy stored level*” (e.g., 80% of full stored energy to improve calendar life) during a first time period when charging costs are below a threshold, and optionally charging the battery to a higher “second energy stored level” (e.g., 90% or full stored energy) during a second time period when the charging costs may be higher.

Pet. at 59-60. Nothing identified by Petitioner teaches that a user in Kelty-218 enters a time of day such that Kelty-218 could make any decisions “independent of” that user-provided setting. For Kelty-218 to teach the “independent of” requirement, the user in Kelty-218 must have already provided a “time of day” as required by the claim. Ex. 2012 ¶ 119.

While Sutardja allegedly teaches a user entering a time of day (Pet., 57-58), Petitioner admits that Sutardja does not teach the “independent of” requirement. Thus, Sutardja **independently** teaches simply following its charging schedule and Kelty-218 **independently** teaches following its charging schedule—neither reference teaches or suggests charging independent of a user-provided time of day input. Ex. 2012 ¶ 120. Thus, even when combining Kelty-218 with Sutardja, that combination of art does not supply this missing claim requirement. *Id.*

Petitioner’s motivation to combine—that “a POSITA would have been motivated to modify Sutardja so that the vehicle maintained a minimum charge level regardless of the time of day or associated cost, ensuring that the vehicle remained usable for routine needs” (Pet., 60)—does not bridge this gap. In Sutardja, the user requests “a full charge daily between 9 pm and 6 am.” Ex. 1004 ¶ [0262]. If the user wants the vehicle charged for morning use, Sutardja’s system already achieves that result through the user’s own charging parameters—the user specifies a full charge by 6 am, and the utility delivers it. There is no need to “override” the user’s time

entry because the parameters already ensure a full charge by the specified time. Ex. 2012 ¶ 121. Petitioner does not explain why a POSITA would add an override mechanism to a system where the user already specifies the desired charge level and completion time. If anything, Sutardja effectively teaches away from the claimed override; the form of time entry (specifying a charge-completion time) sets up a system needing no override capability. *Id.* The claimed feature would not address a problem a POSITA would feel the need to fix. *Id.*

Moreover, even setting aside the absence of a user-entered time, Kelty-218's charging decisions are themselves time-dependent—not time-**independent**. *Id.* ¶ 122. Kelty-218 teaches charging to a first energy stored level “during a first time period” and charging to a second energy stored level “during a second time period.” Ex. 1005 ¶ [0040]. Kelty-218 expressly states: “In various examples, the ***first time period is coincident with*** ... a first charging cost rate is within in [*sic*] a first cost range.” *Id.* Kelty-218 further teaches that the “second time period” may be “user selected” and “coincident with ***a period of time in which*** a charging cost rate fits into a second cost range.” *Id.* ¶ [0041]. Thus, Kelty-218 does not teach charging “independent of” time—it teaches charging to particular energy levels *during particular time periods that are themselves determined by cost*. Ex. 2012 ¶ 122. Thus, the combination of Sutardja and Kelty-218 would produce a system that charges to a first level during one time period and to a second level during another

time period—both time-dependent—not a system that charges independently of the time of day entered by the user. *Id.*

Apparently recognizing this, Petitioner attempts to conjure this limitation out of thin air, arguing that:

A POSITA would have been motivated to modify Sutardja so that the vehicle maintained a minimum charge level ***regardless of the time of day or associated cost***, ensuring that the vehicle remained usable for routine needs, such as driving to work, as well as unexpected or emergency trips. EX1003-Dec., ¶225. Because those needs may arise outside a user-entered charging schedule, the modification would improve reliability and usability of the vehicle.

Pet., 60. This short, single-passage is the entire basis for Petitioner contending that the “independent of” limitation is taught by Sutardja-Kelty-218. Importantly, however, Petitioner fails to identify any portion of Sutardja or Kelty-218 that teaches or suggests this limitation, instead relying entirely on Mr. Andrews’ testimony. Ex. 2012 ¶ 123. Indeed, Petitioner does not cite *any* prior art or other evidence showing that this limitation was known or obvious at the time of the invention.

