

TEAP: Nomination Form

This form is to be completed by:

Parties nominating experts to the TEAP, Technical Options Committees (TOCs), or Temporary Subsidiary Bodies (TSBs)

Please provide a CV detailing the candidate's previous, relevant employment beginning with the most current one. Experience and expertise relevant to the Montreal Protocol are particularly important and a list of relevant publications is useful (do not provide copies of publications)

Position Nominated for: Co-chair of the Refrigeration, Air Conditioning and Heat Pumps Technical Options Committee - RTOC

Expert Information

Please provide full names rather than only acronyms or initials

Title: Ms. Mr. Other: _____
 Professor Dr

Name (underline family name): ROBERTO DE AGUIAR PEIXOTO

Employer / Organization: Instituto Mauá de Tecnologia – IMT (Maua Institute of Technology)

Job Title: Professor of Mechanical Engineering

Address: Praça Mauá 01, S. Caetano do Sul, SP, Brazil, 09580-900

Telephone: +55 11 42393021; +55 11 999594222 (mobile)

Skype: robpeixoto

Email: robertopeixoto@maua.br

Web Site: www.maua.br

Nationality/ies: Brazilian

Country of residence: Brazil

Applicant profile

Please provide a short summary of the applicants' expertise and skills, as they relate to the position for which he/she is being nominated.

Since 1990, Dr. Roberto A. Peixoto has been involved in many activities, in the refrigeration, air conditioning and heat pumps (RACHP) sector, related to R&D, education and training, and consultancy for the implementation of the Montreal Protocol CFC and HCFC phase-out, and HFC phase down, due to the Kigali Amendment. He has also been involved with activities related to the climate impact of RACHP equipment.

His expertise and skills can be looked at different levels:

1. Through academic studies and research activities on the evaluation of alternative refrigerants. In this area, Dr. Peixoto has been working with testing and promoting alternative refrigerants and helping Brazilian companies, with the assessment of refrigerant options.
 2. Through his work, as a technical consultant to Montreal Protocol implementing agencies, he has been working with the development of projects for industry conversion, Refrigerant Management Plans, National Cooling Plans, Training Programs, and dissemination of technologies of low GWP alternative refrigerants to protect the ozone layer and prevent climate change.
 3. As member of the United Nations Environment Program (UNEP) Refrigeration Air Conditioning and Heat Pumps Technical Options Committee (RTOC), and presently, as co-chair, participating and coordinating assessment reports with the updated information about the refrigerant options, supporting the understanding of the alternatives by the Parties, and assisting the RACHP technical community.
 4. Dr. Peixoto has been involved, as a member and also as a co-chair, in several task forces created by UNEP Technological and Economical Assessment Panel (TEAP) to study and prepare reports on specific aspects of the Montreal Protocol (chillers, HCFC alternatives, HFC alternatives, Energy Efficiency, among others).
 5. Dr. Peixoto has participated in some Meeting of the Parties of the Montreal Protocol presenting and clarifying aspects of these reports to Countries delegates and negotiators.
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Employment History and/or Relevant Experience

Main Countries or Regions
Worked or Experience in
(with relevance to Montreal
Protocol)

Through his activities, as a Visiting Scholar and Researcher Engineer, and as a Visiting Professor, Dr. Peixoto has worked and lived in the United States and in the United Kingdom. As a consultant to Montreal Protocol implementing agencies, he has been working in Latin American and Caribbean countries like Brazil Argentina, Mexico, Colombia, Venezuela, Uruguay, Chile, Paraguay, Peru, Panama, Trinidad Tobago, Haiti, Guatemala, Dominican Republic, Costa Rica, Nicaragua, Jamaica; and other countries in Asia (Pakistan, Bangladesh, Sri Lanka) and Africa (Ghana)

Publications

Please give a list of relevant publications (do not attach)

