# Protest Decision

| | |
|---|---|
| **Matter of:** | Borgwarner EV Charging Systems |
| **Case No.:** | 2024-201 |
| **Posting Date:** | July 24, 2023 |
| **Contracting Entity:** | South Carolina Department of Education |
| **Solicitation No.:** | 5400025315 |
| **Description:** | Charging Stations for EV Bus Sites |

## DIGEST

Protest dismissed as untimely. The protest by Borgwarner EV Charging Systems (BG) is attached and included by reference. (Attachment 1)

## AUTHORITY

The Chief Procurement Officer (CPO) conducted an administrative review pursuant to S.C. Code Ann. §11-35-4210(4). This decision is based on materials in the procurement file and applicable law and precedents.

## BACKGROUND

| | |
|---|---|
| Solicitation Issued | 05/24/2023 |
| Deadline for receipt of questions | 06/02/2023 |
| Amendment 1 Issued | 06/22/2023 |
| Amendment 2 Issued | 06/27/2023 |
| Deadline for submission of bids | 07/13/2023 |
| Protest Received | 07/07/2023 |

The South Carolina Department of Education (DOE) issued this Best Value Bid to acquire charging stations for electric vehicle (EV) bus sites on May 24, 2023. Potential Offerors were

advised to submit any questions about the solicitation by June 2, 2023. Amendment 1 was issued on June 22, 2023. The Amendment reproduced the solicitation in full making material changes to the specifications, answered potential Offerors' questions, and changed the bid submission date. Amendment 2 was issued on June 27, 2023, making minor changes to the price proposal spreadsheet. BW filed a protest of the solicitation on July 7, 2023, alleging a requirement for simultaneous charging is unduly restrictive.

**DISCUSSION**

This is a protest of the solicitation as provided for in Section 11-35-4210(1)(a) which grants the right to protest the solicitation or amendment within 15 days of issuance:

> (a) A prospective bidder, offeror, contractor, or subcontractor who is aggrieved in connection with a solicitation shall protest to the appropriate chief procurement officer in the manner stated in subsection (2) within fifteen days of the date of issuance of the Invitation For Bids Request for Proposals or other solicitation documents, whichever is applicable, or any amendment to it, if the amendment is at issue. An Invitation for Bids or Requests for Proposals or other solicitation document, not including an amendment to it, is considered to have been issued on the date required notice of the issuance is given in accordance with this code.

(emphasis added)

BW protests that specification 3.1.2 requiring simultaneous charging and rejecting sequential charging is unduly restrictive. This specification first appeared in the original solicitation published on May 24, 2023:

> Must be capable of providing a minimum of two simultaneous charging connection points (charger output divided by 2) Sequential only charging will not be approved

[Solicitation, Page 17]

The specification appears unchanged in a reproduction of the solicitation in Amendment 1 on June 22, 2023, and is not referenced in the questions and answers attached to the amendment. The specification is not referenced in Amendment 2.

In its letter of protest, BW alleges that during the procurement process, it asked DOE to amend the specification:

> **We ask the Department to amend the EV Bus Solicitation to omit the requirement for "simultaneous charging" and remove the sequential charging exclusion….**

In the Appendix attached to the letter of protest, BW adds:

> This data was presented to the Department on June 22, 2023. The Department responded, "we will use these buses to transport students for morning and evening routes, as well as potential routes throughout the day. We cannot wait for sequential charging of buses. Our business needs require the full rate of the charger, while the buses are charging."
>
> On June 23, 2023, Borgwarner requested permission to bid 60kw chargers with single dispensers that would meet the simultaneous requirements. The Department responded, "Our solicitation stands as it is, because it best meets our business needs. Thank you for your interest in doing business with SCDE."

BW's original request for a change to the specification was sent to the procurement officer on June 15, 2023, 22 days after publication of the original solicitation. The last sentence of that email states:

> Based on the data above, please reconsider the sequential as part of you RFP

DOE explained that the email was not received until after the June 2, 2023, deadline for receipt of questions published in the original solicitation, and was taken as information to consider, not a question being asked:

> The email we received about Simultaneous vs Sequential Charging (attached) was taken as information to consider, not as a question being asked. We did not receive a specific question about this until after the Amendment One was published to answer questions that were received timely (attached). Amendment Two was done as a clerical amendment only.

