External Needs Assessment Process

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What is the Challenge?

- Motivation: NIST requires external input to support strategic decision making
 - Earlier /broader involvement of customers / stakeholders
 - Future priorities and challenges
 - External drivers / opportunities
 - Context
 - NIST must ensure that its R&D portfolio is aligned to address the most relevant measurement challenges
- Approach: Implement a workshop / report mechanism to present priorities in the eyes of Key Customers / Stakeholders

Credible Identification of Stakeholder Needs

FY10 Topics Status

- Advancing Photovoltaics (May 11–12, 2010)
 - Draft workshop summary available: http://events.energetics.com/NISTGrandChallenges2010/
 - Opportunities Document targeted for Oct 29, 2010
- ▶ Greenhouse Gas Emissions Quantification (June 2-3, 2010)
 - Draft workshop summary is available: http://events.energetics.com/NISTScripps2010/
 - Opportunities Document targeted for Nov 16, 2010
- Advanced Battery & Energy Storage Technology (Sep 1, 2010)
 - Draft workshop report targeted for late October 2010 http://events.energetics.com/NISTAdvancedBatteries/
 - Meeting with other stakeholders to get additional input

Selection of Future Topics

- Currently Exploring ~ 30 topics
- Criteria
 - Potential importance to NIST
 - Administration, DOC and NIST priorities
 - Unique ability of NIST to meet demand (mission)
 - Existing evidence of importance of measurement
 - Potential importance to US / World (external trends)
 - VCAT
 - Studies / reports
 - Customer input
 - Potential national impact
 - Potential impact of technology
 - Economic
 - Level of innovation
 - Expected value (accounting of risks / uncertainties)

Possible Future Topics

- Forensics
- Broadband communications
- Advanced robotics
- Wind energy
- Electronic materials
- Manufacturing
- Your Ideas?

What's Next?

- Release Photovoltaics Opportunities Document (late October)
- Release GHG Emissions Quantification
 Opportunities Document (mid November)
- Release Battery and Energy Storage Technology Café Summary (late October)
- Conduct 2 large workshops and 3 small workshops during FY11