

Filed and served on May 9, 2024

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

TESLA, INC.
Petitioner

v.

GRAPHITE CHARGING COMPANY, LLC
Patent Owner

Case No. IPR2024-00387
U.S. Patent No. 8,103,391

Claims 1-20

**PATENT OWNER GRAPHITE CHARGING COMPANY LLC'S
PRELIMINARY RESPONSE**

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List of Exhibits

Exhibit Number	Exhibit Title
2001	Parallel District Court Litigation Docket
2002	Parallel District Court Litigation, Dkt. No. 64

I. INTRODUCTION

Petitioner Tesla, Inc. (“Petitioner” or “Tesla”) filed this Petition for *Inter Partes* Review (“IPR”) of Claims 1-20 of U.S. Patent No. 8,103,391 (EX1001, “the ’391 Patent”), which was accorded a filing date of February 1, 2024 (the “Petition”). (Paper 3, at p. 1). Pursuant to 37 C.F.R. § 42.107(a), Patent Owner Graphite Charging Company, LLC (“Graphite” or “Patent Owner”) submits the following Preliminary Response setting forth the reasons why an IPR should not be instituted. In accordance with 37 C.F.R. § 42.107(a), Patent Owner files this Preliminary Response within the three month period following the date of the notice dated February 9, 2024 for the Petition.

Petitioner fails to meet its “burden for proving a proposition of unpatentability by a preponderance of the evidence,” 35 U.S.C. § 316(e), for the following reasons.

1. First, Petitioner’s obviousness challenge in Ground 1 fails because Kimura does not teach all the elements of independent claims 1, 8, 15, and 20; because Petitioner fails to include relevant evidence in its Petition; and because Petitioner did not provide the required analysis for the motivation to combine and reasonable expectation of success for a single prior art reference.

2. Second, Petitioner’s obviousness challenge in Ground 2 fails because the asserted references do not teach the challenged claims’ elements; because the claims challenged in Ground 2 depend from those challenged in Ground 1; and

because Petitioner failed to provide the required analysis for motivation to combine and reasonable expectation of success for multiple prior art references.

3. Third, Petitioner's obviousness challenge in Ground 3 fails because the asserted references do not teach the challenged claims' elements; because the claims challenged in Ground 3 depend from those challenged in Ground 1; and because, similar to Ground 2, Petitioner failed to provide the required analysis for motivation to combine and reasonable expectation of success for multiple prior art references.

4. Fourth, Petitioner's anticipation challenge in Ground 4 fails because Keith does not teach all of the elements of the independent challenged claims.

5. Fifth, Petitioner's obviousness challenge in Ground 5 fails because Petitioner asserts the improper standard for finding obviousness for Claim 3; because the challenged claims depend from claims unchallenged under this ground; because Petitioner failed to provide relevant evidence to support its challenges to the claims; and because, similar to Ground 1, Petitioner failed to provide the proper analysis for motivation to combine and reasonable expectation of success.

6. Sixth, Petitioner's obviousness challenge in Ground 6 fails because the challenged claims depend from claims unchallenged under this Ground; and because, similar to Grounds 2 and 3, Petitioner failed to provide the proper analysis for motivation to combine and reasonable expectation of success.

7. Seventh, the Petition should be discretionarily denied under the *Fintiv* factors because, upon a holistic review of all six factors, four of the first five *Fintiv* factors weigh in favor of denial of the Petition and one is neutral; the sixth *Fintiv* factor further endorses a decision against institution due to the deficiency of Petitioner’s merits-based arguments.

For these and the additional reasons provided in this Preliminary Response, the Board should deny institution of the Petition.

II. BACKGROUND

A. The ’391 Patent.

The ’391 Patent was filed on August 19, 2008. It has four independent claims (claims 1, 8, 15, and 20) and sixteen dependent claims.

The ’391 Patent is titled “System for Detecting Interrupt Conditions During an Electric Vehicle Charging Process,” and addresses methods and apparatuses for managing electric vehicle charging transactions, particularly by monitoring a charging process for interrupt conditions that terminate the charging process. (EX1001, 1:9-14). With the increasing costs of fossil fuels and concern over reliance on non-renewable resources, electric vehicles have become a critical component of transportation systems throughout the world. (*See id.* at 1:18-22). Electric vehicles rely on electric power to drive the vehicle. (*Id.* at 1:25-26).

Electric vehicles contain electric storage mechanisms, such as batteries, to store electricity until they are needed to power the electric vehicle. (EX1001, at 1:27-29). These electric storage mechanisms require periodic charging to replenish the electric charge for continued operation, and the electricity used to charge the electric storage mechanisms can be provided by any type of on-vehicle power generation and charging mechanism. (*Id.* at 1:29-33.)

Electric vehicle charging can also be accomplished by plugging the electric vehicle into an off-vehicle charging station. (EX1001, at 1:40-43). This type of charging station provides an external source of electricity, such as an electric power grid. (*Id.* at 1:43-44). Because off-vehicle charging is significantly less expensive than on-vehicle charging, off-vehicle charging is preferred. (*Id.* at 1:46-50).

The power stored in the electric storage mechanisms are used to provide electricity back to the electricity grid. (EX1001, at 1:51-54). Electric vehicles are connected to an off-vehicle infrastructure so electric vehicles can supply electric power to electric power grids. (*Id.* at 1:54-56). The off-vehicle infrastructure efficiently consumes the electricity generated or stored by the electric vehicle. (*Id.* at 1:56-58).

As of the filing date of the '391 Patent, previous electric vehicle manufacturers and electric utility companies had only planned and provided infrastructure and methods “for the most rudimentary charging scenario in which the

electric vehicle is plugged into a common electric outlet.” (EX1001, at 1:58-62). As such, the ’391 Patent describes systems, methods, and computer program products for managing a charging process of an electric vehicle by monitoring a set of operational parameters for the charging process during the flow of electricity for one or more interruptions in response to receiving a request from an energy transaction execution engine to start the charging process. (*Id.* at 1:66-2:5). The interruptions are detected from the set of operational parameters and may comprise at least one of a device capabilities interruption, a preference interruption, and a data services interruption. (*Id.* at 2:5-10). Upon detecting one or more of these interruptions, a response is sent to the energy transaction execution engine to terminate the electric vehicle charging transaction. (*Id.* at 2:10-13).

B. Petitioner’s Asserted Grounds.

Petitioner presents six grounds for *inter partes* review based on the following five references:

Record Citation	Reference	Shorthand Name¹
EX1002	U.S. Patent No. 5,596,258	Kimura
EX1003	U.S. Patent No. 5,650,710	Hotta

¹ The Petition applies shorthand names to reference the prior art asserted in the Petition’s grounds. Patent Owner uses Petitioner’s convention for ease of reference.

EX1004	U.S. Patent No. 5,659,240	King
EX1005	U.S. Patent No. 5,696,367	Keith
EX1006	U.S. Patent No. 5,548,200	Nor

Petitioner argues that claims 1-20 of the '391 Patent are either anticipated or rendered obvious based upon these six grounds, and rely on various combinations of the five references described above, as well as the Declaration of C. Arthur MacCarley, Ph.D., P.E. (EX1009). Petitioner's grounds are summarized below.

Ground	Reference(s)	Basis	Claims Challenged
1	Kimura	§ 103	1, 4-8, 11-15, and 18-20
2	Kimura and Hotta	§ 103	2, 5, 9, 12, and 16
3	Kimura and King	§ 103	3, 10, and 17
4	Keith	§ 102	1, 2, 4-9, 11-16, and 18-20
5	Keith	§ 103	3, 8-19
6	Keith and Nor	§ 103	6 and 13

C. The '391 Patent's Prosecution History.

The '391 Patent was filed on August 19, 2008. In response to a non-final rejection, the patentee conducted an interview with the examiner. (EX1007, at p. 47). During the interview, the Examiner stated that U.S. Patent No. 6,614,204 to Pellegrino et al. ("Pellegrino"), the art used to reject the '391 Patent under 35 U.S.C. § 102, taught a charging process that "includes the ENTIRE process from when a

user approaches the charging station to completion of the delivery charge. Explaining how the claimed invention monitors parameters DURING delivery of the charge may help overcome the . . . reference.” (*Id.* (capitalization in original)).