The solicitation cover page included the following advisement:

> QUESTIONS MUST BE RECEIVED BY: 06/2/2023 5:00 PM EST (See "Questions From Offerors" provision)

DOE did not respond to BW's email and there is no indication that BW was ever advised that its question was received after the deadline and would not be considered. It was not until the publication of Amendment 1 on June 22, 2023, with no change to the specification and no mention of BW's request, that BW became aware that its request was denied. On June 22, 2023,

shortly after Amendment 1 was published, BW sent another email to the procurement officer inquiring:

> Can you please let me know why the RFP prefers Simultaneous rather that sequential? Appreciate your help on this matter. Thanks in advance.

The next morning, June 23, 2023, procurement officer responded:

> We will use these buses to transport students for morning and evening routes, as well potential routes throughout the day. We cannot wait for sequential charging of buses. Our business needs require the full rate of the charger, while the buses are charging.

BW was still not notified that its pursuit of a change to the specifications was received after the deadline for submission of questions and would not be considered. Amendment 2 was published on June 27, 2023, without mention of BW's request for information or the agency's response.

In *Protest of Amdahl Corp. and International Bus. Mach*, Panel Case No. 1986-6*,* the Procurement Review Panel dismissed protest grounds as untimely where the gravamen of the protest, which involved the specifications, went to the solicitation documents and should have been raised when they were published. Further, the fifteen days for protesting is not extended by an amendment issued when the amendment merely confirms the solicitation. In *Protest of Mechanical Contractors Assoc of SC*, Panel Case No. 1995-12*,* the Panel found that an amendment would only be "at issue" if it provided new or different information than in the solicitation documents because otherwise the fifteen days for protesting the solicitation would be extended by any amendment issued. *See also Protest of* S. C. *Ass 'n of the Deaf,* Panel Case No. 2008-2.

Regardless of the fact that BW was not advised that its request would not be considered because it was received after the deadline for receipt of questions, the BW protest was not received by the CPO until July 7, 2023, 44 days after first publication of the specification and well past the 15 days allowed for protest of a solicitation. This protest was not timely, and the CPO lacks jurisdiction to consider its merits.

**DECISION**

For the reasons stated above, the protest of Borgwarner EV Charging Systems is dismissed.

Michael B. Spicer
Chief Procurement Officer

Columbia, South Carolina

Attachment 1

BORGWARNER

BorgWarner | 15545 Wells Highway | 29768 Seneca, SC | USA

Dick Johnson
Sales
EV Charging Systems

Phone 215-498-2111
Mail dijohnson
@borgwarner.com

Ref Protest to
Solicitation 5400025315

07.06.2023

Via Email – protest-itmo@itmo.sc.gov
Mr. John St. C. White, PE
Chief Procurement Officer
Information Technology Management Officer
1201 Main St., Suite 601
Columbia, SC 29201

**RE:**
**Protest to Solicitation 5400025315 "CHARGING STATIONS FOR EV BUS SITES"**

Dear Mr. White:

BorgWarner respectfully submits this protest in response to Solicitation 5400025315 "CHARGING STATIONS FOR EV BUS SITES" amendment posted June 22, 2023 (the "EV Bus Solicitation").

