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ChargePoint, Inc Comments

Comments attached

Additional submitted attachment is included below.

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May 15, 2024

Dustin Schell
California Energy Commission
Docket No. 22-EVI-04
715 P Street
Sacramento, CA 95814

Dear Mr. Schell,

On April 9, 2024, the California Energy Commission (CEC) published the second draft staff report of "Tracking and Improving Reliability of California's Electric Vehicle Chargers: Regulations for Improved Electric Vehicle Charger Recordkeeping and Reporting, Reliability, and Data Sharing." On April 30, 2024, CEC Staff presented the proposed regulations in a public workshop ("April 30 workshop"), including changes since the first draft staff report was published on September 26, 2023.

ChargePoint has reviewed the second draft staff report and the public workshop materials. We appreciate the CEC's consideration of these comments as the CEC prepares to finalize its multi-year effort to establish reliability regulations for EV charging stations in California.

I. Summary of ChargePoint's Comments

ChargePoint is supportive of the CEC's efforts to improve the reliability of chargers. Our goal with these comments is to ensure the regulations are designed to accomplish what we believe are shared goals— to ensure the success of state funded programs to deploy chargers, move the industry forward in a meaningful way, and most importantly, improve the driver experience. To that end, ChargePoint recognizes and is supportive of several changes in the second draft staff report, including:

1. The designation of charger serial numbers as confidential;
2. The designation of private charger location data as confidential;
3. Additional clarity on the aggregation of confidential charger data before it may be publicly shared;
4. Greater clarity on the open charge point protocol (OCPP) 2.0.1 operative status data of interest; and
5. The definition of successful charge attempt rate (SCAR) metric.

We wish to work in partnership with the CEC to continue to dedicate resources to reliability and to increase transparency to increase driver confidence in the network. While data is certainly a helpful tool to improve station reliability, data reporting and recordkeeping alone

is not a remedy for the reliability challenges identified by the CEC. With this in mind, ChargePoint offers several recommendations for the final regulations:

1. The CEC should consider different charger deployment strategies as it ranks providers.
2. The CEC should not collect utilization data.
3. The definition of successful charge attempt as used in the SCAR metric should be amended to align with ChargeX.
4. Funding entities should be required to identify which state funded stations are subject to reporting requirements.
5. The use of OCPP status messages to verify uptime reporting has significant limitations. Instead of near real-time reporting via API, data reporting entities should hold these records and provide them to the CEC as requested.
6. The CEC should provide adequate time for technical input and implementation for the development of APIs to transmit OCPP data.
7. Additional clarity on what is considered sufficient aggregation is needed.
8. If providers are required to share real-time charger data with third parties via API, CEC should allow providers with flexibility to limit cost of compliance and protect commercially sensitive data.

II. About ChargePoint

Since 2007, ChargePoint has been committed to making it easy for businesses and drivers to go electric with one of the largest electric vehicle (EV) charging networks and a comprehensive portfolio of charging solutions. ChargePoint's cloud subscription platform and software defined charging hardware is designed internally and includes options for every charging scenario from home and multifamily to workplace, parking, hospitality, retail, corridor, and fleets of all kinds. ChargePoint's primary business model is to sell our integrated charging software and hardware solutions directly to site hosts and provide services that enable them to provide services that align with their specific needs.

III. Comments

1. The biennial report on charger reliability should consider different EV charger deployment strategies for apples-to-apples comparisons.

Assembly Bill (AB) 2061 directs the CEC to assess the reliability of publicly funded chargers on a biennial basis. The second draft staff report indicates that the CEC intends in its biennial report to rank charging networks based on reliability and to use these rankings to help state agencies inform funding decisions. ChargePoint understands these rankings as a tool to ensure accountability from the industry and to incentivize strong performance. However, the April 30 workshop indicates that the CEC Staff is still considering how to present the information collected from the reliability recordkeeping and reporting effort in the biennial report for public review and review by funding entities.

For these rankings to be meaningful for funding entities and fair to the industry, the CEC must take care to ensure apples-to-apples comparisons across different business models in the charging ecosystem. There is a wide variety of deployment strategies in the market for EV charging services. Some companies build and manufacture hardware, some companies design software and operate networks, and some provide an integrated hardware-software solution. Narrowing in on the companies that operate networks, some directly own and operate stations, whereas others, such as ChargePoint, sell services for other entities (including traditional fuel providers, workplaces, and retail areas) to offer charging services.