The patentee distinguished Pellegrino from the claims at issue by arguing that Pellegrino did not monitor or respond to “interruptions,” “device capabilities interruptions,” “preference interruption,” and “data services interruptions” during the flow of electricity. (EX1007, at p. 39). Further, Pellegrino determined if:

[T]he user is or vehicle is either verified and approved, i.e., authorized to proceed charging or parking, with sufficient funds allocated in an account kept by the user or for the vehicle for the operation selected, or the user or vehicle is not verified and denied access, or if verified, is denied access to charging due to either a block on the account for insufficient funds, an outstanding stolen property report in the database or other reason.

(EX1007, at p. 40 (quotation marks omitted)).

The patentee further noted that claim 1 of the ’391 Patent teaches that the charging process begins before monitoring for other interruptions, in contrast to Pellegrino, which “never functions during the flow of electricity.” (EX1007, at p. 40). Similar arguments were presented for claims 8 and 15 of the ’391 Patent, where Pellegrino “only function[ed] to decide if the user or vehicle is ‘authorized to proceed with charging or parking.’” (*Id.*) Regarding independent claim 20, the patentee noted that the prior art “functions to authorize the start of electricity flow and does not apply to the charging with the actual flow of electricity.” (*Id.* at p. 41).

The Examiner then issued a Notice of Allowance, and allowed the claims of the '391 Patent for the following reasons:

The prior art of record fails to suggest either singly or in combination a novel computer implemented method, computer program product or apparatus wherein a set of operational parameters of a charging process are monitored during the flow of electricity for one or more interruptions which conform to a set of predefined interrupt conditions, wherein the one or more interrupt conditions comprise at least one of a data capabilities interruption, a preference interruption and a data services interruption and a response sent to the energy transaction execution engine to terminate the charging process in response to detecting the one or more interruptions.

(EX1007, at p. 23).

III. ORDINARY LEVEL OF SKILL IN THE ART

For the purposes of this Preliminary Response, Patent Owner generally does not contest the level of ordinary skill in the art as stated by Petitioner. (See Petition, at p. 6). However, Patent Owner disputes Petitioner's characterization of a POSA's experience and knowledge of the J1772 standard. This dispute arises because Petitioner's detailed discussion of the POSA's knowledge concerning this standard appears only within the expert declaration. (See EX1009, at ¶ 56), rather than in the main text of the Petition. Such presentation constitutes an improper incorporation by reference. Therefore, it should not be taken into account when assessing the level of ordinary skill in the art. (See Section VI, *infra*).

IV. CLAIM CONSTRUCTION

For purposes of this Preliminary Response, Patent Owner states that no express construction is necessary at this stage. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’”) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

V. THE ASSERTED PRIOR ART

Petitioner relies upon five references to support its contention that the challenged claims of the ’391 Patent are obvious or anticipated. For the reasons stated below, none of Petitioner’s asserted art supports its Grounds, as significant differences exist between the ’391 Patent and this prior art.

A. Kimura.

Kimura concerns a method and apparatus for charging an electric vehicle “even if the communication system between a charger and electric vehicle has failed” through a “charge fail-safe pattern during the communication abnormality.” (EX1002, at 1:41-46). During the “communication abnormality,” a “minimum charge” is provided to the battery of the electric vehicle. (*Id.* at 2:10-15). The minimum charge is provided to the electric vehicle’s battery through a current “lower than the usual level” and for a shorter charge time than the normal charge time. (*Id.* at 8:37-42). It is only upon the expiration of this shorter charge time (T2)

that charging terminates. (*Id.* at 8:43-47). “Thus, a minimum charge can be assured even if the communication abnormality occurs.” (*Id.* at 11:56-61); (*see also id.* at 11:62-12:2 (“[T]he minimum charge can be carried out in safety even if the communication system has failed between the charger and electric vehicle.”)).

B. Hotta.

Hotta concerns an apparatus that controls the charging of an electric vehicle’s battery and is “capable of finishing the charging of a storage battery at a scheduled time for boarding the vehicle.” (EX1003, at 1:12-17). Electric vehicle charging begins when a controller 21 issues a charging start command key switch 51. (*Id.* at 6:21-23). Based on the charging start command, the apparatus will stay in charging hold mode “a” until a charging start time corresponding with a charging finish time at the scheduled time to board the vehicle is calculated. (*Id.* at 6:23-27).

In order for electric charging to terminate in Hotta, the controller must first determine whether both the temperature inside the storage battery and the concentration of hydrogen gas generated by the storage batteries is equal to or exceeds a predetermined value. (*See* EX1003, at 14:52-67); (*see also id.* at Figs. 9-16). If either the battery temperature or the hydrogen concentration is equal to or exceeds the predetermined value, then the controller executes a charge holding mode “b.” (*See id.*) When charge holding mode “b” ends, the process repeats; charging is

only terminated after the apparatus finds both the battery temperature and hydrogen concentration below the threshold values. (*Id.* at 14:66-67).

The time to charge the vehicle up to the scheduled boarding period time is calculated as: 1) a night period (T_n) in a night time zone in which the electric power supply is available during the night; and 2) a day period (T_d) in a day time zone in which the electric power supply is available during the day. (EX1003, at 7:48-54). The night time zone “is assumed to be a time of less [electric power] consumption” and supplies a voltage of 200 V from 11 PM to 7 AM. (*Id.* at 7:57-8:2). During the day time zone, it is assumed that more consumption of electric power occurs, so only 100 V of power is provided from 7 AM to 11 PM. (*Id.* at 8:2-10). If charging does not finish within the night time zone or the day time zone, then the electric vehicle cannot be fully charged. (*See id.* at 8:22-9:8, 10:11-18).

C. King.

King concerns battery chargers “for use in charging batteries used in electrically propelled vehicles.” (EX1004, at 1:4-6). The control system for the battery charger monitors battery current, voltage, and temperature and “periodically stores such data in a non-volatile memory.” (*Id.* at 1:49-52). The memory is specifically accessed to retrieve the discharge history for the battery, including both sensed and computed data. (*Id.* at 1:52-54, 4:57-58). “The discharge data are then

manipulated to determine the net ampere-hours of discharge” and the charger controller computes a target recharge ampere-hour value. (*Id.* at 1:54-58).

Periodically during charging, a low level equalizing charge is applied to the battery and data “computed in drive system controller 10 and stored in non-volatile memory 34 are used to establish when the normal charge should be followed by an equalizing charge.” (EX1004, at 5:34-38). For example, equalization charges are generally applied once a calendar month for lead-acid batteries. (*See id.* at 6:44-47).

D. Keith.

Keith concerns “electric vehicles which are operated with a battery and charging stations to which the vehicles may be presented for a charge when connected thereto.” (EX1005, at 1:9-12).

E. Nor.

Nor concerns apparatuses and methods for charging electric vehicle batteries whether the charge controller is on board the vehicle or associated with the electric vehicle battery. (EX1006, at 1:7-14). A monitoring system monitors “the data communication link between the electric battery being charged and the power

station.” (*Id.* at 4:52-55). Nor also relies on the below from U.S. Patent No. 5,206,278 for the monitoring system:²

NOR U.S. Pat. No. 5,206,578, issued Apr. 27, 1993, teaches a monitoring system for batteries during charge or discharge whereby terminals are placed between adjacent pairs of modules and at the end of each battery so that voltage across each module may be measured at the pair of terminals that defines that module. Some or all of the modules may be tested periodically, such as by appropriate operation of a multiplexer. Alarms may be triggered in the event that module voltages are outside of predetermined limits. The testing may, in fact, continue no matter whether the battery is being charged or discharged.

(EX1006, at 5:48-58).

VI. LEGAL STANDARD

“[T]he petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3)). This burden never shifts to the Patent Owner. *See Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

The Board has previously declined to consider “argument[s] [that are] raised solely in [an expert] Declaration but not also in the Petition . . . for purposes of [the

² These teachings from other patents, according to Nor, help a POSA obtain “a greater understanding of the present invention....” (*Id.* at 2:66).