In Section 3.1.2(c), the EV Bus Solicitation currently mandates "two simultaneous charging connection points" and specifically states that "[s]equential only charging will not be approved." We believe that this requirement unnecessarily restricts the EV Bus Solicitation and deprives the South Carolina Department of Education (the "Department") from potentially benefiting from currently available charging technology. In either case, sequential or simultaneous charging, the time to recharge the buses is identical (please see data in the Appendix). The focus on a single charging method (simultaneous charging) is unduly restrictive as opposed to allowing the Department the full scope of technology options available. Despite being able to meet all specifications under Section 3.1 of the EV Bus Solicitation, due to the simultaneous charging requirement and sequential charging exclusion, our technology would be excluded from consideration – simply because of the restrictive charging method that the EV Bus Solicitation demands. The EV Bus Solicitation is too narrow in scope and inadvertently limits the number of vendors that could supply innovative charging technologies that could greatly benefit school districts. **We ask the Department to amend the EV Bus Solicitation to omit the requirement for "simultaneous charging" and remove the sequential charging exclusion.**

BorgWarner's direct current fast chargers (DCFCs) for school buses are designed for sequential charging, which would achieve identical outcomes to simultaneous charging as required in the EV Bus Solicitation, and provide the additional technological advantages outlined below. We believe

PowerDrive Systems

**BorgWarner**

15545 Wells Highway
29768 Seneca, SC
United States of America
+1 864-985-0568

BORGWARNER

there are new technologies like vehicle-to-grid (V2G) and vehicle-to-building that significantly impact total cost of ownership, futureproofing, and performance that the Department may not be aware of and should consider when investing in its new fleet of electric school buses and its charging infrastructure. Our proprietary sequential bidirectional charging solution is designed for electric school buses with these factors in mind and would meet the same power and charging time requirements of the EV Bus Solicitation. Please see the detailed comparison data included in the Appendix for additional information.

BorgWarner is currently partnering with school districts around the country to provide our bidirectional sequential DCFCs for similar electric school bus fleets. A number of our projects are also enabled by the EPA's Clean School Bus Program.[i] We strive to maintain a significant percentage of domestic content that meets Build America Buy America requirements by manufacturing our DCFCs in the U.S. at our Dearborn, Michigan factory. Additionally, with the V2G capabilities of BorgWarner's charging technology, we have the proven technology to provide school districts with the ability to send energy from bus batteries back to utilities or buildings during times of peak demand, supporting the power grid and enabling revenue-generating opportunities.[ii] While not a requirement included in the Department's EV Bus Solicitation, this technology could prove to be a financial benefit to the State.

We welcome the opportunity to demonstrate that our sequential DCFCs can meet the duty cycles and charging time requirements desired by the Department and thus qualify for inclusion in the Department's consideration of available providers for its electric bus charging sites.

Please let me know if I can provide any additional information or answer any questions about BorgWarner's proprietary school bus charging solution.

Thank you for your consideration.

Kind regards,

Dick Johnson

Dick Johnson
BorgWarner EV Charging Systems

## APPENDIX

**Additional Information**

The Department received an award from the U.S. EPA Clean School Bus program to fund 60 electric school buses for 16 locations throughout school districts in South Carolina. The Department placed an order for 60 electric school buses with Thomas Built Buses and recently issued the EV Bus Solicitation, for the chargers to support these buses.
The EV Bus Solicitation requests 74 simultaneous 60kW chargers with dual dispensers and specifically excludes sequential chargers.

The following data demonstrates that sequential charging can provide the necessary charging needs for the morning and evening runs made by the Department's electric school bus fleet. The data below shows that a 60kW sequential charger and a 30kW simultaneous charger with dual dispensers are equivalent in performance.

**Table 1: A sequential 60kW charger with two dispensers, charging two busses sequentially.**

| Sequential Charging | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| State of Charge Remaining | 80% | 70% | 60% | 50% | 40% | 30% | 20% | 10% |
| Battery 226 Kw | 180.8 | 158.2 | 135.6 | 113 | 90.4 | 67.8 | 45.2 | 22.6 |
| Used Kw in transit | 45.2 | 67.8 | 90.4 | 113 | 135.6 | 158.2 | 180.8 | 203.4 |
| 60 Kw/hr charge time | 0.8 | 1.1 | 1.5 | 1.9 | 2.3 | 2.6 | 3.0 | 3.4 |
| Charge time per bus | Hours | Hours | Hours | Hours | Hours | Hours | Hours | Hours |
| Bus 1 | 0.8 | 1.1 | 1.5 | 1.9 | 2.3 | 2.6 | 3.0 | 3.4 |
| Bus 2 | 1.5 | 2.3 | 3.0 | 3.8 | 4.5 | 5.3 | 6.0 | 6.8 |

Sequential chargers can be programmed to move to the next dispenser in sequence, based on a pre-programmed desired state of charge level of each vehicle's battery. This flexibility means that in the example in Table 1, the 60kW charger could be programmed to charge two buses.