Moreover, “applicant admitted prior art (AAPA), expert testimony, common sense, and other evidence that is not ‘prior art consisting of patents or printed publications’ (collectively, ‘general knowledge’) may ***not*** be used to supply a missing claim limitation.” *See* July 31, 2025, USPTO memorandum titled “Enforcement and Non-Waiver of 37 C.F.R. § 42.104(b)(4) and Permissible Uses of

General Knowledge in Inter Partes Reviews,” *available at* https://www.uspto.gov/sites/default/files/documents/aapa_memo_final__signed.pdf (last accessed Sept. 11, 2026). Because no cited prior art reference teaches a system in which a controller supplies power to the battery based on charge level *independent of a user-entered time of day* and because Petitioner is not permitted to supply this missing limitation through expert testimony or common-sense/general knowledge assertions, Petitioner cannot carry its burden with respect to this claim element.

3. Claim 15[e]: “wherein the controller automatically starts battery charging when a cost of electrical power to the battery is equal to or less than a threshold cost of power to the battery, and”

Petitioner refers back to Claim 1[c] for this limitation. Petitioner fails to carry its burden on this claim for the same reasons discussed with respect to Claim 1[c]. *Supra* Section IV.A.3; Ex. 2012 ¶ 124.

4. Claim 15[f]: “wherein the controller is responsive to at least one signal from the remote controller by changing the supply of electric power to the vehicle battery to start charging, the at least one signal from the remote controller being received by the controller in response to a user selecting a second user-manipulable control on a screen associated with the remote controller.”

a) The Combination Was Not Obvious.

Claim 15[pre] recites a “vehicle charger adapted for wireless communication with a computer remote from the vehicle and vehicle charger, the computer including a remote controller, the vehicle charger comprising” and Claim 15[f]

recites “**the remote controller.**” Petitioner maps the “remote controller” to “**Kelty’s computer implementing Sutardja’s UIM-WNIM,**” which is the same structure that Petitioner mapped to the “remote” second controller of Claim 1[pre] and Claim 1[d][i]. For the same reasons discussed with respect to those limitations, Petitioner fails to demonstrate that it would have been obvious to implement Sutardja’s UIM-WNIM on Kelty-218’s “home computer.” *Supra* Section IV.A.4.a; Ex. 2012 ¶ 126.

b) The Combination Does Not Possess All Elements.

i. “remote controller”

Even if it had been obvious to implement Sutardja’s UIM-WNIM on Kelty-218’s “home computer” and to move that computer into a different location on the home premises, it would still not result in the claimed “***remote*** controller.” *Supra* Section IV.A.4.b; Ex. 2012 ¶ 127.

ii. “user-manipulatable control on a screen”

Petitioner relies on Pollack for the “user-manipulatable control on a screen,” just as it did with respect to this limitation in Claim 1[d][ii]. However, even if Pollack is combined with Sutardja-Kelty-218 as proposed, the combination fails to disclose this limitation. *Supra* Section IV.A.5; Ex. 2012 ¶ 128.

C. Ground 3

1. Claim 8[b]: “a display coupled to the controller and adapted to display a time; and”

Petitioner fails to demonstrate this limitation is obvious for the same reasons

discussed with respect to Claim 15[a]. *Supra* Section IV.B.1; Ex. 2012 ¶ 130.

2. **Claim 8[d]: “wherein the controller automatically changes the supply of electric power to the vehicle battery during the course of the charging session by at least one of a group consisting of increasing a rate of charge of the battery, decreasing the rate of charge of the battery, starting battery charging, and stopping battery charging based at least in part upon the time needed to charge the vehicle battery by the time of day entered by the user,”**

Claim 8[d] requires the controller to automatically change the supply of electric power “based at least in part upon *the time needed to charge the vehicle battery by the time of day entered by the user.*” This is a computation-dependent limitation: the controller must (1) calculate or consider the time required to charge the battery, and (2) use that calculation at least in part in conjunction with the user-entered completion time to determine when to start or stop charging. Ex. 2012 ¶ 131. Petitioner’s proposed combination of Sutardja and Gale fails to demonstrate that this limitation would have been obvious for at least four reasons.

