Opening Remarks

4th International Conference on Biofuels Standards; Current Issues, Future Trends

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Good morning everyone. Welcome to the National Institute of Standards and Technology and to this event, the Fourth International Conference on Biofuels Standards.

This conference was organized by:

- Brazil's National Institute of Metrology, Quality and Technology (INMETRO),
- the European Commission's Directorate-General for Energy (DG-ENER), and
- the U.S. National Institute of Standards and Technology (NIST).

This conference is the most recent of the series of meetings organized to provide a forum for discussion of measurements and standards needed to facilitate the development of **sustainable biofuels as global commodities.**

I see many familiar faces in the audience, both technical experts and from the stakeholder community, who have worked with us over the past several years to develop the measurement and standards infrastructure to ensure that our energy portfolio includes biofuels from a variety of feedstocks and in many blend proportions, and meet expanding global need.

As we look back on our history together, the first meeting in the series was a Workshop held in Rio de Janeiro in 2006. At that meeting many technical experts expressed concern that the inconsistency in measurement unit, and analytical methods used to measure specifications could cause confusion when using different documentary standards. At an international conference held in Brussels in early 2007 this issue was discussed further and technical experts were challenged to work to assess differences among fuel standards produced by ABNT, the

Brazilian National Standards Organization, ASTM International, and CEN, the European Committee for Standardization, all widely used globally.

In July of 2007 there was a Symposium in Washington, D.C. which served to expand the number of stakeholders and established the so called "Tripartite Team of international experts", with participants from the U.S., Brazil, and the EU, to address harmonization issues for biofuel standards.

- This work was successfully completed in 2008, and required an incredible effort by the Team with a meticulous assessment of biofuels standards, specifications and analytical methods. In conjunction with this work, NIST and INMETRO began working on Certified Reference Materials for bioethanol and biodiesel for use in calibrating instrumentation and validating measurement results for various biofuel parameters/specifications.
- The EC developed and supported a program to develop and value-assign a series of proficiency testing samples for use as blind tests of the ability of testing labs to make fit-for-purpose measurements of key parameters of/in biofuels.

In Brussels in 2009, at the second international conference on biofuel standards, experts discussed issues around sustainability criteria as they relate to standards development, and **during the third international conference in Amsterdam in 2010,** technical experts and other stakeholders expanded discussions to include the then newly developed aviation fuels standards.

And so in this **Fourth International Conference on Biofuels Standards we all gather again to discuss Current Issues and Future Trends in Biofuels production.**

- We know that biofuels are finding expanded utilization in ground transportation systems, and more recently in aviation systems.
- A new organization, **Commercial Aviation Alternative Fuels Initiative** (**CAAFI**), has been created to address technologies that will be useful for air transport.
- We appreciate support of their members for this conference, and we look forward to continued collaborations.

Biofuels are being produced from different feedstocks, using a wide range of processes. Documentary and measurement standards, and reference data on thermophysical and thermochemical properties of biofuels, play a critical role in assuring consistency and quality of biofuels produced using different processes and feedstocks. The organizers of the

conference are Brazil, the EU and the US, the three largest producers of biofuels, with participation from other countries where biofuel production and utilization is increasing - this group will participate in a panel discussion tomorrow.

You will begin your work this morning with an overview of the state-of-the-art on biofuels used in surface transportation. Tomorrow will begin with an overview of the more recent developments in utilization of biofuels in aviation, and specific issues and requirements for biofuels that are utilized in commercial and military applications.

- One of the conference goals is to identify documentary and measurement standards needed to facilitate trade and applications in new areas, and for new fuels.
- You will have very crucial discussions regarding technical and standards requirements and of course, we must have discussions on the very critical issue of sustainability.

In closing, I wish you much success for this conference; if your past record is an indicator, I know that your work here will have a very positive impact on the future of biofuels and our global energy portfolio.

Thank you.