**Table 2: A simultaneous 60kW charger with two dispensers charging at 30kW each.**

| Simultaneous Chargin | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| State of Charge Remaining | 80% | 70% | 60% | 50% | 40% | 30% | 20% | 10% |
| Battery 226 Kw | 180.8 | 158.2 | 135.6 | 113 | 90.4 | 67.8 | 45.2 | 22.6 |
| Used Kw in transit | 45.2 | 67.8 | 90.4 | 113 | 135.6 | 158.2 | 180.8 | 203.4 |
| 30 Kw/hr charge time | 1.5 | 2.3 | 3.0 | 3.8 | 4.5 | 5.3 | 6.0 | 6.8 |
| Charge time per bus | Hours | Hours | Hours | Hours | Hours | Hours | Hours | Hours |
| Bus 1 & 2 | 1.5 | 2.3 | 3.0 | 3.8 | 4.5 | 5.3 | 6.0 | 6.8 |

In Table 2, a simultaneous 60kW charger provides 30kW charge for each dispenser. The percentage of use and charge time are the same as those listed for sequential charging in Table 1.

This data was presented to the Department on June 22, 2023. The Department responded, "we will use these buses to transport students for morning and evening routes, as well as potential routes throughout the day. We cannot wait for sequential charging of buses. Our business needs require the full rate of the charger, while the buses are charging."

On June 23, 2023, BorgWarner requested permission to bid 60kW chargers with single dispensers that would meet the simultaneous requirements. The Department responded, "Our solicitation stands as it is, because it best meets our business needs. Thank you for your interest in doing business with SCDE."

**The Department's response suggests that the EV Bus Solicitation might not fully consider the location, duty cycles, or mileage per run of these buses when comparing simultaneous to sequential. These factors are important when choosing the best suited technologies and designing EV infrastructure systems because they can significantly impact efficiency, futureproofing, performance, and reliability.**

Based on the public information provided by the Department, we estimate that 2.5 hours of sequential charging would provide more than ample time to meet the needs of this use case:

- To plan for range restrictions and to provide the most efficient charging solutions possible, it is critical to know the mileage of the morning run and the time that the buses will be plugged in between the morning and the evening runs.
- In this use case, based on an average 1.5 to 2.5kW per mile per school bus factor, a bus with a battery capacity of 226kW would have a range of approximately 150 miles in ideal conditions and an approximate range of 100-150 miles in hilly country. Generally, the school districts may have average morning runs of 50 miles, which would use 75kW of the 226kW or 33% of the battery. With a 60kW sequential charger, one bus would need 1.25 hours to charge to 100%. With two buses, the total charge time would be 2.5 hours.
- In most of the cases, school buses return from their morning runs by 9:00 or 10:00am with their afternoon run at 3pm, which means there is a five-hour rest time in the afternoons.
- In Table 1, the data shows that even if the bus has 30% state of charge left after a morning run, there would be more than sufficient time left (2.3 hours), to charge the bus before its next run.
- Once the buses are parked at night there is more than adequate time to charge.

