

The Greening Government Initiative Greening Fleets Working Group

International Call for Information: Alternatives to wire-based EV charging in parking lots



SUMMARY:

The Greening Government Initiative (GGI) Greening Fleets Working Group is issuing this Call for Information to solicit public input and information on Alternatives to wire-based EV charging in parking lots. Responses to this Call should be received by October 15th, 2023.

BACKGROUND:

This call is being issued on behalf of the Greening Fleets Working Group of the Greening Government Initiative (GGI) (www.sustainability.gov/ggi). The GGI is a global community of practice that consists of officials from over 40 countries across 5 continents that are working to green national government operations. GGI participants exchange knowledge, promote innovation and share best practices to build climate resilience in the public sector.

In many countries, the government is the largest vehicle fleet owner, electricity consumer, real estate holder, and purchaser of goods and services. Efforts to decarbonize government operations therefore not only have direct emissions impacts, but also send demand signals to suppliers that can spur economy-wide actions, drive zero-carbon technologies and markets, and lower decarbonization costs. GGI participants acknowledge the critical role of national governments in accelerating the transition towards a sustainable and climate-neutral future by greening their own operations and demonstrating leadership by example.

Reducing emissions from government fleets is a priority for the GGI. Many GGI countries are pursuing policies and actions to transition government fleets to a zero-emissions fleet. These GGI countries are seeking information from the private, not-for-profit, academic and

research sectors about technologies and innovations that can inform such policies, actions, and future procurements.

The GGI Greening Fleets Working Group, chaired by the Government of The State of Israel and composed of the member governments of Canada, Denmark, The Kingdom of Morocco, Norway, and The United States of America is hereby publishing this Call for Information (Call) relating to reducing the environmental footprint of governmental fleets, and focusing on the following topic:

Alternatives to wire-based EV charging in parking lots

Parties interested in submitting a reply on this topic may do so to the working group secretariat via Mr. Avi Blau, Sustainability Consultant to the Israeli Governmental Vehicle Administration at the following email address avibl@mof.gov.il.

Parties are advised that information submitted in response to this Call will be shared with all member governments of the GGI Greening Fleets Working Group and other GGI countries upon request. Submissions may or may not inform the GGI Greening Fleets Working Group's and constituent member nations' climate mitigation research and sustainability planning efforts, and may or may not inform member nations' future procurement and resource development strategies.

KEY AREA FOR INPUT: Alternatives to wire-based EV charging in parking lots

Through this Call, the GGI Greening Fleets Working Group seeks input and information on alternatives to wire-based EV charging in parking lots from stakeholders in the private, not-for-profit, academic, and research sectors.

As part of their functionality, EV batteries need to be charged frequently, which is predominantly done by means of a socket connected cable, and a charging device wire-based charging station connected to the EVs. This solution needs active engagement by the driver, and is only possible when the EV is still and positioned in a predetermined parking lot that is adjacent to charging device and a suitable electricity source. With the continued increase in the adoption of electric vehicles, the need to allocate parking spots to EVs and build the necessarily infrastructure for the charging stations increases. Additionally, situations in which a non-electric vehicle is occupying a spot next to a charging station, or in which an EV occupies a parking spot even when fully charged, thus preventing other EVs from accessing the charging station, are becoming more frequent.

The GGI Greening Fleets Working Group is interested in receiving information about solutions that enables charging that is not dependent on a fixed cable connection, and that can be done while the vehicle is either still or in motion. This can be achieved by incorporating EVs with onboard energy production systems (e.g., solar panels), autonomous robots/ mobile batteries that can get the electricity power supplied to the location where the vehicle is parked, , etc.

HOW TO RESPOND:

Responses to this Call should be submitted via an email entitled “Responding to a Call for Information about alternatives to wire-based EV charging in parking lots” to the email address listed below, up to the date October 15th, 2023. The respondent must verify the receipt of receipt confirmation via a return email.