First, Sutardja’s modules 112/106 do not calculate the “time needed to charge” the vehicle battery. Claim 8[d] requires the “controller” to change the supply of electric power based on “the time needed to charge the vehicle battery by the time of day entered by the user.” Petitioner maps the “controller” of Claim 8 to Sutardja’s modules 112/106. Pet., 63–64. But in Sutardja, modules 112/106 do not calculate the time required to charge the battery. Instead, modules 112/106 perform only local execution: control module 112 “determine[s] whether the time to charge the battery

14 has arrived” (step 316 of Fig. 9A) and, if so, the charge exchange module 106 “receive[s] the charge from the supply outlet 20 and may charge the battery 14” (step 320). Ex. 1004 ¶ [0282]. The scheduling computation—determining *when* to supply power based on the user’s requested time, the load on the distribution system, and the time required to complete charging—is performed by the LMM 134-1 at the utility company. *Id.* ¶ [0253] (“The LMM 134-1 may analyze the load on the distribution system based on the requested charging parameters from multiple customers. The LMM 134-1 may determine a schedule for charging batteries in multiple vehicles.”); [0275]–[0278], Fig. 8A (steps 206–222). This is the same “wrong component” problem identified with respect to Claim 1[c]. *Supra* Section IV.A.3. The claim requires *the controller*—alleged modules 112/106—to use the time-needed-to-charge calculation in managing the charging session. But in Sutardja, modules 112/106 do not possess or use this information; the LMM does. Ex. 2012 ¶ 132.

Second, Gale itself teaches the charge-time calculation at the utility level—not the vehicle-charger level—which is inconsistent with Petitioner’s mapping. *Id.* ¶ 133. Petitioner relies on Gale for the proposition that a controller determines “the length of the period required to fully recharge the battery 28 from its current state of charge” and uses that to “compute time to start charging.” Pet., 67 (citing Ex. 1008 ¶¶ [0041]–[0042], Fig. 12). But Gale’s controller 30 does not use this information in

isolation. Gale expressly teaches that controller 30 “initiates communications transmitted through the charger 24 to the electric utility 10 and responds to communications from the utility” and that the system “transmit[s] to the electric power utility the length of time required to recharge the battery and the desired time” so that the battery is recharged “during a period when projected load demand is lower than peak demand.” Ex. 1008, Abstract, ¶¶ [0008], [0027]. In other words, Gale’s charge-time calculation is transmitted *to the utility* for scheduling purposes—exactly the same architecture as Sutardja’s LMM-based scheduling. Ex. 2012 ¶ 133.

This is problematic for Petitioner’s theory. Petitioner needs Gale’s charge-time computation incorporated into vehicle modules 112/106—the alleged “controller”—so they can change the supply of electric power “based at least in part upon the time needed to charge.” *Id.* ¶ 134. But Gale teaches transmitting charge-time information to the *utility*, which schedules charging based on projected load demand. Ex. 1008, Abstract. If anything, a POSITA incorporating Gale’s teaching into Sutardja would logically have incorporated the charge-time information from the CMM to the LMM—consistent with both references’ architectures—not relocated the scheduling function into modules 112/106. Ex. 2012 ¶ 134. Gale’s system works harmoniously with Sutardja’s, both relying on the utility for calculations because it has access to more information, such as power costs and grid state. *Id.* Petitioner’s theory requires disregarding both references’ express

architecture in favor of a modification neither teaches or suggests. *Id.* This is impermissible hindsight.

Third, the motivation to combine Sutardja with Gale is conclusory. Petitioner's entire motivation to combine is essentially a single sentence: "A POSITA would have recognized that incorporating Gale's time it takes to charge the vehicle into Sutardja's scheduled time the user wishes their vehicle to charge would have improved overall efficiency of Sutardja's system since as an example in order to charge between 9-6pm, it would be necessary to know how long the car must charge and a POSITA would have had a REOS." Pet., 68. Petitioner thus says it would have been obvious to know how long charging takes because "it would be necessary to know." That is not a reason—it is a circular restatement of the problem.

Fourth, Petitioner does not actually identify *which component* of Sutardja's system would be modified to incorporate Gale's charge-time calculation, or *how* the modification would be implemented. Would the charge-time calculation be added to modules 112/106 (the mapped "controller")? To the LMM? To the overall CMS? The Petition is silent. Without identifying the component to be modified and explaining how the resulting system would satisfy the claim, Petitioner's obviousness theory is incomplete. Indeed, if Petitioner is arguing that it would be obvious to modify the LMM 134 based on Gale, even if that were obvious it would not result in the alleged "controller" (modules 112/106) having the claimed

functionality. Ex. 2012 ¶ 136.