---

[i] BorgWarner Partners with the School District of the City of Pontiac to Offer Industry-First Charging System for Buses

[ii] In the summers of 2021 & 2022, Highland Electric Fleets & BorgWarner used vehicle-to-grid (V2G) technology to discharge 10+ MWh hours to the Massachusetts grid over 158 hours -- the first time battery storage from electric school buses (ESBs) was used in a commercial V2G program in the United States. Participation generated $23k in revenue and demonstrates the value ESBs can deliver to support the grid and lower the cost of ownership of an electric bus fleet. See BorgWarner White Paper: Pioneering Commercial Vehicle-To-Grid In Electric School Buses

**STATEMENT OF RIGHT TO FURTHER ADMINISTRATIVE REVIEW**

*Protest Appeal Notice (Revised May 2020)*

The South Carolina Procurement Code, in Section 11-35-4210, subsection 6, states:

> (6) Finality of Decision. A decision pursuant to subsection (4) is final and conclusive, unless fraudulent or unless a person adversely affected by the decision requests a further administrative review by the Procurement Review Panel pursuant to Section 11-35-4410(1) within ten days of posting of the decision in accordance with subsection (5). The request for review must be directed to the appropriate chief procurement officer, who shall forward the request to the panel or to the Procurement Review Panel, and must be in writing, setting forth the reasons for disagreement with the decision of the appropriate chief procurement officer. The person also may request a hearing before the Procurement Review Panel. The appropriate chief procurement officer and an affected governmental body shall have the opportunity to participate fully in a later review or appeal, administrative or judicial.

---

Copies of the Panel's decisions and other additional information regarding the protest process is available on the internet at the following web site: http://procurement.sc.gov

FILING FEE: Pursuant to Proviso 111.1 of the 2020 General Appropriations Act, "[r]equests for administrative review before the South Carolina Procurement Review Panel shall be accompanied by a filing fee of two hundred and fifty dollars ($250.00), payable to the SC Procurement Review Panel. The panel is authorized to charge the party requesting an administrative review under the South Carolina Code Sections 11-35-4210(6), 11-35-4220(5), 11-35-4230(6) and/or 11-35-4410…Withdrawal of an appeal will result in the filing fee being forfeited to the panel. If a party desiring to file an appeal is unable to pay the filing fee because of financial hardship, the party shall submit a completed Request for Filing Fee Waiver form at the same time the request for review is filed. *[The Request for Filing Fee Waiver form is attached to this Decision.]* If the filing fee is not waived, the party must pay the filing fee within fifteen days of the date of receipt of the order denying waiver of the filing fee. Requests for administrative review will not be accepted unless accompanied by the filing fee or a completed Request for Filing Fee Waiver form at the time of filing." PLEASE MAKE YOUR CHECK PAYABLE TO THE "SC PROCUREMENT REVIEW PANEL."

LEGAL REPRESENTATION: In order to prosecute an appeal before the Panel, business entities organized and registered as corporations, limited liability companies, and limited partnerships must be represented by a lawyer. Failure to obtain counsel will result in dismissal of your appeal. *Protest of Lighting Services*, Case No. 2002-10 (Proc. Rev. Panel Nov. 6, 2002) and *Protest of The Kardon Corporation*, Case No. 2002-13 (Proc. Rev. Panel Jan. 31, 2003); and *Protest of PC&C Enterprises, LLC*, Case No. 2012-1 (Proc. Rev. Panel April 2, 2012). However, individuals and those operating as an individual doing business under a trade name may proceed without counsel, if desired.

# South Carolina Procurement Review Panel
# Request for Filing Fee Waiver
# 1205 Pendleton Street, Suite 367, Columbia, SC 29201

_____ _____
Name of Requestor Address

_____ _____
City State Zip Business Phone

1. What is your/your company's monthly income? _____

2. What are your/your company's monthly expenses? _____

3. List any other circumstances which you think affect your/your company's ability to pay the filing fee:

_____

_____

_____

To the best of my knowledge, the information above is true and accurate. I have made no attempt to misrepresent my/my company's financial condition. I hereby request that the filing fee for requesting administrative review be waived.

Sworn to before me this
_____ day of _____, 20_____

_____ _____
Notary Public of South Carolina Requestor/Appellant

My Commission expires: _____

For official use only: _____ Fee Waived _____ Waiver Denied

_____
Chairman or Vice Chairman, SC Procurement Review Panel

This _____ day of _____, 20_____
Columbia, South Carolina

**NOTE: If your filing fee request is denied, you will be expected to pay the filing fee within fifteen (15) days of the date of receipt of the order denying the waiver.**