Institution] Decision.” *Dep’t of Justice v. Discovery Patents*, IPR2016-01035, Paper 11, at pp. 8-9 (PTAB Nov. 15, 2016). Such activity can amount to an impermissible incorporation by reference under 37 C.F.R. § 42.6(a)(3) that is not entitled to consideration by the Board. *Apple Inc. v. ContentGuard Holdings, LLC*, IPR2015-00446, Paper 11, at p. 16 (PTAB July 10, 2015); *see also Parus Holdings, Inc. v. Google LLC*, 70 F.4th 1365, 1372 (Fed. Cir. 2023). For example, in *Apple Inc. v. ContentGuard Holdings*, the Board denied institution of a petition that used its expert declaration to “vastly expand [the petition’s] thin analysis and reasoning.” IPR2015-00446, Paper 11, at p. 16 (citing *Cisco Sys., Inc. v. C-Cation Techs., LLC*, IPR2014-00454, Paper 12, at pp. 7-10 (PTAB Aug. 29, 2014) (informative)). Further, in *Cisco Sys., Inc. v. C-Cation Techs., LLC*, the Board denied institution of a petition that offered a single paragraph of conclusory argument on motivation to combine before following it with a footnote that:

Cit[ed] to [multiple paragraphs and pages] of [the expert’s] Declaration . . . indicating the combinations would have been “well within the ordinary creativity of a person of ordinary skill in the art” and providing reasons why one would have combined the teachings of the references.

IPR2014-00454, Paper 12, at p. 9 (also holding that “[t]his practice of citing the Declaration to support conclusory arguments that are not otherwise supported in the Petition . . . amounts to incorporation by reference.”).

Prohibiting “incorporation of arguments from other documents serves various policy goals, including to ‘minimize the chance that an argument may be overlooked’ and to ‘eliminate[] abuses that arise from incorporation and combination.’” *Parus Holdings*, 70 F.4th at 1372 (internal citations omitted); see also *id.* (Incorporation “by reference amounts to a self-help increase in the length of the [] brief,” and “is a pointless imposition on the court’s time.” (quoting *DiSilva v. DiLeonardi*, 181 F.3d 865, 866-67 (7th Cir. 1999))).

The Board cannot cure a Petitioner’s deficient motivation to combine an asserted combination of references; rather, the Board must make its institution decision based on what the Petition presents and not what it could have reasonably contained had it been reformulated. *In re Magnum Oil Tools Int’l Ltd.*, 829 F.3d 1364, 1381 (Fed. Cir. 2016) (holding that the Board cannot “adopt arguments on behalf of petitioners that could have been, but were not, raised by the petitioner during [a post-grant proceeding].”) Indeed, the Board cannot “deviate from the grounds in the petition and raise its own” invalidity theories. *Sirona Dental Sys. GmbH v. Institut Straumann AG*, 892 F.3d 1349, 1356 (Fed. Cir. 2018).

Ultimately, “[t]he Director may not authorize an inter partes review to be instituted unless the Director determines that the information presented in the petition . . . shows that there is a reasonable likelihood that the petitioner would

prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a); *accord* 37 C.F.R. § 42.108(c).

VII. GROUND 1: KIMURA DOES NOT RENDER THE CHALLENGED CLAIMS OBVIOUS

A patent claim is deemed non-obvious if even a single element of the claim is absent from the prior art. As the court noted in *CFMT, Inc. v. YieldUp Int’l Corp.*, “[o]bviousness requires a suggestion of all limitations in a claim.” 349 F.3d 1333, 1342 (Fed. Cir. 2003) (citing *In re Royka*, 490 F.2d 981, 985 (C.C.P.A. 1974)). Similarly, in *Garmin Int’l, Inc. v. Patent of Cuozzo Speed Techs. LLC*, the PTAB declined to institute an IPR under 35 U.S.C. § 103 due to the absence of all claim limitations in the prior art. IPR2012-00001, Paper 15, at p. 15 (PTAB Jan. 9, 2013).

A reference should be evaluated holistically, considering all it teaches, not merely the described invention or preferred embodiments, as clarified in *In re Applied Materials, Inc.*, 692 F.3d 1289, 1298 (Fed. Cir. 2012) (internal citation omitted). Thus, attempting to cherry-pick teachings from different embodiments, as Petitioner does, is improper. This principle is supported in *BlephEx, LLC v. Myco Indus., Inc.*, where the court held that “[i]t is not enough that the prior art reference includes multiple, distinct teachings that the artisan might somehow combine to achieve the claimed invention....” 24 F.4th 1391, 1400-02 (Fed. Cir. 2022).

Like all obviousness analyses, single-reference obviousness requires “some rational underpinning explaining why a person of ordinary skill in the art would have

arrived at the claimed invention.” *In re Stepan Co.*, 868 F.3d 1342, 1346 (Fed. Cir. 2017); *Cisco Sys., Inc. v. Bockstar Techs. LLC*, IPR2014-01192, Paper 10, at p. 13 (PTAB Feb. 2, 2015).

While a patent claim can be “obvious in light of a single prior art reference if it would have been obvious to modify that reference to arrive at the patented invention,” single-reference obviousness is “less common” and only applicable in “appropriate circumstances.” *Arendi S.A.R.L. v. Apple Inc.*, 832 F.3d 1355, 1361 (Fed. Cir. 2016). “The mere fact that the prior art can be modified does not make the modification obvious unless the prior art suggests the desirability of the modification.” *In re Urbanski*, 809 F.3d 1237, 1243 (Fed. Cir. 2016) (internal citation omitted); *In re Laskowski*, 871 F.2d 115, 117 (Fed. Cir. 1989) (denying application of single-reference obviousness where the record lacked evidence that the modification would be “desirable”).

A. Petitioner Fails to Provide Adequate Evidence or Arguments Supporting Obviousness Under Kimura for the Challenged Claims.

Petitioner has not substantiated its assertion that the claim limitations are obvious under Kimura. The Petition lacks the “particularity” needed to pinpoint the grounds and evidence as required in IPR proceedings. This necessity for specificity was highlighted in *Intelligent Bio-Sys., Inc. v. Illumina Cambridge Ltd.*, where the court stressed “the utmost importance” in clearly identifying “‘with particularity’ the

‘evidence that supports the grounds for the challenge to each claim.’” 821 F. 3d 1359, 1369 (Fed. Cir. 2016). Additionally, Petitioner’s reliance on expert testimony from a declaration to address deficiencies in the Petition undermines its position; such reliance is an improper incorporation by reference of arguments that do not appear in the Petition, requiring its denial. (See Section VI, *supra*).

1. Claim 1[P].

For claim 1[P], Petitioner fails to adequately discuss how Kimura’s teachings satisfy the “charging process” requirement, merely concluding that it is obvious without detailed analysis.³ (Petition, at p. 8). Furthermore, any argument regarding the meaning of “charging process” from sources outside the Petition’s main text should be disregarded, as this represents an improper incorporation by reference of arguments not present within the Petition itself. (See EX1009, at ¶ 49; *see also* Section VI, *supra*).

2. Claim 1[A].

³ For the purposes of this Preliminary Response, Patent Owner does not address whether the preamble of claim 1, or any other claim in the ’391 Patent is limiting for Ground 1 or any other Grounds. (See Petition, at p. 7). Patent Owner reserves the right to argue whether the preamble of any claims are limiting in future proceedings.

Petitioner fails to establish the elements of claim 1[A] because it does not argue in the Petition how Kimura teaches several key claim elements. Specifically, for the “energy transaction execution engine,” Petitioner merely states that the hypothetical structure for this claim term would be the energy transaction execution engine and any implementing algorithm. (Petition, at p. 14, n.4).⁴ Additionally, the Petition also claims that “Kimura at least teaches an equivalent,” yet fails to define any specific structure for that equivalent within Kimura. (*Id.*) Any reliance on the specific equivalent structure as discussed in the expert declaration (*See* EX1009, at ¶ 59) should be dismissed, as it constitutes an improper incorporation by reference. The lack of necessary structural analysis in the Petition clearly indicates that Petitioner has not met its burden of proving that claim 1[A] is obvious under Kimura, as supported by *Pride Solutions, LLC, v. Not Dead Yet Mfg., Inc.*, IPR2013-00627, Paper 14, at pp. 9-10 (PTAB Mar. 17 2014) (citing *In re Donaldson Co.*, 16 F.3d

⁴ For the purposes of this Preliminary Response, Patent Owner is solely addressing Petitioner’s hypothetical means-plus-function argument, and does not currently take a position on whether the “energy transaction execution engine” constitutes a means-plus-function claim. Accordingly, Patent Owner reserves the right to propose alternative claim constructions in subsequent proceedings, both here and in parallel litigation.