Considering the diversity of business models and charger deployment strategies and for the purposes of holding entities accountable, we encourage the CEC consider how networks with different business models should be compared in the context of using reliability metrics to assess future funding decisions. Ultimately, grant recipients are responsible for station operations and hardware and software providers have limitations on actions they can take related to reliability without the involvement of funding recipients.

ChargePoint recommends that CEC acknowledge and present information taking into account different charger deployment strategies and business models.

2. <u>The CEC should refrain from collecting utilization data.</u>

ChargePoint recognizes that the CEC is interested in utilization data to improve its AB2127 infrastructure needs modeling and to appropriately allocate funding resources. In comments responding to the first draft staff report, ChargePoint requested that utilization data, if collected, be protected with confidentiality provisions. We appreciate that confidentiality provisions for private chargers, such as those serving residential and fleet customers, were strengthened in the second draft report in response to our feedback. However, given the general expansion of the data requested by the second draft, we urge the CEC to eliminate § 3123(b)(2)(K) from the regulation.

a. Reporting utilization data will increase the cost of compliance.

The utilization data requested by the CEC (average hours per day charger drew power, average hours per day charger was connected to EV, and average kWh dispensed per day) are not data requested by the National Electric Vehicle Infrastructure (NEVI) Program, nor are they data that network providers already calculate and average in the manner requested. The requirement to report utilization data increases the cost of compliance with the regulation. Given that the CEC generally expanded the scope of data reporting and sharing requirements in the second draft staff report beyond the scope of the first draft staff report[1],

[1] For example, § 3130 requires networks to share real-time charger location and availability data free of charge to third-party software developers via API.

it is appropriate to reassess whether the marginal benefit of utilization data is worth the added cost.

b. Utilization data is commercially sensitive.

Utilization data is used to inform key business decisions related to charger operations, such as whether or when to add additional chargers to meet customer demand. Per the regulation, all chargers in California will be expected to report utilization, regardless of whether they received public funding. ChargePoint's customers, such as retail areas, convenience fuel operators, and even workplaces, are rightfully protective of such competitively sensitive information and express reticence in sharing it for any reason, to the extent that some site hosts may reconsider investing in charging stations if it is a condition to operating charging infrastructure in California. Considering the sensitivity, the CEC should avoid collecting utilization data based on the principle of data minimization–data collected should be limited to what is necessary and directly relevant to the CEC's end goal to improve its understanding of charger deployment across the state and more efficiently allocate incentive opportunities to where they are most needed.

c. Inventory data reporting should be sufficient to fill the gap in AB2127 needs assessment.

The collection of inventory data for all chargers in California is more directly relevant to the CEC's goal of improving its understanding of charger needs across the state. ChargePoint has provided this information on a voluntary basis for many years. We welcome the CEC to use inventory data to improve its visibility into the number of chargers in California, so long as identifying information for private chargers serving residential buildings and fleets is generally held as a confidential.

3. <u>The definition for a successful session as used in the successful charge attempt rate (SCAR) metric should be revised to align with the work of ChargeX.</u>

a. The SCAR metric will help improve the CEC's understanding of reliability.

Since the NEVI Program set the standard for 97% uptime, uptime has become synonymous with the concept of EV charger reliability. However, uptime is an incomplete metric in the sense that it is measures reliability from an operator's perspective; it is not a metric that reflects the driver experience. For example, 97% uptime means little to a driver if a station does not deliver a charge in the moment the driver needs it.

To provide a more holistic picture of charger reliability, ChargePoint supports the addition of the SCAR metric, as it is a metric that will provides greater visibility into charger reliability beyond what uptime can provide. It is extremely valuable to establish a data-driven baseline so that the industry can demonstrate improvement and increase driver confidence in the charging network.

b. The definition of a successful charge does not accurately measure driver experience.

CEC Staff communicated at the April 30 Workshop that the intent behind SCAR is to assess reliability from a drivers' perspective. However, the CEC's proposed definition for a successful session as one lasting for at least five minutes is arbitrary and is not necessarily correlated to a good driver experience. At the April 30 workshop, CEC Staff communicated that five minutes was selected as the bar for a successful charging session based on data that shows that sessions are more likely to succeed if they exceed five minutes. While this kind of statistical inference provides interesting insight, it is far from sufficient as a definition for a successful attempt that should be codified in this regulation.