- a. Responses to this Call should be submitted either in Word (Doc or Docx) or as a PDF file.
- b. The contact person regarding this inquiry is Avi Blau, via avibl@mof.gov.il

TERMS AND CONDITIONS:

1. By providing information in response to this Call, the respondent agrees that the GGI Greening Fleets Working Group may, at its sole discretion:
 - a. Change the deadline for submitting a response to the Call.
 - b. Use the information received as a result of this Call for any need, and to inform other future GGI Greening Fleets Working Group activities on this topic.
 - c. Contact, as necessary, the person who responded to this Call for the completion of information and clarifications.
 - d. Publish by way of tender or otherwise, specifications or characterizations that may be based on information gathered through this Call.
2. Respondents, by submitting responses to this Call, consent to the GGI Greening Fleets Working Group sharing their responses with other GGI countries upon request. Respondents also consent to their submissions being reviewed by contractors and private consultants working to support the national government operations of GGI countries.
3. To avoid doubt, it is clarified that information provided in response to this Call is for informational purposes only and does not constitute a submission to a Request for Proposal

or tender process. It is also clarified that responding to this Call does not constitute an advantage or condition for participation in a tender, if held in the future, and will not require the GGI Greening Fleets Working Group to include the respondent in a tender or otherwise engage with the respondent.

4. All expenses involved in preparing and submitting the submission to this Call are solely the responsibility of the respondents. It should be emphasized that respondents will not be entitled to any compensation, indemnification, reimbursement or payment from The GGI Greening Fleets Working Group for responding to this Call.

RESPONDENT'S REPRESENTATIONS

5. By providing information in response to this Call, the respondent further represents:

a. It will make no claims or requirements upon The GGI Greening Fleets Working Group or any other party in connection with the use of information provided in response to the Call.

b. The information submitted in response to this Call does not include any sensitive, confidential information or trade secret. Participating governments in the GGI Greening Fleets Working Group may wish to establish one-on-one meetings with relevant respondents, in accordance with their national practices, should governments feel that more information is needed in order to understand the value of the proposed solutions.

c. Information submitted in response to this Call or its future use does not infringe on the rights of a third party, including copyrights; and that the respondent alone will be liable for any demand or claim arising from use of information submitted in violation of such third-party rights.

Appendix A - Details of the Application

1	Respondent's name:	
2	Type of organization (company/association/partnership, etc.):	
3	ID number (Bn./other identification number):	
4	Respondent address (including country)	
5	The name of the respondent's representative and their role:	
6.1	6. Respondent contact:	Name:
6.2		Work phone:
6.3		Mobile phone:
6.4		Email:
7	Name of the proposed solution:	
8	List of customers, if any:	
9.1	The concept of the solution: Details of the technology / method / business model on which the concept of the solution is based. The following issues should be addressed according to their relevance, and the environmental impacts of the solution should be highlighted	
9.2	Please describe in detail what technology the solution is based on – E.g., wireless charging, robotics, car mount solution (solar panels on EVs etc.), or other solutions?	
9.2.1	What is the source of energy for your solution – Grid based, energy generation i.e, solar panels, hydrogen cells other?	
9.2.2	Does the solution include energy storage i.e., batteries, flywheel, other?	

9.3	What is the maximum potential charging rate (kwh/hour)? Please refer to grid-based and storge-based solutions separately.	
9.4	If the solution includes storage capabilities, what is the maximum storage capacity (KW)?	
9.5	What is the maximum number of cars that can be charged at the same time and at what rate (Kwh)?	
9.6	Please describe the entire charging process including adaptations needed on the driver/parking lot side to fit the solution. Who can trigger a "move" to charge another vehicle? How do users get notified that the charging is complete?	
9.7	Does the solution generate an electromagnetic field or radiation? please discuss how you addressed this issue.	
9.8	Does the system know how to dynamically prioritize the allocation of charging or power based on the power consumption needs of the adjacent building/parking lot and the option for charging prioritization?	
9.9	How does the system identify and communicate with the vehicle, user (through RFID, app, etc.)?	
9.10	Is the hardware interoperable with different charging networks (i.e., OCPP-compliant)?	
9.11	Does the system interface with the Utility? Is the system utilizing a standardized interface (i.e.. OpenADR)?	
9.12	Does the system know how to alert the user to hardware and software malfunctions?	
9.13	To what extent is the proposed system capable of remotely troubleshooting and fixing issues and faults?	