1189, 1193 (Fed. Cir. 1994) (en banc)); *Fresenius USA, Inc. v. Baxter Int'l, Inc.*, 582 F.3d 1288, 1299 (Fed. Cir. 2009).

Regarding the operational parameters claim element, Petitioner contends that Kimura addresses claim element 1[A] through operational parameters like the amount of power leakage in the electric vehicle 10, state of the battery 11, state of the charge circuit, voltage of the battery 11, quantity of the battery 11, and communication delay time. (Petition, at p. 15). However, Petitioner does not demonstrate how these elements align with the teachings of the '391 Patent, instead improperly relegating this argument to its expert declaration. (EX1009, at ¶ 61). This approach is repeated in Petitioner's arguments about monitoring the parameters during the flow of electricity. (*Id.* at ¶¶ 63-64; *see also* Petition, at pp. 11-21). Consequently, the lack of evidentiary support in the Petition regarding how the operational parameters in Kimura correspond to those in the '391 Patent necessitates the denial of Ground 1.

3. Claim 1[B].

In addressing the obviousness of detecting interruptions when monitoring operational parameters, Petitioner argues that:

At a minimum, detecting electric-vehicle abnormalities would have been an obvious technique for comparing an operational parameter against a corresponding, predefined interrupt condition.

(Petition, at p. 24 (citing EX1009, ¶ 81)).

However, paragraph 81 of the expert declaration does not provide any documentary evidence to support this assertion. (See EX1009, ¶ 81). Additionally, the expert's further assertions regarding the necessity of comparing operational parameters during the charging process against values indicative of an interruption, and how these comparisons determine if a parameter is out of range or indicates an abnormality, are absent from the Petition. Consequently, this reliance on the expert declaration amounts to an improper incorporation by reference of arguments, and therefore, should not be considered by the Board in evaluating this ground. (See Section VI, *supra*).

4. Claim 1[C].

Petitioner attempts to argue that the interruption of device capabilities would be obvious under Kimura due to loose connections at connectors during the flow of electricity, claiming “[n]othing in the Challenged Claims precludes an interruption from qualifying as multiple types of interruptions.” (Petition, at pp. 31-32 & n.6). However, Petitioner fails to provide any intrinsic or extrinsic evidence to support this assertion. Such unsubstantiated speculation should not be accepted by the Board for this claim element, and it is evident that Petitioner's argument for Claim 1[C] lacks the particularity required for instituting an IPR.

Furthermore, Petitioner contends that Kimura teaches every limitation of claim 1 because the J1772 standard supports Petitioner's analysis. (See Petition, at

p. 36). However, this is the first (and only) mention of the J1772 standard outside of the background information provided in the Petition. (*See id.* at p. 6). Discussions regarding a POSA’s understanding of the J1772 standard and its relevance to the obviousness argument are solely contained within Petitioner’s expert declaration (*see* EX1009, at ¶¶ 56, 68), and should therefore be considered as arguments improperly incorporated by reference. (*See* Section VI, *supra*).

5. Claim 8[A], 8[F].

Petitioner attempts to argue, without support, that Kimura teaches the tangible computer-recordable storage medium because “a POSA at once would have envisaged these respective control programs stored on one or more tangible computer readable media.” (Petition, at pp. 44-45; *see also id.* at p. 46 (explaining that the analysis for claim element 8[F] matches claim 8[A])). Neither intrinsic nor extrinsic support is provided for this argument; thus, it should not be considered by the Board.

6. Claims 8[B]-[E].

Petitioner presents similar unsupported arguments for Claims 8[B]-[E], suggesting “a POSA would have known to store instructions for Kimura’s control programs on a tangible computer-recordable storage medium” in a manner akin to Claims 8[A] and 8[F]. (Petition, at pp. 45-46). Moreover, Petitioner fails to provide any intrinsic or extrinsic evidence to bolster the assertion that:

Each of the operations being associated with program instructions is taught in Kimura through its control programs executed by charger and battery controllers 24 and 14. A program executed by a microcomputer, as Kimura's control programs are, includes instructions for each of its operations, so each of the operations that is a part of Kimura's control programs also includes (at least necessarily) corresponding instructions within the control programs.

(Petition, at p. 45). For at least these reasons, Petitioner's arguments on this issue for Claims 8[B]-[E] should be dismissed by the Board.

Additionally, while Petitioner's expert argues that Kimura's teachings of claim 8 as a whole are "entirely consistent with the '391 Patent itself, which indicates that these aspects are left to the common knowledge of a POSA and are not at all inventive . . . [and] taught in any elementary programming class" (see EX1009, at ¶ 121), these assertions are absent from and not referenced in the Petition. Therefore, the Board should disregard these statements in deciding whether Kimura sufficiently teaches the elements of claims 8[B]-[E]. (See Section VI, *supra*).

7. Claims 15[A]-15[C].

Similar to claim 8, Petitioner's expert argues that Kimura's teachings of claim 15 are "entirely consistent with the '391 Patent itself, which indicates that these aspects are left to the common knowledge of a POSA and are not at all inventive." (See EX1009, at ¶ 133). However, once again, this argument is neither included nor referenced in the Petition. Therefore, the Board should exclude this argument when

evaluating whether Kimura teaches the elements of claim 15. (See Section VI, *supra*).

8. Claim 20[A].

Petitioner provides no intrinsic or extrinsic evidence to support its argument that “[t]he charger controller 24 in Kimura executes the charger control program in Kimura, which, alongside the electric vehicle charger control program, allows for executing the charging process in Kimura.” (Petition, at p. 51). Thus, for the reasons previously discussed above, these arguments should not be considered by the Board when evaluating Claim 20[A] under this Ground.

9. Claims 20[B]-[F].

The arguments presented by Petitioner for Claims 20[B]-[F] rely on expert testimony that is not supported by any relevant extrinsic or intrinsic evidence. This expert testimony unsupported by any documents (Petition, at p. 51 (citing EX1009, at ¶¶ 139-140)) should be deemed conclusory and insufficient as evidence when evaluating claims 20[B]-[F] under Ground 1. See *TQ Delta LLC, v. Cisco Sys., Inc.*, 942 F.3d 1352, 1358 (Fed. Cir. 2019) (“Conclusory expert testimony does not qualify as substantial evidence.”) (internal citation omitted).

Finally, Petitioner had options to ensure inclusion of supporting arguments for its obviousness assertions under Kimura that appear only in its expert’s declaration. Petitioner could have requested waiver of the 14,000-word count limit under 37

C.F.R. § 42.24(a)(2), or adjusted its Petition to include these arguments but chose not to. *Parus Holdings*, 70 F.4th at 1372-73. Therefore, given the extensive substantive disclosure deficiencies underlying Petitioner’s Ground 1 arguments, the Board should deny Ground 1.

B. Petitioner Fails to Provide the Required Motivation to Combine and Reasonable Expectation of Success Analysis for Ground 1.

Even in cases involving single-reference obviousness, petitioners must demonstrate both a motivation to combine elements and reasonable expectation of success. *In re Stepan Co.*, 868 F.3d at 1346 n.1 (holding that irrespective of the approach—whether combining multiple embodiments from a single reference, or selecting from large lists of elements in a single reference—a motivation for such combinations and a reasonable expectation of their successful implementation are essential). This ensures that a skilled artisan would indeed arrive at the claimed invention. *Id.* Moreover, the purported motivation to modify a reference cannot merely rely on a POSA’s general knowledge. *See Arendi S.A.R.L.*, 832 F.3d at 1362.

