**U.S. National Work Group on**

**Measuring Systems for**

**Electric Vehicle Fueling and Submetering**

**Operational Guidelines**

# General

This work group shall be known as the “United States National Work Group on Measuring Systems for Electric Vehicle Fueling and Submetering” and is sponsored by the U.S. Department of Commerce’s National Institute of Standards and Technology (NIST). Throughout this document the work group shall be known as the USNWG or USNWG EVF&S. The guidelines in this document describe the structure, responsibilities, and procedures for technical work by the USNWG.

# Objectives

The objectives of the USNWG are to promote, encourage, and participate in the establishment of a comprehensive set of standards for commercial measurement of electricity for both electric vehicle (EV) refueling applications and utility-type submetering, including (1) method of sale requirements; (2) device design, accuracy, installation, and use; and (3) test procedures. The USNWG provides a forum for the development of uniform and appropriate legal metrology standards that harmonize, where possible, with related national and international standards. The USNWG will submit draft commercial electricity measurement standards for recognition by the U.S. Weights and Measures community.

This work will be carried out in the following “subgroups” within the USNWG:

(A) Electric Vehicle Fueling Equipment Subgroup; and

(B) Watthour-Type Electric Meters Subgroup.

Note that each of these “subgroups” may establish smaller subcommittees or task groups that are assigned to work on specific issues or tasks and report back to its respective subgroup.

Terminology:

***USNWG EVF&S*** – The working group (including its subgroups, subcommittees, and task groups) established to develop recommended specifications, requirements, and test procedures for electric vehicle refueling and other electric submetering applications. Its role is to coordinate all activities, start or terminate subgroups, define subgroup’s purview, and approve changes to these operating procedures.

***Subgroup*** – A major group within the USNWG established to address a specific electric metering application. Examples include electric vehicle refueling systems and watthour-type electric submeters. The subgroup has voting rights over all documents and related actions in its purview.

***Subcommittee*** – A formal subset of a USNWG subgroup, including a Chairman and Technical Advisor, assigned to work on one or more projects. It is generally expected that work assigned to a Subcommittee will be of longer duration than for a Task Group. Divergent opinions are noted and sent to the Subgroup for formal resolution.

***Task Group*** *–* An informal group assigned by the Chairman of a Subgroup to collaborate on and complete a short-term task(s) and bring recommendations back to the Subgroup for further discussion. The work of a Task Group is generally expected to be completed within one or two Subgroup meetings. The Subgroup Chairman may elect to appoint a Chairman to the Task Group or defer that decision to the members of the Task Group. A consultative role has no voting rights. Divergent opinions are noted and sent to the Subgroup for formal resolution.

# Membership

The membership shall consist of individuals from regulatory and other government agencies; the service industry; automobile and metering equipment and component manufacturers; consumers; laboratories; electricity utilities; Smart Grid experts; and other industries, organizations, and businesses related to commercial electric vehicle refueling or utility-type watthour submetering applications. To the extent possible, membership shall be drawn from these groups and other interested parties. Individuals may represent more than one category (except during the voting process).

Each candidate must request membership (email or postal mail) from the USNWG Chair or Technical Advisor. Members must represent one of the groups listed above. Each candidate must state their intent to either participate or observe the USNWG work. A candidate who participates in the work is a P-Member, which includes the responsibility of commenting and voting on committee documents and procedures or possibly serving as a subcommittee or task group chair. A candidate may elect to follow the work as an observer or an O-Member, by receiving and commenting on documents and/or attending in-person meetings, video-, audio-, web-, or teleconference, or by email or postal mail correspondence.

USNWG members must declare a separate status (including “P,” “O,” or “No Interest”) for each subgroup established (e.g., Electric Vehicle Fueling Equipment Subgroup and Watthour-Type Electric Meters Subgroup) in which the member has an interest.

P-Members must participate in committee work either through in-person meetings; video‑, audio-, web- or teleconference; or by email or postal mail correspondence to indicate either concurrence with the USNWG actions or to provide input on specific issues. A period of inactivity should not exceed more than twoconsecutive USNWG project/technical meetings. At the third meeting nonparticipation shall automatically change the member status to O for that meeting quorum. The first meeting the member attends after that the status automatically reverts to P unless the member notifies the Chair or TA otherwise. A returning member reinstating their P-Status is responsible for being current on project/technical issues before the group. Each entity (company, agency, organization, etc.) may designate an alternate representative to participate on the USNWG after notifying the pertinent Subgroup Chair and Technical Advisor of its intent. A member may resign from the USNWG or its Subgroups by notifying the Chair and Technical Advisor of his or her decision.