There are many cases that, under the proposed definition, would erroneously be counted as failed sessions, including but not limited to:

- Driver taps to authenticate a session but gets distracted before plugging in to start the session; the session times out and the driver has to tap again;
- Driver taps to authenticate and their payment method has insufficient funds.
- Driver attempts to use a station that has access restrictions applied.

In other words, simple session failures caused by user error will erroneously be counted as failures of the station and/or network. In the case of many of such "failures", the driver may not even register the time-out as a failure. In the aggregate and considering the many cases that lead to sessions registering as less than five minutes, the proposed definition of a successful charge is likely to portray an inaccurately negative picture of charge success.

We understand the CEC's effort to adopt a metric that more accurately reflects the driver experience and agree that industry consensus on customer-centric metrics is needed to optimize for fast, seamless, and intuitive charging experiences. However, it is important not to conflate metrics that accurately measure customer experience with metrics that are appropriate to assess and rank networks based on performance. Because it is the intention of the CEC to use the SCAR metric to rank charger performance by network and there is an expectation for providers to achieve 90% success, it is appropriate to focus the definition of a successful charger to factors that are within control of networks for the purpose of accountability, transparency, and differentiation across the industry.

A more appropriate definition for a successful charging session is a session that begins energy delivery and does not have any associated faults or errors that indicate the session ended prematurely.

c. ChargeX is expected to publish a definition for successful charge attempt, which has been shaped by stakeholder input and will broadly support improved customer experience.

ChargePoint is one of dozens of participants in the National Charging Experience Consortium ("ChargeX"), an effort established by the Joint Office of Energy and Transportation to improve customer experience and station reliability. ChargeX is expected to publish a report defining key performance indicators (KPIs) for the industry to accelerate the buildout of affordable, convenient, equitable, reliable, and safe charging. Though the ChargeX report may not yet publicly available, ChargePoint believes that "successful charge attempt" will be defined in the report and warrants review and adoption by the CEC for the purposes of this regulation.

Because many industry actors will be working to vet and possibly implement ChargeX KPIs imminently, we believe it would be shortsighted and a missed opportunity for the CEC to establish a different definition of successful metric. Not only would competing definitions of a successful charge attempt duplicate efforts, but it would also create a confusing environment where "charge success" may be reported differently depending on the audience. There is significant value in aligning the CEC regulation with a vetted definition of success that has received input from standards-making bodies and consumer advocates.

The other advantage of aligning the CEC's definition of a successful charge with ChargeX is that it will encourage broader industry adoption of the ChargeX KPIs. There are many other KPIs that are not ready or possible today but, if further vetted and adopted, will serve to build upon understanding of reliability and driver experience broadly. While ChargePoint is actively assessing the technical feasibility of implementing various ChargeX KPIs as a member of the consortium, the industry needs time to review and execute the KPIs through an iterative process. The KPIs generally should not be considered as "finished" or "ready to go" for the purposes of adoption into this reliability recordkeeping and reporting rulemaking. Nonetheless, we strongly encourage the CEC to review the ChargeX KPI report when it is made available and integrate the definition of a successful charge for the SCAR metric.

d. Should the CEC retain its proposed definition for charge success, there are additional exceptions to adopt.

At a minimum, the CEC should designate additional values for StoppedReason within the TransactionEventRequest status that allow a session to be considered successful. These include:

- EnergyLimitReached: This is an externally set limit that ends the session when the limit is reached.
- LocalOutOfCredit: This is used for the end of a pre-paid session.
- MasterPass: This allows qualified personnel, such as Emergency Services, to stop an existing session and then start their own charging session in an emergency.
- Remote: This indicates a charging session was intentionally ended by a user via App or Payment Terminal.