Here, Petitioner only presented a motivation to combine for Kimura for claim 15 (Petition, at p. 48) and has failed to present any argument for a reasonable expectation of success. (*See generally id.* at pp. 7-51). Furthermore, the motivation to combine analysis posits that a POSA would have been motivated to use Kimura’s buses or EEPROMs based on common knowledge in the art. However, the sole support for this claim stems from unsupported testimony found in the expert’s

declaration, which purports only the general knowledge of a POSA. (See EX1009, at ¶ 130). Given that paragraph 130 of the expert declaration improperly attempts to introduce new arguments by reference—an approach that should be disregarded per Section VI, *supra*—such unsubstantiated assertions from a POSA fail to establish a credible basis for a motivation to combine. Thus, Ground 1 should be denied.

VIII. GROUND 2: KIMURA IN VIEW OF HOTTA DOES NOT RENDER THE CHALLENGED CLAIMS OBVIOUS

Each claim challenged in Ground 2 depends directly from one of the independent claims 1, 8, or 15 challenged in Ground 1. In addition to the reasons set forth below, the Petition fails to meet its burden on Ground 2 for similar reasons as those detailed for Ground 1 concerning independent claims 1, 8, and 15. (See Section VII, *supra*).

A. Petitioner Failed to Provide the Required Motivation to Combine.

Petitioner acknowledges that both Kimura and Hotta resolved the same problem: “designing charging processes that work for complex sets of circumstances.” (Petition, at p. 52); *see also Taiwan Semiconductor Manufacturing Company, Ltd. v. Godo Kaisha IP Bridge I*, IPR2016-01442, Paper 7, at p. 20 (PTAB Jan 17, 2017) (where a similar obviousness argument was rejected despite the technologies being similar in the art, due to the problem already being solved). Petitioner does not demonstrate how the general teachings of Kimura are lacking or why “the minimal details provided around certain aspects” of Kimura’s main charger

were not already known to a POSA, necessitating a need to look to Hotta for further clarification and explanation of Kimura’s “main switch.”⁵ (*See id.*). Additionally, the details about certain standards or features that purportedly facilitate the combination of Kimura with Hotta are only presented in Petitioner’s expert’s declaration, not the Petition itself. (*Compare* EX1009, at ¶¶ 146-47, *with* Petition, at p. 53). This reliance on materials not included in the Petition constitutes improper incorporation by reference of the Petition’s arguments, and must be disregarded. (*See* Section VI, *supra*).

Moreover, Petitioner resorts to hindsight analysis to justify the combination of Kimura and Hotta. For a combination to be obvious, there must be a clear and supported reason or motivation to combine—simply using hindsight to align the pieces is insufficient. *Plantronics, Inc. v. Aliph, Inc.*, 724 F.3d 1343, 1353-54 (Fed. Cir. 2013) (reversing district court’s finding of obviousness because it relied improperly on unsupported statements to bridge the gap between the prior art and the claims); *ATD Corp. v. Lydall, Inc.*, 159 F.3d 534, 546 (Fed. Cir. 1998) (“Determination[s] of obviousness cannot be based on the hindsight combination of components selectively culled from the prior art to fit the parameters of the patented invention.”). The “factual inquiry” into the reasons for “combin[ing] references must

⁵ Notably, Hotta was published six months after Kimura. (*See* Petition, at p. 3).

be thorough and searching, and the need for specificity pervades.” *In re Nuvasive, Inc.*, 842 F.3d 1376, 1381-82 (Fed. Cir. 2016).

Petitioner’s argument that a POSA would be motivated to combine these references to understand the implementation of Kimura’s main switch, which is allegedly not detailed in Kimura (Petition, at p. 52), overlooks the fact that patent disclosures “preferably omit that which is well-known to those skilled in the art and already available to the public.” *In re Buchner*, 929 F.2d 770, 661 (Fed. Cir. 1991). If Kimura omits certain details on the basis it would already be known to a POSA, there is no rationale to seek those details in Hotta, undermining Petitioner’s argument for combination. Mere silence in a reference does not equate to permission for inserting any teaching from the prior art to support an obvious motivation. *Zup v. Nash Mfg.*, 896 F.3d 1265, 1371 (Fed. Cir. 2018).

Additionally, Petitioner disregards Kimura’s specific instructions regarding the implementation of the main switch, which clearly delineates its operational context:

[T]he ***charge enable state is defined as a main switch placed at an OFF position***, a parking brake being braked, and a select lever being set to a P (Parking) or N (Neutral) position. Unless the electric vehicle 10 falls in at least the charge enable state, the charging is not carried out. The routine goes to a step S76 in which a warning information is issued and all of the processings are finished.

(EX1002, at 8:17-23 (emphasis added)). This explicit description contradicts the need to consult Hotta for the basic operation and purpose of the main switch, which Kimura clearly addresses.

Furthermore, defining “the problem in terms of its solution” posited by Petitioner underscores “improper hindsight in the selection of the prior art relevant to obviousness.” *Insite Vision, Inc. v. Sandoz, Inc.* 783 F.3d 853, 859 (Fed. Cir. 2015) (quoting *Monarch Kitting Mach. Corp. v. Sulzer Morat GmbH*, 139 F.3d 877, 881 (Fed. Cir. 1998)). Assertions that combining Kimura with Hotta leads to a “commercially-desirable system” or achieves a “commercially successful device,” (Petition, at p. 53), are likewise inappropriate justifications for obviousness. See *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). Such rationale reveal that the choice of Hotta was driven by hindsight focusing on the outcome rather than the state of the art at the time of the invention.

B. Petitioner Failed to Provide the Required Reasonable Expectation of Success.

Petitioner lacks evidentiary support both in the Petition and its expert declaration that a POSA would have had a reasonable expectation of success in integrating Hotta’s command keys to Kimura’s system or modifying Kimura’s main switch with Hotta’s command keys to have “the manual interruption [be] handled like any other interruption in Kimura.” (Petition, at p. 54 (citing EX1009, at ¶¶ 142-

48)). This failure to establish the necessary reasonable expectation of success is fatal to the Petition. *In re Stepan Co.*, 868 F.3d at 1346 n.1.

C. Claim 2.

Petitioner's sole reasonable expectation of success arguments for claim 2 related to the SAEJ1772 standard, alongside arguments about a POSA's understanding about constant current charging and current control analysis, are confined to the expert's declaration and not the Petition. (See EX1009, at ¶¶ 150, 154). This represents an improper incorporation by reference. (See Section VI, *supra*).

D. Claim 5.

In regard to claim 5, an argument concerning Dual In-line Packages introduced by Petitioner's expert is absent from the Petition. (See EX1009, at ¶ 157). This discussion about the POSA's understanding of claim 5 and the motivation to combine Kimura with Hotta should not be accepted by the Board as it would constitute an improper incorporation by reference of arguments to the Petition. (See Section VI, *supra*).

IX. GROUND 3: KIMURA IN VIEW OF KING DOES NOT RENDER THE CHALLENGED CLAIMS OBVIOUS

Each claim challenged in Ground 3 depends directly from one of independent claims 1, 8, or 15 challenged in Ground 1. In addition to the reasons set forth below,

the Petition fails to meet its burden on Ground 3 for similar reasons as those detailed for Ground 1 concerning independent claims 1, 8, and 15. (See Section VII, *supra*).

A. Petitioner Failed to Provide the Required Motivation to Combine.

As with Ground 2 (See Section VIII, *supra*), Petitioner acknowledges that both Kimura and King resolve the same problem: “designing charging processes that work for complex sets of circumstances.” (Petition, at p. 59). However, Petitioner contends that a POSA would seek to modify Kimura “**without departing** from [its] scope.” (*Id.* at p. 60 (emphasis added)). Despite this assertion, King is not utilized to address any deficiencies in Kimura’s approach. Rather, King is used merely to add a non-volatile memory to store operating parameters, even though Petitioner admits that “Kimura already teaches an EEPROM, **which is a type of non-volatile memory as well.**” (*Id.* (emphasis added)). The Petition lacks any argument or evidence explaining why Kimura’s EEPROM is inadequate for storing operational parameters. (See *id.* at pp. 59-63).⁶ Consequently, Petitioner’s acknowledgment that King and Kimura provide equivalent functionality does not substantiate the

⁶ Petitioner’s arguments concerning the EEPROM and its relevance to the motivation to combine, which are solely presented in its expert’s declaration (see EX1009, at ¶ 168), should be disregarded by the Board for the reasons previously discussed. (See Section VI, *supra*).

necessary motivation to combine as required by precedent. *See Unigene Labs., Inc. v. Apotex, Inc.*, 655 F.3d 1352, 1360 (Fed. Cir. 2011); *see also In re Khan*, 441 F.3d 977, 988 (Fed. Cir. 2006).