- Peixoto, R.A et al, “Report of the Refrigeration, Air Conditioning and Heat Pumps Technical Option Committee, 2022 Assessment”, ISBN: 978-9914-733-93-8, UNEP Nairobi, Ozone Secretariat, 2019 (Peixoto, R. A. author and editor)
 - Polonara, F. et al, “The 2022 RTOC Assessment Report Under Montreal Protocol” European Conference RACHP, 8th – 9th June 2023 | Politecnico di Milano, Milan, Italy.
 - Peixoto, R.A, “The Status and Trends of Natural Refrigerants in South America”, 15th IIR-Gustav Lorentzen conference on Natural Refrigerants | June 13-15 | Trondheim, Norway
 - Peixoto, R.A.; Paiva, M.A.; Macedo, G.D.; Fiorelli, F.; Bessa, C.V. “Modeling and Numerical Simulation of Split-Type Air Conditioners with Variable Speed (Inverter) and Fixed Speed (on-off) using lower-GWP Refrigerant”, ABRAVA Journal – February 2021, pg 28–34. (in Portuguese)
 - Macedo, G.; Paiva, M.; Peixoto, R. “Energy Performance of Split Air Conditioners - Inverter and On-Off”, VI Esc. Verão Refrig., São Carlos, 2021: pp. EVR2021-027. <https://doi.org/10.26678/abcm.evr2021>. (in Portuguese)
 - Peixoto, R.A et al “Report of the Technology and Economic Assessment Panel - Continued Provision of Information on Energy-Efficient and Low-Global-Warming-Potential Technologies” (Peixoto, R. A. author and editor), ISBN: 978-9966-076-86-1 UNEP Nairobi, Ozone Secretariat, 2020
 - Polonara, F. et al “Report of the Technology and Economic Assessment Panel - Cost and Availability of Low-GWP Technologies/Equipment that Maintain/Enhance Energy Efficiency” (Peixoto, R. A. author and editor), ISBN: 978-9966-076-77-9, UNEP Nairobi, Ozone Secretariat, 2019
 - Peixoto, R. A.; Paiva, M. A.; Melero, V. “Field Test of Inverter and Fixed-speed Split Air Conditioning Units for Assessment of the Energy Consumption “ XVI Brazilian Congress on Refrigeration and Air Conditioning - Conbrava, S. Paulo, September 2019. (in Portuguese)
 - Polonara, F. et al “Report of the Technology and Economic Assessment Panel - Issues Related to Energy Efficiency While Phasing Down Hydrofluorocarbons” (Peixoto, R. A. author), ISBN: 978-9966-076-42-7, UNEP Nairobi, Ozone Secretariat, 2018
 - Peixoto, R.A et al “Report of the Refrigeration, Air Conditioning and Heat Pumps Technical Option Committee, 2018 Assessment”, ISBN: 978-9966-076-58-8 UNEP Nairobi, Ozone Secretariat, 2019 (Peixoto, R. A. author and editor)
 - Peixoto, R.A et al “Decision XVIII/3 – Energy Efficiency”, ISBN:978-9966-076-32-8, UNEP Nairobi, Ozone Secretariat, 2017. (Peixoto, R. A. author and editor)
 - Peixoto, R., Polonara, F., Kuijpers, L., Maidment G., “The Montreal Protocol Kigali Amendment and Refrigerant Alternatives”, XIV Ibero American Congress of Refrigeration - CIAR, S. Paulo, September 2017
 - Peixoto, R., Polonara, F., Kuijpers, L., “Potential impacts of the Montreal Protocol Kigali Amendment to the choice of refrigerant alternatives”, International Journal of Heat and Technology ISSN: 0392-8764 vol. 35, September 2017
 - Peixoto, R., Polonara, F., Pachai A., Nielsen O., “Short course 2: Challenges of Natural Working Fluids in High Ambient
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- Temperature Countries”, 12th IIR Gustav Lorentzen Natural Working Fluids Conference. Edinburgh, July 2016.
- Peixoto, R.A et al “UNEP, 2016 UNEP, Decision XXVII/4 Task Force Report – Further Information on Alternatives to ozone Depleting Substances, March 2016”, ISBN 978-9966-078-17-5. (Peixoto, R. A. author and editor)
 - Peixoto, R., Kuijpers, L., “Overview of Alternatives for Replacement of HCFC-22 and High GWP HFC in Refrigeration and AC Equipment”, XIV Brazilian Congress of Refrigeration and Air Conditioning - Conbrava, September 2015
 - Peixoto, R.A et al “Report of the Refrigeration, Air Conditioning and Heat Pumps Technical Option Committee, 2014 Assessment”, ISBN: 978-9966-076-09-0 UNEP Nairobi, Ozone Secretariat, 2015. (Peixoto, R. A. author and editor)
 - UNEP 2015, Update Decision XXVI/9 Task Force report, Additional information on alternatives to ozone-depleting substances”, September 2015, ISBN 978-9966-076-14-4. (Peixoto, R. A. author and editor)