4. **Funding entities should identify which state funded stations are subject to reporting requirements using EVSE ID.**

Several reporting requirements apply to publicly funded chargers installed after January 1, 2024, which includes both CEC-funded grant programs and ratepayer funded programs. This presents a logistical challenge for network operators that do not own/operate stations and thus do not directly apply for and receive state funding, such as ChargePoint. Many incentive programs tend to operate close to the market, for example, delivering incentives directly to station owners for make-ready infrastructure. As a result, responsible reporting entities as defined in this regulation (i.e., charging networks) are unlikely to have reliable records of which stations were installed with a state grant or incentive. Since the regulations effectively apply retroactively to stations installed after January 1, 2024, reporting entities will need notice from funding entities (such as the investor-owned utility or the community choice aggregation) to identify and report for stations subject to the reporting requirements.

A simple way to resolve this problem is to require funding entities to provide networks with a list of chargers that meet the criteria for reporting. We believe a list of EVSE IDs is a logical way for funding entities to identify for networks which stations are required to report. Network operators should not be held liable for failing to report for all applicable publicly funded stations if such lists are not made available to them.

ChargePoint recommends the following language (or similar) be added to § 3129:

(d) All funding entities must, on a quarterly basis, prepare a list of publicly funded charging stations installed after January 1, 2024, to which the funding entity has dispensed public funds. This list should identify publicly funded charging stations using charger ID and include no confidential or identifying information. Funding entities must provide the list by email to the recordkeeping and reporting agent designated as responsible for all the publicly-funded stations on the list, per § 3122. Failure by a funding entity to identify any publicly-funded stations on the list absolves the recordkeeping and reporting agent of its obligation to report for those stations.

5. **The use of OCPP status messages to verify uptime reporting has significant limitations.**

In the first draft staff report, the CEC established an expectation for networks to share and retain records of OCPP operative status data, including HeartbeatResponse and BootNotificationResponse. The second draft staff report clarifies that the expectation is for such OCPP 2.0.1 messages must be transmitted to the CEC within 60 minutes of generation. At the April 30 workshop, CEC Staff indicated that the CEC is interested in collecting OCPP status data for the purpose of a verification tool for uptime reporting. In other words, at some point in the future, the CEC may elect to use OCPP-based records to calculate uptime and

compare it to the reported values submitted. Further, it is our understanding that the CEC expects providers to rely primarily on OCPP status data to calculate and report uptime.

ChargePoint appreciates the clarity provided by CEC Staff regarding how uptime is to be defined and the purpose of collecting OCPP data. However, there are several limitations with this approach which the CEC should consider.

a. Uptime calculations may consider non-OCPP-based data.

§ 3124(c)(1) defines the duration of a downtime event as the longest of several periods, including "The time between the earliest record that a charger is not capable of successfully dispensing electricity or otherwise not functioning as designed and the time it is available to deliver a charge."

In other words, data available to a network operator outside of OCPP status messages may inform the period of downtime that must be considered in an uptime calculation. The inclusion of this language is important because ChargePoint is working to improve its clarity into uptime monitoring by drawing information from other data layers beyond OCPP status messages. This is an effort ChargePoint is pursuing to improve uptime reporting directly to our customers, who increasingly expect demonstration that chargers are meeting expectations for uptime. As the industry becomes more sophisticated in its ability to assess causes of downtime that are not remotely detectable via OCPP, OCPP statuses will become increasingly less reliable method to verify uptime reports. The CEC should be aware of the limitations of using OCPP status reporting for the purposes of verification.

Further, there may be differences between uptime assessed by the CEC for the purpose of verification and the numbers provided by providers. Any differences that occur may reasonably come from other non-OCPP data fields that confirmed a station was up or down. If a verification indicates there is a discrepancy, ChargePoint urges the CEC to work collaboratively with providers to determine its cause in good faith.

b. Requiring providers to both report uptime and submit OCPP status to confirm uptime is a duplication of effort.

This regulation presents a substantial increase in the amount of data that network providers must transmit to the CEC. To the extent that the marginal cost of complying with these regulations will be moderated by comparable requirements in the NEVI Program, NEVI does not require near real-time OCPP status reporting, and ChargePoint is not aware of any other incentive program with similar requirements. For this reason, it is appropriate to consider whether data sharing truly will deliver benefits to EV drivers that outweigh the costs to implement.

Both direct uptime reporting and OCPP status reporting get at the same metric – network uptime. For this reason, there seems to be a duplication of effort for the entities which must

report uptime and set up systems to transmit OCPP status to verify uptime. While we understand the CEC's desire to keep industry honest with the potential for verification, we believe there may be more cost effective ways to achieve the same end goal.

c. The CEC should collect OCPP operative status data only as needed.