Moreover, Petitioner engages in impermissible hindsight by asserting the combination of Kimura and King in Ground 3 for the same reasons identified in Ground 2: defining the same problem in terms of the solution (*see* Section VIII, *supra*). Additionally, there is no valid rationale for modifying Kimura’s memory to add a feature (EEPROM) that Kimura itself already incorporates. *See, e.g., In re Schweikert*, 676 F.App’x 988, 995 (Fed. Cir. 2017) (reversing Board’s obviousness determination where proposed modification of prior art was deemed “unnecessary” because prior art “already” performed the function of the proposed additional feature); *Sony Corp. v. Fujifilm Corp.*, IPR2018-01751, Paper 14, at p. 11 (PTAB Apr. 12, 2019) (“Petitioner does not explain adequately why modifying [the first reference] in view of the teachings of [the second reference] and [the third reference] would have been an improvement on what [the first reference] already provides, or why [the first reference] is deficient in any respect, such that a POSITA would have looked to . . . [the second and third references]. . .”).

In an effort to minimize Kimura’s relevance that an EEPROM already acts as a non-volatile memory, thereby negating the need for King, Petitioner fails to support the claim from Kimura itself that “Kimura already teaches an EEPROM,

which is a type of non-volatile memory as well.” (Petition, at p. 60). A careful review of King reveals that its EEPROM is utilized to store operational parameters, such as the charge pattern during the communication abnormalities and the charge time T_2 , during charging. (EX1002, at 8:56-59). Petitioner neglects this aspect of Kimura when proposing a combination with King, which is inappropriate. The practice of selectively citing parts of a reference to support a position while ignoring other parts that are crucial for a complete understanding of what the reference teaches a skilled artisan is deemed impermissible. *In re Hedges*, 783 F.2d 1038, 1041 (Fed. Cir. 1986). Therefore, there is no valid motivation to combine Kimura with King, and Petitioner’s approach amounts to improper hindsight.

B. Petitioner Failed to Provide the Required Reasonable Expectation of Success.

Petitioner’s arguments regarding a reasonable expectation of success are insufficient for reasons similar to those stated for Ground 2 (*See* Section VIII, *supra*). Moreover, these arguments are undermined by the acknowledgement that Kimura’s EEPROM already performs similarly to King’s memory. While Petitioner introduces further arguments concerning the reasonable expectation of success in its expert declaration (*See* EX1009, at ¶ 165), these are not included in the Petition and, therefore, must be dismissed as an improper incorporation by reference of arguments into the Petition. (*See* Section VI, *supra*).

X. GROUND 4: KEITH DOES NOT ANTICIPATE THE CHALLENGED CLAIMS

Under 35 U.S.C. § 102, a claim is anticipated only if a single prior art reference discloses each and every limitation of the claimed invention, either expressly or inherently. *See Tŕ3 Ltd. v. Tre Miliano*, 894 F.3d 1366, 1374 (Fed. Cir. 2018). Thus, the analysis for anticipation “must be conducted on a limitation by limitation basis.” *Gechter v. Davidson*, 116 F.3d 1454, 1460 (Fed. Cir. 1997).

If a prior art reference does not explicitly disclose a specific element of the claim, it may still anticipate if that element is inherently disclosed in the reference. *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999); *see also Guangdong Alison Hi-Tech Co. v. ITC*, 936 F.3d 1353, 1363 (Fed. Cir. 2019) (internal citations omitted). However, inherency must *not* be based on probabilities or possibilities; “[t]he mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268-69 (Fed. Cir. 1991) (quoting *In re Oelrich*, 666 F.2d 578, 581 (C.C.P.A. 1981)).

Regarding the energy transaction execution engine element of claim 1[A], Petitioner suggests in a footnote that “if [the energy transaction execution element] is in means-plus-function format . . . Keith discloses an equivalent,” yet fails to

specify this equivalent structure within the Petition itself. (Petition, at p. 65, n.10);⁷ *Fresenius USA, Inc.*, 582 F.3d at 1299. Petitioner instead presents the corresponding structure only in its expert declaration. (EX1009, at ¶ 179). As established in prior sections, to consider arguments that are only introduced in a document separate from the Petition constitutes an improper incorporation by reference (*See* Section VI, *supra*); thus, these arguments about the corresponding structure should be credited no weight by the Board. Consequently, this ground must fail because Petitioner does not substantiate the anticipation claim with appropriate evidence as required under 37 C.F.R. § 42.104(b)(3) and § 42.104(b)(4) (which mandates the identification of equivalent structures in the asserted references). All claims challenged under this ground fail for similar reasons, either due to their dependency (claims 2-7) or because the other independent claims (8, 15, and 20) and their corresponding dependent claims also incorporate the “energy transaction execution engine” claim term at issue.

XI. GROUND 5: KEITH DOES NOT RENDER THE CHALLENGED CLAIMS OBVIOUS

⁷ As with Ground 1, Patent Owner’s response to Petitioner’s means-plus-function arguments is limited to the scope of this Preliminary Response. Patent Owner reserves the right to assert different claim constructions in subsequent proceedings, both in this venue and in parallel litigation.

Keith fails to establish the challenged claims as obvious for several reasons. Primarily, Petitioner’s assertion that “Claim 3 depends from Claim 1, which Keith anticipates,” causing Keith to also render Claim 3 obvious, is flawed. (Petition, at p. 95). As previously discussed, Keith does not anticipate Claim 1; hence, dependent Claim 3, which depends from Claim 1, cannot be deemed obvious by Keith alone. (See Section X, *supra*). Further, by not contesting Claim 1 as obvious under Keith, Petitioner implicitly concedes that independent Claims 1 and 20, along with dependent claims 2-7, are non-obvious, aligning with the principle that “[d]ependent claims are nonobvious under section 103 if the independent claims from which they depend are nonobvious.” *In re Fine*, 837 F.2d 1071, 1076 (Fed. Cir. 1988).

A. Claim 3.

Petitioner also fails to meet the standard required to invalidate Claim 3 on this ground. Specifically, for claim 3, Petitioner lacks documentary support for its assertions that:

In the event the ***Board determines that anticipation of Claim 3 requires storing the set of operational parameters in a storage device*** of the same device performing the monitoring and detection operations, Petitioner notes that it would have been obvious to perform Keith’s storing the cost of the charging process and detecting an interruption with respect to the cost of the charging process at the same device (e.g., at the vehicle charge computer 72 or the charge station computer 34).

(Petition, at p. 96 (emphasis added in bold)).

This argument is problematic, not only because it confuses the grounds under which Claim 3 is challenged (as Claim 3 was not challenged under Keith’s anticipation-based ground in the Petition (*See* Petition, at p. 4)), but also because it lacks intrinsic and extrinsic evidence. Moreover, Petitioner’s suggestion that “[a] POSA would have understood displaying these operational parameters as requiring the storage thereof, or would have obviously⁸ implemented such a technique” (*Id.* at pp. 96-97) lacks substantiation, reducing it to merely attorney argument, which should be discounted.

B. Claim 8.

Similarly, for independent Claim 8, Petitioner provides no documentary or evidentiary support for its assertion that:

A POSA would have understood the computer programs of Keith as including various instructions corresponding to the functionality of the programs. Moreover, to allow for the execution of these instructions, storage would have been a necessary prerequisite.

(Petition, at p. 97).

Furthermore, the expert declaration argues that a POSA would have recognized the added features of Claim 8 as consistent across both Keith and the ’391 Patent, and as common knowledge. (*See* EX1009, at ¶ 257). However, since

⁸ Petitioner’s Keith-based anticipation ground specifically challenges the validity of Claims 1, 2, 4-9, 11-16, and 18-20. (Petition, at p. 4).

this is not included in the Petition, it represents an improper incorporation by reference of arguments, and should be disregarded when evaluating Claim 8 under this Ground. (See Section VI, *supra*).