 - Peixoto, R., Kuijpers, L., “Current Status and Trends in HCFC Replacement in Refrigeration and Air Conditioning Equipment”, XIII Brazilian Congress of Refrigeration and Air Conditioning – Conbrava, September 2013
 - Peixoto, R., et al., “Current Status and Trends in HCFC Replacement in Refrigeration and Air Conditioning Equipment, IEA Heat Pump Centre Newsletter, 2013
 - Guirardi W., Peixoto, R., “Influence of Atmospheric Air Conditions and Inlet Air Cooling Systems in the Performance of Gas Turbine” 23rd IIR International Congress of Refrigeration, Prague 2011
 - Peixoto, R. A. “CFCs, HCFCs and HFCs Emissions in the Refrigeration and Air Conditioning Sector in the State of São Paulo”. XII Brazilian Congress of Refrigeration and Air Conditioning - Conbrava, São Paulo, October 2011. (in Portuguese). (in Portuguese)
 - Huerta A. S., Fiorelli, F., Silvas, O., Peixoto, R., “Experimental Analysis of the Oil Contents Influence in the Flow of Refrigerant HC-600a through Adiabatic Capillary Tubes”, IIR GL Norway 2010
 - Peixoto, R. A. “Experimental Investigation on the Performance of Commercial Freezers Using Refrigerant HC-600a”. 4th IIR - Gustav Lorentzen Conference on Natural Working Fluids. West Lafayette: [s.n.]. 2000.
 - Peixoto R. A., Hrnak P. "CFCs Phase-Out in Supermarket Refrigeration" ABRAVA Journal, May 1998. (in Portuguese)
 - Paiva, M. A. S.; Fiorelli, F. A. S.; Vodianitskaia, P.; Peixoto, R.. A.; Hernandez, A.; Silvas, O. “Experimental and Numerical Study of the Flow Through Non-Adiabatic Capillary Tubes with Lateral and Concentric Capillary Tube - Suction Line Heat Exchanger Configuration” 1995 International Institute of Refrigeration Meeting. Hague: [s.n.]. 1995.
 - Peixoto R. A., "Experimental Analysis and Numerical Simulation of Capillary Tube - Suction Line Heat Exchangers Using HFC-134a," 19th International Congress of Refrigeration, The Hague, The Netherlands, 1995.
 - Agarwal R., Clodic D., Cooper P., Janssen M., Kruse H., Kuijpers L., Peixoto R., Sundarsan G, “Commercial Refrigeration and HCFCs,” The World Bank, Ozone OORG Commercial Refrigeration Working Group, 1995.
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- Peixoto R. A.; Bullard C. W. "A Simulation and Design Model for Capillary Tube-Suction Line Heat Exchangers" International Refrigeration and Air Conditioning Conference, Purdue University, West Lafayette, US, 1994.
 - Peixoto R. and Bullard C., "Refrigerator Transient Analysis", Air Conditioning and Refrigeration Center, Technical Report, University of Illinois at Urbana-Champaign, 1994.
 - Peixoto R. and Bullard C., "A Design Model for Capillary Tube-Suction Line Heat Exchangers", Air Conditioning and Refrigeration Center, Technical Report, University of Illinois at Urbana-Champaign, 1994.
 - Paiva, M. A. S.; Vodianitskaia, P.; Hernandez, A.; Fiorelli, F. A. S. "The Behaviour of Lateral and Concentric Capillary Tube-Suction Line Heat Exchanger Using CFC-12 and HFC-134a" International Refrigeration Conference. Purdue: [s.n.]. 1994.
 - Peixoto R. A. "The Phase-Out of CFCs and HCFCs and the Refrigeration and Air Conditioning Industry", Brazilian Journal of Mechanical Sciences, vol. XVI, n. 3, 1993. (in Portuguese)
 - Paiva, M. A.; Peixoto, R. A. "Energy Optimization of Domestic Refrigerators and Freezers" III Brazilian Congress on Refrigeration and Air Conditioning - Conbrava, 1992. (in Portuguese)
 - Peixoto, R.A., Paiva, M.A.S., "Energy Conservation in Air-Conditioning Systems - Theoretical and Experimental Approaches", International Symposium on Energy, Moisture and Climate in Buildings, Rotterdam, 1990.
 - Peixoto, R.A., Paiva, M.A.S., "Mathematical Modelling and Simulation of Central Air Conditioning Systems Aiming at the Analysis and Forecast of Energy Consumption", III National Meeting of Thermal Sciences, Florianópolis, 1990. (in Portuguese)
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English Proficiency and computer skills