If the CEC intends to use OCPP status data as an auditing mechanism on a targeted basis to verify reported uptime values, it would be more reasonable to require networks to keep records of OCPP statuses and provide them to the CEC upon request, rather than transmit them via API. This concept is already allowed for chargers installed in 2024-2025 by § 3125(c)(1) and should be considered as a replacement for near real-time OCPP status transfer: *The Executive Director may electronically request (sent to the most recent email address filed pursuant to section 3123(b)(1)(D) of this Article) that a recordkeeping and reporting agent provide the Commission with copies of the records retained pursuant to subsection (a) of this section. The charging network provider shall submit the requested records to the Commission within 21 days of the date of the request.*

6. <u>The CEC should provide adequate time for technical input and implementation for the development of APIs to transmit OCPP status data.</u>

a. The CEC should clarify an inconsistency in the regulation.

Notwithstanding to the question of the value and utility of collecting and reporting OCPP data for verification, ChargePoint intends to work collaboratively with the CEC to share such data as efficiently as possible.

ChargePoint's understanding is that the CEC intends to require networked chargers installed after January 1, 2024, to collect, retain for two years, and transmit certain OCPP 2.0.1 protocol units on a near real-time basis (within 60 minutes of generation.) However, there is an inconsistency between the narrative body of the second draft staff report and the rule language: Page 31 says: *Networked chargers installed on or after January 1, 2026, are required to report <u>every 15 minutes</u> operative status and certain protocol data units using OCPP 2.0.1 or a subsequent version of OCPP.*

b. As the CEC establishes an API for automatic transmission, industry would benefit from ample time to review and provide technical input.

The CEC designates the charging network provider as the responsible recordkeeping and reporting agents for all networked chargers. Enrolled charging network providers are entities that agree to serve as recordkeeping and reporting agents using an API data reporting tool.

It is ChargePoint's intention to qualify as an enrolled charging network provider. Automatic data transmission via API (as opposed to quarterly manual reporting) is a beneficial option

as it will allow the network provider to minimize the cost of compliance, as manual reports compiled on a quarterly basis are time- and cost-intensive.

Enrolled charging network providers must complete an application to the CEC and meet certain technical requirements to submit data through the CEC's API portal. It would be helpful for industry to provide technical input on the API to minimize costs to industry and ensure smooth implementation. Though we recognize the intent to finalize the regulations as quickly as possible, ChargePoint requests at least 30 days of technical review once the CEC has a draft application and technical framework for its API. We believe generous time to provide technical input on the front end of the process will streamline enrollment on the back end of the process.

c. The CEC must ensure adequate time for the responsible recordkeeping and reporting entities to become enrolled charging network providers.

There is uncertainty regarding the date the regulation will go into effect, which means there is uncertainty for when enrolled charging network providers will be able to establish API connection with the CEC and be expected to submit first reports.

If for any reason the availability of the API is delayed to the extent that responsible reporting entities are not able to qualify as enrolled charging network providers, charging network providers should not be held accountable for failure to report data or be forced to submit the data on a manual basis. Not only would a last-minute scramble to submit data manually be challenging due to the size of the dataset, but it would also disrupt the engineering workflow that charging networks rely on to plan and resource projects adequately. We request that, in the scenario that there is a delay which makes it infeasible for providers to qualify as enrolled providers before the first reports are due, there is flexibility to allow providers to enroll and submit the required data at a reasonably determined later date.

ChargePoint suggests the following language (or similar) to be added to § 3122(c)(2):

<u>(C) If recordkeeping and reporting agents are not able to qualify as enrolled charging network providers due to delay in the availability of the enrollment process, the CEC may use its discretion to waive the responsibility for all recordkeeping and reporting agents to submit data for the first expected reporting period.</u>

7. **<u>Additional clarity on what is considered sufficient aggregation is needed.</u>**

§ 2507(f)(1)(D) determines that confidential data may be disclosed only if it sufficiently aggregated in the following manner: (1) data aggregated at the county level by year and customer sectors; (2) To such a level that the disclosure includes the data from three or more entities by year and customer sectors. ChargePoint seeks to clarify two matters:

- The term "customer sector" is not defined. It is unclear whether the CEC intends for "customer sector" to be synonymous with the "primary use" associated with quarterly inventory reporting in § 3123(b)(2)(J).
- It is unclear whether both conditions (1) and (2) in § 2507(f)(1)(D) must be met for confidential data to be considered sufficiently aggregated. ChargePoint recommends that both conditions be met as a condition of aggregating data before it is released publicly.

