



## **GUIDELINES FOR PARTICIPATION IN THE CALIBRATION PROJECT**

### **Description of the Project:**

This project is implemented as part of the Project "Metrology for Sustainable Energy Technologies and the Environment (M4SET)" executed by the Organization of American States (OAS) and the National Institute of Standards and Technology of the United States (NIST).

The objective of this project is to give better traceability to the Ozone measurements in Latin American and Caribbean (LAC) Cities. The project contemplates a series of activities that will be implemented in a span of three months beginning in August and ending in October 2020. These activities include three webinars that will guide the project implementation process and address training needs, an inter-comparison using a level 2 transfer standard calibrated with NIST's SRP primary standard and subsequently calibrated against the Laboratory SRP primary standard of air quality (CALAIRE) in Colombia and the National Institute of Ecology and Climate Change (INECC) in Mexico, and finally, the calibration of photometers or calibrators of the participating cities (beneficiaries of the project) against the primary SRP standard of Cities of Medellin (CALAIRE) and Mexico (INECC).

### **Guidelines for the application:**

The institutions that are interested in participating in the calibration project of a level 2 transfer standard must demonstrate that they comply with the requirements established in the application form.

The number of selected cities is subject to the availability of financial resources. The OAS will cover the calibration costs and, in some cases, may cover the transportation costs of the equipment to the cities where the calibration will be carried out (Medellin or Mexico City). However, please note that those institutes that are willing to cover the cost of transporting the equipment will have priority in the selection. Institutions interested in participating in this project covering their own calibration costs at CALAIRE Air Quality Laboratory will enjoy the same discount granted to the project for the calibration of the UV photometer.

Although several institutions within the same country can participate and benefit from the project, the selection of the institutions that will receive financial support with the payment of the calibration will be made seeking to benefit the greatest number of countries.

The results of the project will be compiled in a publication that will address the details of the calibration and will serve as an-input to identify opportunities for improvement of the monitoring networks. In this sense, the chosen cities must authorize the use of the data resulting from the Project for the publication.



The application deadline is August 20, 2020. The OAS, NIST, and Certifying Bodies will review the proposals and select the beneficiary institutions based on the following selection criteria:

- a. Compliance with the requirements established for the equipment.
- b. Ability to cover the transportation costs of the equipment, or if you cannot meet this cost, state it.
- c. Authorization of the use of the results for the development of the publication.
- d. Number of applications per country.

If you have any questions about the application or the objectives of the project, please contact Bibiana Serna ([BSerna@oas.org](mailto:BSerna@oas.org)), Magdalena Navarro ([magdalena.navarro@nist.gov](mailto:magdalena.navarro@nist.gov)) via email.

Find below the information that must be filled out by the applicants

### M4SET Application Form

Once you complete your form, please send the application to Bibiana Serna ([BSerna@oas.org](mailto:BSerna@oas.org)), Magdalena Navarro ([mnavarro@nist.gov](mailto:mnavarro@nist.gov)). Include the phrase "M4SET project" in the subject line of the email.

Application date	
Institution	
Address	
City	
Country	
Responsible for the application:	Name:  Telephone:  Email:
<b>Information about the equipment</b>	

Brand of the equipment	
Model	
Serial Number	
Acquisition year	
Additional equipment options installed by the manufacturer	
Additional equipment information that consider important	

Mark "yes" or "no", to indicate if the equipment complies with the indicated characteristic

Item	Description of the enabling requirement	Yes/No	Comments / Clarification
1	Does the equipment have a photometer with a UV wavelength of 254 nm?		
2	Does the equipment have an internal ozone generator? *		
3	Are the operating parameters of the equipment within the values stipulated by the manufacturer?		
4	Is the UV lamp performance at least 15% above the manufacturer's recommended minimum value?		
5	Is the equipment leaking in its pneumatic system?		

6	Can you perform internal cleaning of the equipment maintaining the manufacturer's operating parameters before shipping it?		
7	Can you perform external cleaning of the equipment before shipping it?		
8	Is the computer chassis in good condition?		
9	Are the pneumatic connections of the equipment in good condition?		
10	Since purchasing the equipment, have you performed calibrations with a primary SRP standard? Note: In the observations field indicate how many calibrations and the date of the last one carried out.		

\*Note: Item 2 is an essential factor for the equipment to be calibrated by the Mexican SRP at the INECC, for the Colombian SRP it is not an enabling factor.

Please answer the following questions related to criteria b, c

11	¿Can your institution dispense with the photometer or calibrator for the time it takes for transfers and certification in CALAIRE (Medellin) or INNEC (Mexico City)?	Yes ___ No ___ Observation / Clarification:
12	What calibration laboratory would the equipment be shipped? In your choice, please note that the calibration location should be selected based on the minimum cost of transportation.	___ Medellín - Colombia (CALAIRE) ___ México - Mexico City (INEC)

13	Can your institution cover the transportation costs of the equipment, to the calibration laboratory in Colombia or Mexico?	Yes ___ No ___ Observation / Clarification:
14	Can your institution cover equipment calibration costs? (The benefit would be to participate in the publication of the comparative results of the member countries of the project)	Yes ___ No ___ Observation / Clarification:
15	How many weeks of preparation from August 1 does it take to ship the equipment?	
16	Do you authorize the use of the data obtained in the calibration for the development of the technical publication? This publication seeks to identify opportunities for improving metrological traceability in air quality networks in Latin America and the Caribbean.	Yes ___ No ___ Name: Position: Institute: Signature:

**Additional information about the equipment. Equipment description Informative only (not enabling)**

Item	Equipment Description	Yes/No	Comments / Clarification
17	Is the equipment a dynamic Calibrator?		
18	Is the equipment a photometric ozone calibrator? Does it calibrate only ozone? Such as the Teledyne T703 model.		

19	Does the equipment have the configuration option about the correction of temperature and pressure-activated? Is this option offered by the manufacturer?		
20	If the temperature and pressure option is deactivated, does it allow making the change before performing the calibration?		
21	Have you performed leak tests or ozone leak tests on your equipment?		
22	Do you need advice to carry out the ozone leak / leak test on your equipment?		
23	Can you share the sheet of the last calibration of your equipment? In case it is available.		

<p>Document completed by:</p> <p>Position:</p> <p>Institute / organization</p>	<p>Signature:</p>
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