C. Claim 15.

Lastly, akin to Claim 8, when discussing Claim 15, Petitioner fails to provide documentary or evidentiary backing for its claim that:

A POSA would have been motivated by these teachings to utilize the contacts as a bus system (or in conjunction with a bus system), the memory as a memory including computer usable program code, and the computers as a processing unit.

(Petition, at p. 98).

Additionally, arguments regarding the consistency of the features in Keith and the '391 Patent being common knowledge are only presented in the expert declaration. (See EX1009, at ¶ 261). Thus, these arguments constitute an improper incorporation by reference into the Petition that should not be considered.

D. Petitioner Failed to Provide the Required Motivation to Combine and Reasonable Expectation of Success for This Ground.

Mirroring the issues presented in Ground 1 (See Section VII, *supra*), Ground 5 similarly fails to adequately provide a motivation to combine the teachings of Keith, specifically addressed for claim 15 (Petition, at p. 98). Furthermore, Petitioner does not present any arguments concerning a reasonable expectation of success

throughout the discussion of this ground (*See generally id.* at pp. 95-99). Due to these deficiencies, the Board should deny Ground 5.

XII. GROUND 6: KEITH IN VIEW OF NOR DOES NOT RENDER THE CHALLENGED CLAIMS OBVIOUS

Keith and Nor do not meet the limitations of dependent claims 6 and 13, primarily because these claims depend from independent claim 1 and 8, which have not been challenged as obvious under this combination of references (*See* Section XI, *supra*). This is consistent with the precedent set by *In re Fine*, where dependent claims were found non-obvious if the independent claims from which they depend were not challenged. *See* 837 F.2d at 1076.

Similar to Grounds 2 and 3 (*See* Sections VIII and IX, *supra*), Petitioner recognizes that both Keith and Nor resolved the same problem: “ensuring that an electric vehicle charging process is executed safely.” (Petition, at p. 99). Yet, Petitioner only claims that a POSA would have “immediately recognized” “synergies” between “Keith’s express instructions and Nor’s teachings,” without specifying these synergies or providing evidence to support how a POSA would find them apparent. (*Id.* at p. 100).

Furthermore, Petitioner does not argue that Keith’s primary embodiment, which discusses “an arrangement in which communications come before charging operations,” is inferior to the data communication means disclosed in Nor. (Petition, at p. 100). Instead, Petitioner suggests that a POSA would see “various other

implementation possibilities” and might “explore different options” or “consult . . . [Nor] to learn more about other ways to implement Keith’s communications and exchanges.” (*Id.*) These basic rationales—suggesting compatibility, analogous situations, or mere possibilities for combination—are not sufficient motivations to combine references. *See Personal Web Techs., LLC v. Apple*, 848 F.3d 987, 993 (Fed. Cir. 2017); *see also Johns Manville Corp. v. Knauf Insulation, Inc.*, IPR2018-00827, Paper 9, at p. 10 (PTAB Oct. 16, 2018). Suggesting that it might be obvious to explore or learn about implementing elements from a primary reference lacks the necessary depth and specificity to meet established criteria for motivation to combine.

Additionally, Petitioner presents arguments about the motivation to combine Keith and Nor that are found only in its expert’s declaration. (*See* EX1009, at ¶¶ 269-70). Considering such arguments, which are absent from the Petition, constitutes an improper incorporation by reference (*See* Section VI, *supra*), and thus, should not be considered valid grounds for combining the references.

Petitioner also engages in hindsight to justify the combinations of Keith with Nor. While identifying a problem in the prior art can underpin a motivation to combine references, Petitioner must demonstrate that the alleged “problem was known in the art or that [Petitioner’s] formulation of the problem was derived

directly from the prior art rather than the challenged claims.” *Purdue Pharma L.P. v. Depomed, Inc.*, 643 F.App’x 960, 966 (Fed. Cir. 2016).

Petitioner attempts to frame the problem addressed in the prior art and the ’391 Patent as “ensuring that an electric vehicle charged process is executed safely.” (Petition, at p. 99). However, this broad characterization oversimplifies the specific safety concerns each reference addresses regarding electric vehicle charging. The ’391 Patent focuses on “the health and safety of the charging process” (EX1001, at 9:9-10), while Keith emphasizes the general safety of electric vehicle operators at charging stations, and not specifically the charging process itself. (EX1005, at 2:10-14 (“Objects of the invention include charging of electric vehicle batteries for the general public including having stations readily available to all types of vehicles, ease of use by the operator, **safety for operators....**”) (emphasis added)). Nor, according to Petitioner’s references, does not focus on safety, and no additional evidence is provided that this safety issue was recognized in the prior art or directly derived from Keith and Nor. (See Petition, at pp. 99-103). Consequently, Petitioner’s approach reflects hindsight bias in proposing the combination of Keith and Nor.

XIII. DISCRETIONARY DENIAL UNDER § 314(a) IS APPROPRIATE UNDER THE *FINTIV* FACTORS

The *Fintiv* factors guide “whether efficiency, fairness, and the merits support the exercise of authority to deny institution in view of an earlier trial date in the parallel proceeding.” *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11, at pp. 5-6

(PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”). These factors require “a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review,” acknowledging the potential “overlap among these factors” and the relevance of certain facts to more than one factor. *Id.* at 6. No single factor is determinative. *Apcon, Inc. v. Gigamon Inc.*, IPR2020-01579, Paper 9, at p. 26 (PTAB Mar. 16, 2021).

The Board must first assess if the *Fintiv* factors favor denying institution; if so, it then determines if the Petition presents compelling merits. *CommScope Techs. LLC v. Dali Wireless, Inc.*, IPR2022-01242, Paper 23, at p. 4 (PTAB Feb. 27, 2023) (precedential).

A. *Fintiv* Factor 1: Likelihood of a Stay.

For factor 1, the likelihood of a stay, there is currently no stay in effect contrary to Petitioner’s assertions, nor is one pending. *Fintiv* cautions against speculating whether a district court would grant a stay if requested. *Samsung Electronics Co., Ltd. v. Mojo Mobility Inc.*, IPR2023-01093, Paper 11, at p. 12 (PTAB Jan. 8, 2024) (discussing *Fintiv*, Paper 15, at p. 12 (PTAB May 13, 2020) (informative)). This is because courts “grant a stay based on the facts of each specific case.” *Intel Corp. v. VLSI Tech. LLC*, IPR2020-00158, Paper 16, at p. 7 (PTAB May 20, 2020). District courts possess discretion in deciding whether to stay proceedings

when a defendant has filed an IPR petition. *Murata Machinery USA v. Daifuku Co., Ltd.*, 830 F.3d 1357, 1362 (Fed. Cir. 2016); *Cf.* 35 U.S.C. § 315(a)(2).

Petitioner did not disclose that the parallel district court action remains unstayed,⁹ with no motion to stay either pending or previously filed. (See EX2001 (Parallel District Court Litigation Docket)). This contradicts the assertions in the Petition. (See Petition, at p. 103).

Given the specific circumstance of the parallel district court litigation, particularly the absence of consideration for a motion to stay, this factor is neutral at worst. See *Cisco Sys, Inc. v. Oyster Optics, LLC*, IPR2021-00238, Paper 10, at p. 11 (PTAB June 1, 2021).

B. Fintiv Factor 2: Proximity of the Court’s Trial Date to the Board’s Projected Deadline for a Final Written Decision.

For factor 2, which concerns the proximity of the district court’s trial date to the Board’s projected deadline for a Final Written Decision, the Board typically refrains from “speculat[ing] about Petitioner’s motion to transfer the proceeding . . .