8. **If charging network providers are required to share real-time charger data with third parties via API, the CEC should clarify charging network providers flexibility to limit cost of compliance & protect commercially sensitive data and apply only to stations installed on or after January 1, 2026.**

    a. **The CEC should allow networks flexibility to use standard API connection to share data.**

One of the biggest changes in the second draft staff report compared to the first draft staff report is that it directs networks to share real-time charger accessibility, availability, and pricing data to third-party software developers via API. The language in § 3130 mirrors requirements established for chargers in the NEVI Program. The report recognizes that sharing such data may have implementation costs, and the CEC finds that the marginal costs will be moderated by the fact that the NEVI program has implemented comparable requirements.

However, the marginal costs of third-party data sharing will only be moderated if providers such as ChargePoint are able to standardize data sharing tools. Our aim is to avoid building several different APIs for every regulatory authority that requests similar data to be made available, and rather, establish a more standard pathway to share data. For example, we are currently reporting most of the EV charging station data to the federal government through open charge point interface (OCPI) to the Alternative Fuels Data Center (AFDC). We are also working with the Joint Office of Energy and Transportation to determine what the optimal API solution for the NEVI Program. We appreciate flexibility in the language to determine the most appropriate data sharing solution.

    b. **The CEC should clarify network providers have the right to dictate the terms and conditions of how data is used.**

Some of the real-time data required to be shared with third parties is commercially sensitive. While ChargePoint understands the intent of § 3130 is to provide this real-time data to EV drivers, it is critical that the data be released in a way where third parties cannot use this data for other business purposes that could commercially harm EV charging companies. How our EV charging station data is conveyed, by whom, and how, is extremely important to not only our business, but our customers as well. As a result, we urge the CEC to add a new section to § 3130 to prevent misuse of commercially sensitive data, to the effect of: (b)

Charging network providers may require third-party software developers to agree to terms and conditions before making data available for their use.

c. Requiring the charging networks to make available data to third parties for historical stations, without meaningful engagement from site host is bad policy.

There are many entities large and small that use their private capital dollars and or a combination of private and public dollars to install charging stations throughout California. Those who have already chosen to install charging stations have done so based on their current interpretation of laws and funding requirements. Forcing charging networks to share data of these stations with anyone who request via API fundamentally changes the relationship and control over data that site host currently have. ChargePoint recommends that the CEC apply this requirement only to stations that are networked, publicly available, and publicly funded and installed after January 1, 2026. Doing so will allow site host to understand how their data will be used and take that into consideration when applying for any funding. Additionally, this will allow time for charging networks to build the technical systems and customer engagements necessary for a smooth transition to meeting this requirement.

d. Third party data sharing will not meaningfully improve the driver experience.

ChargePoint agrees that EV drivers should have access to information about publicly available chargers, such as when and where they can be accessed, and if they are available. As such, ChargePoint has all our relevant EV charging station data available, for free to the public, through our smart phone application, through all our roaming partners' apps, and through reporting our data to the AFDC.

It seems there is a presumption within the second draft staff report that third-party data sharing will inherently improve the driver experience by encouraging the development of more consumer-facing apps. However, the proliferation of more EV charging station apps could lead to additional confusion for EV drivers and a loss of EV charging station customer service, as drivers would be interacting with third party apps and not the EV charging companies' apps or partner apps. ChargePoint believes that charging networks have a key role to play to ensure positive EV driver experiences. To this end, we applaud the CEC's other efforts – such as on interoperability and roaming – as valuable policy efforts where the role of charging networks is uplifted, not sidelined, to lead to enhanced driver experience at charging stations.

Conclusion

Thank you for consideration of these comments. ChargePoint is committed to delivering excellent driver experience at our stations through superior reliability performance. We welcome continued collaboration with the CEC to ensure the buildout of charging infrastructure in California accelerates the transition to electric transportation. Please don't hesitate to reach out with any questions.

Respectfully Submitted,

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