Members who do not respond to inquiries about their ability/willingness to continue participation shall be removed from the roster within 10 days of notification of such act. Such an inquiry to nonparticipating members regarding their absence should be initiated at least once before an anticipated letter ballot.

# Officers

The USNWG and all of its subgroups, and subcommittees shall have a Chair and Technical Advisor.

***Chair***

The Chair of the USNWG and its two major Subgroups shall be a member of the NIST Office of Weights and Measures (OWM) Staff. Subcommittee chairs shall be selected from the membership (P‑Members) of the Subgroup under which it falls and approved by a majority (defined as at least 51 %) of the Subgroup membership. Task Group chairmen may be appointed by the Chairman of the Subgroup under which it falls or may be selected by consensus (defined as at least 51 %) of the “P” members of the Task Group. The Chair ensures that work progresses according to established target dates and to an appropriate and satisfactory conclusion. The Chair acts in a national capacity giving equal attention to all proposals and suggestions by USNWG members and other stakeholders. The Chair may represent an individual organization's views by indicating that the position taken is on behalf of a separate entity. A suitable new or alternate subcommittee Chair should be selected from the membership (P-Members) and be approved by a majority of the USNWG membership if the incumbent Chair is unable to fill the unexpired two-year term.

Vice-chairs should be also nominated using the process and criteria above. They would ensure continuity of the project in case the Chair cannot perform their duties.

# *Technical Advisor*

# The Technical Advisor (TA) to the USNWG and its Subgroups shall be a member of the NIST OWM Staff. Subcommittee technical advisors shall be selected from the membership (P-Members) and approved by a majority of the USNWG Subgroup membership. The technical advisors will act technically and administratively to coordinate and promote the development of legal metrology standards. The Technical Advisor shall prepare agendas and facilitate the work of the USNWG by ensuring the proper analysis and development of agenda items and summaries of the USNWG findings. The Technical Advisor shall represent the USNWG position in the standards development process in International Committees of Legal Metrology. The TA has the obligation to implement the operating procedures herein defined.

# Term of Office

***Chair***

The term for the Chair shall be two years.

In the case of a vacancy the membership shall act to appoint a new Chair within 30 days of the vacancy.

# Technical Subcommittees and Task Groups

The formation of a special technical subcommittee within the USNWG membership may occur when the scope of the work on legal metrology standards requires a separate or special focus to achieve its goals. A subcommittee may be disbanded by a majority vote of the USNWG and/or when the group has successfully completed its project.

The Chairman of each Subgroup may also appoint informal “Task Groups” to collaborate on and complete a short-term task(s) and bring recommendations back to the Subgroup for further discussion. The work of a Task Group is generally expected to be completed within one or two Subgroup meetings. The Subgroup Chairman may elect to appoint a Chairman to the Task Group or defer that decision to the members of the Task Group.

# Meetings

The USNWG or its subgroups Chairmen will call for a meeting of its members either in-person, by video- , audio-, web-, or teleconference, at any time when all of the following conditions are met:

1. The meeting is within the NIST budget,
2. One-fourth or more of the group’s membership agrees the project/technical issue warrants that the event should be held,
3. A meeting could be called by minimum 5 voting members.

A notice of the meeting date and location must be distributed to all USNWG members at least 21 days prior to the meeting.

## Agendas

The Technical Advisor or an appointed alternate and the Chair will develop meeting Agendas. Any USNWG member may submit an agenda item to the Chair and Technical Advisor.

Submission of an agenda item should be on the USNWG Subgroup Agenda Item Submission Form. Members are encouraged to submit well-developed agenda items in advance of the meeting. Early submission of an agenda item allows for (1) proper analysis of the item by the Technical Advisor; (2) the USNWG Subgroup membership to study and distribute the item among their stakeholders; (3) more thorough discussions at the meeting; and (4) due process of the issue(s). Each submission should be accompanied by a description of the issue and any supporting documentation. Items submitted must include sufficient background information. Members who are unable to participate in a meeting must provide a well-developed agenda item that can be evaluated on its own merit or have an alternate present the issue. In the absence of the submitter, the USNWG Subgroup will need to determine why the item is relevant and what should be the outcome of the issue. Prior to the beginning of each meeting items submitted after distribution of the meeting agenda will be considered for inclusion on the agenda on a case-by-case basis depending on the national need to address that issue, their complexity, and size of the existing agenda. Priority items should be marked “urgent” and include a narrative explaining why the issue requires a priority status. Priority items are considered issues that involve a court case, pre-emption by a federal statute, conflicts with an international standard, or one that could affect health and safety. A majority vote of the USNWG Subgroup is required, for an item to receive priority status and be placed ahead of other items already on the agenda.