⁹ The parties previously agreed to stay “all merits-based fact discovery . . . until resolution of Defendant’s Motion to Transfer” (*Graphite Charging Company LLC v. Tesla, Inc.*, 5:24-cv-02717-VKD, Dkt. No. 36, ¶ 5.f (W.D. Tex. Dec. 6, 2023)). Because the District Court resolved the Motion to Transfer on April 25, 2024, (see *id.* at Dkt. No. 61), the stay on merits-based discovery is resolved.

and any impact that may have on the trial date, should the motion be granted.” *GlobalFoundries Inc. v. UNM Rainforest Innovations*, IPR2020-00984, Paper 11, at p. 15 (PTAB Dec. 9, 2020) (finding *Fintiv* factor 2 weighed in favor of exercising discretion to deny institution of the petition, and instituting the petition for other reasons).

Although Petitioner suggests that the expected trial date in the parallel district court litigation will occur well after the Board’s Final Written Decision, primarily because merits-based discovery was stayed when the Petition was filed (*see* Petition at p. 103), the recent resolution of the Motion to Transfer and the court’s recent actions in the parallel litigation suggest otherwise. Specifically, the court has required the parties to file their joint Case Management Statement on June 18, 2024, and “advanced” the Initial Case Management Conference to June 25, 2024. (EX2001, Dkt. No. 65). The parties must also meet and confer to discuss their initial disclosures and discovery plan by July 16, 2024, and make their initial disclosures by July 30, 2024. (*Id.*, Dkt. No. 64, at p. 1 (noting that “Counsel must comply with the dates listed below.”)).¹⁰ Thus, this factor weighs against institution.

C. *Fintiv* Factor 3: Investment in the Parallel Proceeding by the Court and the Parties.

¹⁰ Out of an abundance of caution, Patent Owner attaches Dkt. No. 64 of the parallel litigation as a separate exhibit EX2002. (EX2002, at p. 1).

This factor evaluates the extent of the court and parties' investment in the parallel proceeding to assess whether "the ... proceeding is more advanced . . . and instituting would lead to duplicative costs." *Fintiv*, at pp. 19-20. The critical element here is the actual investment made by the parties in the district court litigation at the time of IPR institution decision. See *Verizon Bus. Network Servs. LLC v. Huawei Techs. Co.*, IPR2020-01292, Paper 13, at pp. 14-15 (PTAB Jan. 25, 2021); *Fintiv*, at pp. 5-6. As discussed above, the motion to transfer has been resolved, and the court in the parallel litigation has required the parties to comply with several discovery deadlines in June and July 2024. Notably, these discovery deadlines are before the Board's August 9, 2024 institution decision deadline. See 35 U.S.C. § 314(b)(1) ("The Director shall determine whether to institute an inter partes review . . . within three months after receiving a preliminary response to the petition."). Thus, because substantive merits-based discovery will have occurred before the institution decision, this factor weighs against institution.

D. *Fintiv* Factor 4: Overlap Between the Issues Raised in the Petition and the Parallel Proceeding.

Factor 4 significantly influences the decision to deny institution of an IPR when there is substantial overlap between the issues in the IPR petition and those in the parallel litigation. In this case, all claims asserted in the parallel litigation are also contested here in the IPR. (See *generally* Petition); *Fintiv*, at p. 13.

Petitioner’s assertion that “the Final Written Decision here will **likely** trigger estoppel **before trial**” (Petition, at p. 104 (emphasis added)) also fails to mitigate any concern of potentially conflicting decisions and duplicative efforts between the district court and the Board, at least because it is not a clear stipulation “that, **if IPR is instituted**, [Petitioner] will not pursue in the District Court Litigation any ground raised or that could have been reasonably raised in an IPR.” *Sotera Wireless, Inc. v. Masimo Corp.*, IPR2020-01019, Paper 12, at p. 18 (PTAB Dec. 1, 2020) (precedential as to § II.A) (emphasis added); *Sand Revolution II, LLC v. Continental Intermodal Group-Trucking LLC*, IPR2019-01393, Paper 24, at pp. 11-12 (PTAB June 16, 2020) (informative).

Indeed, because the estoppel statute only precludes parties from raising such grounds “[w]hen IPR proceedings **result in a final written decision**....” *Cal. Inst. Of Tech. v. Broadcom Ltd.*, 25 F.4th 976, 989 (Fed. Cir. 2022) (discussing 35 U.S.C. § 315(e)(2)) (emphasis added), Petitioner’s assertion does not prevent Petitioner from asserting these same invalidity grounds in the parallel litigation through its invalidity contentions or expert discovery **before** the Board issues a Final Written Decision. The lack of a clear stipulation also leaves open the possibility that Petitioner may use different printed publications and system combinations not asserted in the Petition, thus not aligning with the exact estoppel provisions of 35 U.S.C. § 315(e). Consequently, instituting an IPR under these circumstances would

not provide a quicker and more cost-effective alternative to litigation, tipping this factor against institution. *Fintiv*, at p. 13.

E. Fintiv Factor 5: The Parties in Both Proceedings Are Identical.

The fifth *Fintiv* factor, which considers whether the parties in the IPR and the parallel litigation are identical, significantly supports denial of institution. See *Samsung Electronics*, IPR2023-01093, Paper 11, at p. 18; *Intel Corp. v. VLSI Tech. LLC*, IPR2020-00112, Paper 15, at p. 13 (PTAB May 19, 2020). This factor is strongly affirmed when the same parties are involved in both proceedings, as consistent rulings have highlighted. *Id.*; *Fintiv*, at p. 15 (“Because the petitioner and the defendant in the parallel proceeding are the same party, this factor weighs in favor of discretionary denial.”). In this case, the identity of parties in both the IPR and district court litigation underscores a strong preference for denial of institution. Petitioner’s reliance on the *Amazon* case for this factor is unpersuasive, as mentioned in the Petition at p. 104, due to its lack of precedential or informative status.

F. Fintiv Factor 6: Other Circumstances Impacting the Board’s Exercise of Discretion, Including the Merits.

The sixth *Fintiv* factor involves “a balanced assessment of all relevant circumstances in the case, including the merits,” to determine “whether to exercise discretion to deny institution under § 314(a).” *Verizon*, IPR2020-01292, Paper 13, at pp. 17-18 (internal citation omitted). The merits of the case must not only be strong from a subjective standpoint but also objectively compelling enough to

counterbalance the other *Finitiv* factors. See *Samsung Electronics Co., Ltd. v. Ancora Technologies, Inc.*, IPR2020-01184, Paper 11, at p. 24 (PTAB Jan. 5, 2021).

As previously detailed, Patent Owner has outlined significant shortcomings across all six grounds of Petitioner’s arguments, evidencing that the Petition lacks sufficient merit to proceed. These identified deficiencies reinforce the view that the merits of the Petition do not reach the threshold of being “compelling,” which starkly contrasts with Petitioner’s assertions. (Petition, at p. 104). Moreover, “[i]f the merits of the grounds raised in the petition are a closer call, then that fact has favored denying institution when other factors favor[ing] denial are present.” *Fintiv*, at p. 15. Given that four of the first five *Fintiv* factors actively support denial and the remaining factor is at worst neutral, this factor further endorses a decision against institution. *Id.*, at p. 6.

XIV. CONCLUSION

For the reasons detailed above, Patent Owner respectfully requests that the Board deny this Petition.

Respectfully submitted,

Dated: May 9, 2024

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CERTIFICATE OF TYPE-VOLUME LIMITATIONS
UNDER 37 C.F.R. § 42.24

Pursuant to 37 C.F.R. § 42.24(d), Counsel for Patent Owner Graphite Charging Company, LLC hereby certifies that the foregoing **PATENT OWNER GRAPHITE CHARGING COMPANY, LLC'S PRELIMINARY RESPONSE** complies with the type-volume limitation of 37 C.F.R. § 42.24(b)(1). According to Microsoft Office Word 2016's word count, this Preliminary Response contains approximately 10,780 (up to 14,000) words, exclusive of the parts exempted as provided in 37 C.F.R. § 42.24(a).

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CERTIFICATE OF SERVICE
UNDER 37 C.F.R. § 42.6(e)(4)

The undersigned hereby certifies that a copy of the foregoing Patent Owner's Preliminary Response was served on May 9, 2024, by filing this document through the Patent Trial and Appeal Board End to End System as well as delivering a copy via electronic mail upon the following email addresses for the attorneys of record for Petitioner: Tesla-Graphite391-IPR@morganlewis.com and
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