All meetings, correspondence and report writing are conducted in English so good command of English is essential. If English is not your mother tongue [native language] please describe briefly your proficiency to speak, read, and write in English. Basic computer literacy (Word, Excel, Power Point) for drafting and editing products is required and advanced computer skills

Knowledge of English

Read: easily

Write: easily

Speak: fluently

Understand: easily

References

Please provide names of two persons who have worked with you on issues relevant to the Montreal Protocol

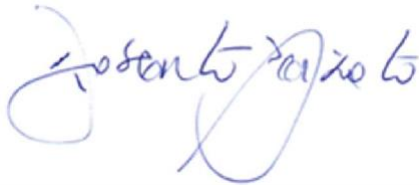
Bella Maranion

Fabio Polonara

Confirmation and Agreement

To be filled by the nominated expert:

I hereby confirm that the above information is correct and agree for review by the TEAP. I have no objection to this information being made publicly available. I also confirm that, if appointed, I will review and agree to abide by TEAP's terms of reference, its code of conduct, operational procedures, and relevant decisions of the Parties as per Decision XXIV/8: http://conf.montreal-protocol.org/meeting/mop/mop-31/presession/Background%20Documents/Decision_XXIV-8_TEAP_TOR.pdf



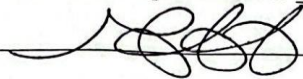
Signature: _____ Date: July 12, 2021

Confirmation by Nominating Government

This section must be completed by the national focal point of the relevant party.

Government: BRAZIL

Name of Government Representative: TÍLIO ANDRADE

Signature:  Date: 10/06/23

To be completed by the national focal point in the case of nomination by the party:

Has the matrix of needed expertise of TEAP been consulted?
<https://ozone.unep.org/science/assessment/teap/teap-expertise-required>

No

Has TEAP been consulted on this nomination?

No

PLEASE RETURN COMPLETED FORM TO: THE OZONE SECRETARIAT

ADDITIONAL INFORMATION - Expectations for members of TEAP, TOCs and TSBs

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Work done for TEAP, its TOCs and TSBs is on a voluntary basis and does not receive any remuneration [funding for their time]. Members from Article 5 countries may be funded for their travel (flight) and per diem (UN DSA) only to relevant meetings, based on needed participation and availability of funding. Members are expected to attend meetings, engage in discussions, and devote time to the preparation of reports including finding and reviewing information to respond to the tasks set out by the Parties, drafting and formatting reports or sections of reports, reviewing reports and preparing presentations. TOC members attend at least annual meetings of that TOC. TOC co-chairs also attend the annual TEAP meeting, and typically two meetings per year of the Montreal Protocol. TSB members attend meetings of the TSB and may be asked to attend up to two meetings of the Montreal Protocol, based on needed participation and availability of funding.

All meetings, correspondence and report writing are conducted in English so good ability to read English plus good command of spoken and written English are essential.

Basic computer literacy (Word, Excel, Power Point) for drafting and editing products is required. Advanced computer/ document formatting skills are an asset.

All appointed members of TEAP, TOCs or TSBs should provide a "Declaration of Interest" prior to a meeting and at least once a year. The DOIs are posted at the Ozone Secretariat website.

In submitting a CV to support a nomination, Parties may wish to provide a short summary of the applicants' expertise and skills, as they relate to the position for which he/she is being nominated, including the main countries or regions worked or experience in (with relevance to Montreal Protocol). Also please indicate if the nomination is in response to a specific category listed in the Matrix of Expertise published by TEAP
<https://ozone.unep.org/science/assessment/teap/teap-expertise-required>

Once appointed, members of TEAP, TOCs or TSBs provide a "Declaration of Interest" (DOI) at least once a year and prior to the group's first meeting. Members provide updated DOIs within 30 days of any changes. The DOIs are posted on the Ozone Secretariat website.

Members review and agree to abide by TEAP's terms of reference, its code of conduct, operational procedures, and relevant decisions of the Parties as per Decision XXIV/8: [http://conf.montreal-protocol.org/meeting/mop/mop-31/presession/Background%20Documents/Decision_XXIV-8 TEAP TOR.pdf](http://conf.montreal-protocol.org/meeting/mop/mop-31/presession/Background%20Documents/Decision_XXIV-8_TEAP_TOR.pdf)