For these reasons, Petitioner fails to demonstrate that Claim 8[d] would have been obvious over Sutardja-Kelty-218-Pollack-Gale. Any purported charge-time computation in Sutardja and Gale resides at the utility-level, not at the user/vehicle level. *Id.* ¶ 137. Petitioner’s conclusory motivation to combine does not satisfy *KSR*’s requirement for articulated reasoning and Petitioner fails to explain why a POSITA would impart Gale’s utility-level functionality into the on-board modules 112/106. Nor does Petitioner explain which component would be modified or how the resulting system would satisfy the claim.

- 3. Claim 8[e]: “wherein the controller automatically changes the supply of electric power to the vehicle battery at a time associated with a cost of power to the battery reaching a threshold cost of power to the battery, wherein changing the charging state of the vehicle charger includes automatically starting charging when the cost of power to the battery is equal to or less than the threshold cost of power, and”**

Petitioner refers back to Claim 1[c] to address this limitation. For the same reasons discussed with respect to that limitation, Petitioner fails to demonstrate that the prior art renders this element obvious. *Supra* Section IV.A.3; Ex. 2012 ¶ 138.

- 4. Claim 8[f]: “wherein the controller is responsive to at least one signal from the remote controller by changing the supply of electric power to the vehicle battery to start charging, the at least one signal from the remote controller being received by the controller in response to a user selecting a second user-manipulable control on a screen associated with the remote controller.”**

a) The Combination Was Not Obvious.

Claim 8[Pre] recites a “vehicle charger adapted for wireless communication with **a computer remote from the vehicle and vehicle charger, the computer including a remote controller**” and Claim 8[f] recites “**the remote controller.**” Petitioner maps the “remote controller” to “**Kelty’s computer implementing Sutardja’s UIM-WNIM,**” which is the same structure that Petitioner mapped to the “remote” second controller of Claim 1[pre] and Claim 1[d][i]. For the same reasons discussed with respect to those limitations, Petitioner fails to demonstrate that it would have been obvious to implement Sutardja’s UIM-WNIM on Kelty-218’s “home computer.” *Supra* Section IV.A.4.a; Ex. 2012 ¶ 139.

b) The Combination Does Not Possess All Elements.

i. “remote controller”

Even if it had been obvious to implement Sutardja’s UIM-WNIM on Kelty-218’s “home computer” and to move that computer into a different location on the home premises, it would still not result in the claimed “***remote*** controller.” *Supra* Section IV.A.4.b; Ex. 2012 ¶ 140.

ii. “user-manipulatable control on a screen”

Petitioner relies on Pollack for the “user-manipulatable control on a screen,” just as it did with respect to this limitation in Claim 1[d][ii]. However, even if Pollack is combined with Sutardja-Kelty-218 as proposed, the combination fails to disclose this limitation. *Supra* Section IV.A.5; Ex. 2012 ¶ 141.

D. Grounds 4–9

Grounds 4 through 9 are each directed toward dependent claims that depend from Claims 1, 8, or 15. Because Petitioner fails to establish the obviousness of any independent claim for the reasons set forth above, these dependent-claim grounds necessarily fail as well. Moreover, Petitioner does not contend that any of the additional references cited in Grounds 4–9 (Uchida, Zhang, Evans) cure the deficiencies identified above. Accordingly, Grounds 4 through 9 fail for the same reasons as the grounds directed to the independent claims. *Id.* ¶ 142.

V. PETITIONER’S VOLUMINOUS, REPETITIVE AND CONCLUSORY “MTC” AND “REOS” ARGUMENTS WARRANT DENIAL

“[W]here a petition contains voluminous or excessive grounds, Office guidance indicates ‘[t]he panel will evaluate the challenges and determine whether...the entire petition should be denied....’” *Adaptics Ltd. v. Perfect Co.*, IPR2018-01596, Paper 20 at 17-18 (PTAB Mar. 6, 2019) (informative). The *Trial Practice Guide* advises petitioners to “focus on concise, well-organized, *easy-to-follow* arguments....” *Id.* at 16.