9.14	Is there a help desk available for the user to contact in case of problems? – and what are the opening hours for this service?	
9.15	With what building management system communication protocols is the system compatible?	
9.16	What is the business model? Is the client managing the software and hardware? or is it a charging service solution entirely managed by the supplier?	
10.1	What are the benefits of the product/solution over other products on the market?	
10.2	What are the drawbacks of the product/solution over other products on the market? Please discuss any limitation (e.g., does the system compatible with all EVs models? Ect.)	
11.1	The status of the solution – does it exist or is further R&D required? If R&D is required, have you begun development, and at what stage of R&D are you?	
11.2	If the solution requires further R&D- what is the minimal procurement value required to justify your continued investment in the development of the proposed solution?	
12	What are the supporting infrastructures required to operate and maintain the product? (Space allocation, electricity, connectivity, availability of travel routes for autonomous systems, underground infrastructure, etc.)	
13	Are there any actions required on behalf of the user to maximize the benefit from the product?	
14.1	The price range of each stage of the proposed solution, including direct costs for the product itself and its installation and related costs (such as waste handling,	

	maintenance of auxiliary systems, etc.) that will be borne by the user.	
14.2	Are there any usage/ongoing costs beyond the purchase cost? Such as license fees, maintenance, connectivity, etc.?	
15	Method of contracting – contractual/proprietary issues that the respondent wants to bring to the attention of the applicant as a possible model of engagement. What are possible contracting formats and durations proposed with the members of the Greening Fleets Working Group ?	
16	How will the benefits of contracting the proposed solution come to play – please address separately each of the potential following benefits:	We will ask respondents to pay attention to this section – it is important for the working group to understand whether the proposed solution is indeed a preferred environmental alternative, and to the extent that this is even possible to quantify the benefits of the proposed solution.
16.1	Economic	
16.2	Environmental	
16.3	Operational	
17	Any other comment or input	
18	Additional questions for Canada/Norway:	
18.1	Will the solution be suitable for the Canadian/Norwegian climate (capable of withstanding colder temperatures)? What are the operating temperature ranges?	
18.2	Will the solution be adaptable/scalable to cover the longer distances of travel seen in North America, when comparing to the other markets identified by the GGI WG participants?	

18.3	Does the proposed solution meet the (Canadian) CSA standards.	
18.4	Are the proposed network protocol security measures integrated in the proposed solutions in line with Canadian and North American requirements?	



كنوع ، لقد استكشفنا دائماً.
إنه مجرد جزء من حمضنا النووي ،
للسير فوق قمة الجبل التالية.
لتحمل هذا الخطر. لتعلم شيء جديد.

As a species, we've always explored.
It's just a part of our DNA,
To walk over the next mountain top.
To take that risk. To learn something new

Som art har vi alltid utforsket.
Det er bare en del af vores DNA,
At gå over den næste bjergtop.
At tage den risiko. At lære noget nyt

כזן, תמיד היינו חוקרים.
זהו פשוט חלק מהדי אן איי שלנו.
להמשיך אל מעבר לפסגת ההר הבא.
לקחת את הסיכון הזה. ללמוד משהו חדש.

Som art har vi alltid utforsket.
Det er bare en del av vårt DNA,
Å gå over neste fjelltopp.
Å ta den risikoen. Å lære noe nytt.

En tant qu'espèce, nous avons toujours exploré.
Cela fait simplement partie de notre ADN.
Continuez au-delà du sommet de la prochaine montagne.
Prendre ce risque. Apprendre quelque chose de nouveau.