New topics, especially new regulation drafts (HB) and decisions related to communications with NCWM, shall not be included in any agenda if it cannot be distributed 21 days prior to the meeting.

## Summary of Work

A draft summary must be available within 21 days of the conclusion of a technical meeting or project for review, input, and approval of the USNWG. The summary should include the group’s findings and recommendations. A new or revised standard shall include a summary of changes and the rationale for making those changes and a corresponding list of any associated comments. A final draft summary must be distributed within 45 days of a completed project or end of a technical meeting. USNWG Subgroup members must indicate approval, submit questions, or request corrections to a summary within 14 days of receipt of that document.

At the discretion of the Subgroup Chairman, Subcommittees and Task Groups may also be asked for a formal, written summary of its meetings and any recommendations or may be asked to present findings to Subgroup members during a Subgroup meeting.

# Voting

Only P members have the right to vote. In the event that a consensus (defined as a majority voting participants, P-membership) cannot be reached on an issue or when substantial changes are made to a Subgroup meeting summary or any technical document, then the Subgroup members must approve that project/action by a vote. A quorum consisting of at least 25% of the registered, P-members of the Subgroup must be present for a vote. In the event that a quorum is not present for a vote, the Technical Advisor shall ballot the P-membership of the entire Subgroup. Occasionally, the USNWG, including all of its Subgroups, may need to address overarching issues which affect the USNWG as a whole and both Subgroups may be asked to vote on those issues. For such issues, a member who is listed as a “P-member” on both Subgroups is counted only once when determining the total number of registered P‑members voting, and, thus, may cast only one vote.

Final regulation/code documents (HB drafts) shall be approved, prior to submitting for consideration and adoption by the national weights and measures community, only by letter ballot to the entire subgroup under whose purview these requirements fall. An electronic ballot (sent to the entire roster) is successful if a majority of the active P members of the USNWG or subgroup votes affirmative.

USNWG members may vote during the conduct of a meeting where a quorum is present or be balloted electronically or by a postal mail ballot. A majority of the votes cast within 21 calendar days of the ballot being sent is required to approve a project/action. Members shall include an explanation of their reason(s) (and alternative language, where appropriate) when casting a negative ballot.

Each entity (company, agency, organization, etc.) represented on the USNWG has one vote. No proxy votes are accepted (to ensure each vote is cast based on an examination of the latest data, discussions, etc. by all groups affected by a(n) project/action). A proxy would be defined as a vote by any person from a different organization than the registered P-member. Alternates from the same organization may vote, so long as they are designated by the P-member prior to the meeting and there is only one vote per registered P member.

# Fees

Members of the USNWG are not assessed fees for participation in the USNWG or its Subgroups, Subcommittees, or Task Groups.

**Amendment of the Guidelines**

The guidelines may be amended by a vote at any meeting when the proposal outlining changes to the guidelines are distributed to the membership at least 30 days prior to the meeting.

# Timelines for Projects and Tasks

This table sets limits for the duration of specific USNWG projects and tasks.

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| Timetable for USNWG Tasks |
| Submit an Agenda Item\* | 21 days prior to meeting\*\* |
| Distribute Draft Meeting Summary to Members for Review and Approval | 21 days after meeting concludes |
| Members Provide Input on Draft Meeting Summary or Project Summary | 14 days after receipt of the document |
| Distribute Final Summaries to Members | 45 days after meeting or project is complete |
| Distribute Notice of Meeting to Members | 21 days prior to meeting event(14 days prior to an online meeting event) |
| \* A submission form can be obtained at: <http://www.nist.gov/pml/wmd/usnwg-evfs.cfm>\*\*Additional items submitted less than 21 days before or during the meeting must be well developed and will be considered on a case-by-case basis by the Subgroup. |