Despite this admonishment, Petitioner proposes *nine* grounds and *twelve* alleged “motivations to combine,” each with a “reasonable expectation of success,” which Petitioner refers to as “MTCs” and “REOS” to skirt the word-count limitations. Pet., ii-vii (Table of Contents). These “MTCs” duplicate essentially the

same high-level rationale across all twelve instances and are dispersed sporadically throughout the Petition, making the obviousness theories anything but “easy-to-follow.” Petitioner’s scattershot approach significantly prejudices Patent Owner, as it is not plausible to fully respond to *twelve different “MTCs”* within the word-count limitations—particularly given that Petitioner cheats the word-count. *Infra* Section IX.

VI. PETITIONER’S OBVIOUSNESS THEORIES IMPROPERLY FOCUS ON INDIVIDUAL CLAIM ELEMENTS RATHER THAN THE INVENTION AS A WHOLE

Petitioner combines references on an element-by-element basis with separate analyses for each individual element—an approach that has been explicitly rejected because it fails to analyze the invention as a whole. Petitioner also isolates components from the asserted references, ignoring their overall teachings. But “a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418-19 (2007). Petitioner must show why a POSITA would combine the references “in the way *the claimed new invention* does.” *Id.* The Federal Circuit explained that such an approach “unduly dissects prior art references into collections of individual elements,” and that “[t]he claimed invention and an invention in the prior art must both be analyzed **as a whole** for the same reason: an invention is more than the sum of its individual elements.” *GE v. Raytheon Techs.*

Corp., 983 F.3d 1334, 1352 (Fed. Cir. 2020). Petitioner violates this prohibition by providing independent “MTC” and “REOS” arguments (based on *out-of-context teachings*) directed at *individual elements* rather than the invention as a whole.

VII. PETITIONER’S DECLARANT IS ENTITLED TO LITTLE OR NO WEIGHT

Mr. Andrews largely “offers only a *verbatim* restatement of the assertion[s] being supported, without any supporting evidence or technical reasoning.” *Xerox Corp.*, IPR2022-00624, Paper 9 at 16; *compare, e.g.,* Pet. at 5–50 with Ex. 1003 ¶¶ 101–200 (Ground 1 analysis); Pet. at 50–63 with Ex. 1003 ¶¶ 201–232 (Ground 2 analysis); Pet. at 63–70 with Ex. 1003 ¶¶ 233–253 (Ground 3 analysis). His testimony should thus be accorded no weight.

VIII. PETITIONER FAILS TO PRESENT A SUFFICIENT NUMBER OF GROUNDS THAT MEET THE INSTITUTION THRESHOLD

Given the weakness of the Petition as a whole, it would be an inefficient use of the Board’s time and resources to institute even if Petitioner had met its burden on some claims (it has not). *Chevron Oronite Co. LLC v. Infineum USA L.P.*, IPR2018-00923, Paper 9 at 10-11 (PTAB Nov. 7, 2018) (informative).

IX. PETITIONER VIOLATES THE WORD COUNT REQUIREMENTS.

Petitioner's Certificate of Word Count states that the Petition "contains 13,887 words." Pet., 94. However, Petitioner improperly skirts the word-count system to undercount by at least 378 words by improperly omitting spaces, such as "EX1003-Dec., ¶¶103." *See e.g.*, Pet. 3. The Board has found that this constitutes an "effort to circumvent our word count limits." *See Life Spine, Inc. v. Globus Medical, Inc.*, IPR2022-01434, Paper 12 at 2 n.1 (PTAB Mar. 2023). Petitioner similarly resorts to an excessive and bizarre level of abbreviation ("MTC," "REOS") to artificially reduce the word count. This is another factor to consider in deciding whether to institute. Indeed, the fact that Petitioner is incapable of demonstrating alleged invalidity using 14,000 words for only 20 claims is further evidence of the weakness of the validity challenge.

X. CONCLUSION

For the reasons above, Patent Owner respectfully requests that the Board deny institution.

Dated: September 23, 2026

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. §§ 42.6(e)(4), the undersigned certifies that on September 23, 2026, a copy of the foregoing document (*Patent Owner's Preliminary Response*, including all Exhibits), was served via electronic mail on the following attorneys of record at the indicated e-mail address(es):

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CERTIFICATE OF COMPLIANCE

The undersigned certifies that this document complies with the type-volume limitations set forth in 37 C.F.R. § 42.24 *et seq.* This document, excluding those portions excluded pursuant to § 42.24(a)(1), contains 13,994 words as calculated by the “Word Count” feature of Microsoft Word for Office 365, the program used in creating it.

/Stephen D. Zinda/
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