



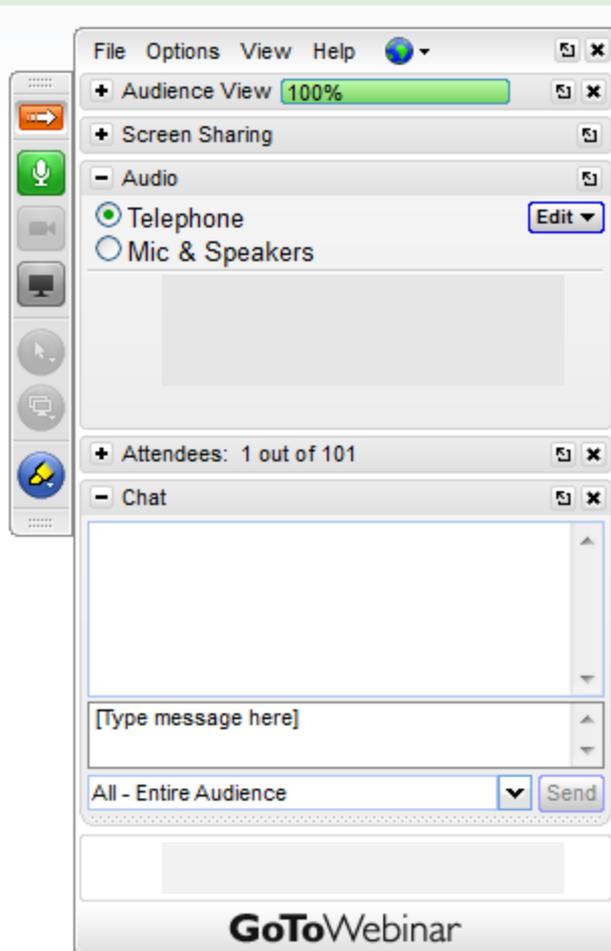
# **Energy Storage Safety Outreach and Incident Response Working Group Meeting**

November 4<sup>th</sup>, 2015

*Hosted by*

David Rosewater  
Sandia National Laboratories  
On Behalf of the ESSWG

# GotoMeeting Housekeeping



- All participant lines are not-muted. Please mute your own line , except when talking, so that background noise does not disrupt conversation.
- Do not place the line “on hold” as this will cause music to play
- If you have a question or need assistance during the meeting, **please speak up**

**This webinar is being recorded for note taking purposes.**

# Energy Storage Safety Working Group (ESSWG) Webinar Agenda



02:30 pm – 02:35 pm	Welcome and GotoWebinar Housekeeping
02:35 pm – 02:45 pm	Welcome and Introductory Comments - Agenda Overview
02:45 pm – 02:50 pm	Website (Issues update)
02:50 pm – 03:05 pm	SO&IR Survey Responses
02:50 pm – 03:05 pm	Stakeholder Outreach Plan
03:05 pm – 03:30 pm	Group Discussions - Next Meeting Info

# Introductions

Please state your name and organization

# Energy Storage Safety Outreach and Incident Response Working Group Scope of Work



- Supported by DOE Office of Electricity Energy Storage Program
- DOE OE Energy Storage Safety Plan developed by ESS WG and focused on safety associated with all stationary ESS
- Projects to address gaps, needs and opportunities in three areas:
  - Safety Validation and Risk Assessment (Ferreira SNL)
  - Codes and Standards (Conover PNNL)
  - **Safety Outreach and Incident Response (Rosewater SNL)**

# Website Update



**Issues:** Contractual problems are preventing website updates. These are expected to be resolved soon. I will send out the new info when it is back up.

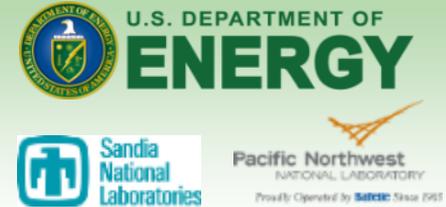
## Update 1:

- Changing to “Education” to “SO&IR”
- Editorial Changes
- Adding Meeting Schedule and Materials
  - Webinar Slides (.pdf)
  - SO&IR Survey (.doc)

## Planned Updates:

- Creating special sections for stakeholder groups
  - First Responders
  - Electrical Inspectors
  - Electrical Contractors
  - Regulators
- Upgrading schedule to a full calendar-of-events
- Adapt to working group needs (Input Required)

# Safety Outreach and Incident Response Survey Results



- 6 Responses
- Represented from: government, certification labs, first responders, and manufactures
- Good information on who is interested in what
- **Valuable feed back on Format**

## **4. Are there other tasks you would like to see this group work on?**

- Develop a deployment strategy
- Reach out to battery system end users and those with safety concerns
- Provide guidance on designing batteries safely based on location, environment, and use
- Coronation with CSR working group on building and fire codes
- Coronation with R&D working group on ESS testing, fire suppression testing

## **5. Do you have any suggestions or feedback on the format of meetings?**

- Webinars are good, Recommend appointing a scribe to keep notes.
- it may be useful to identify different groups participating (vendors, consultants, system owner/operators, state/gov't representatives, etc)

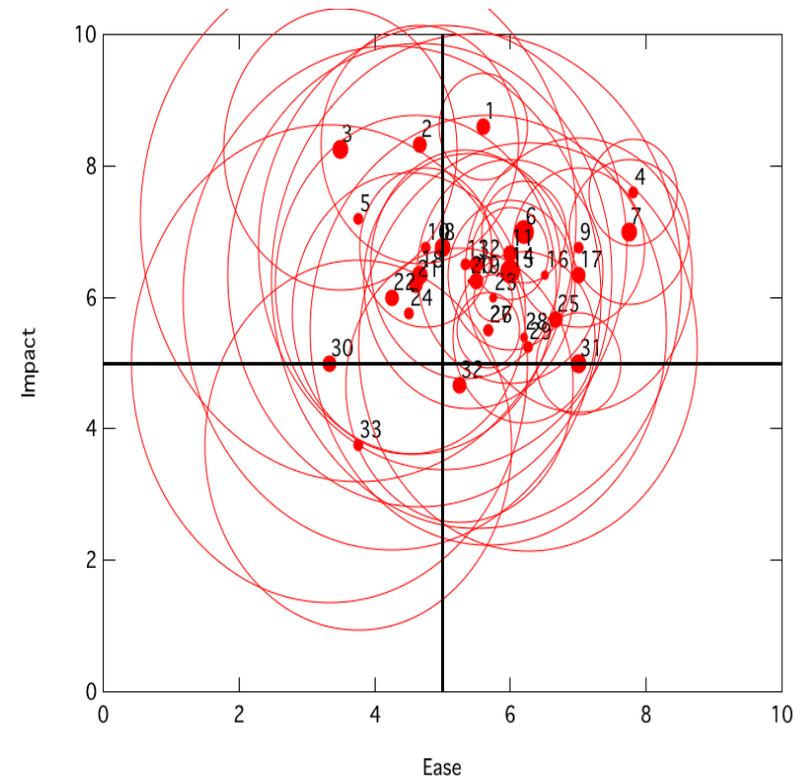
# Energy Storage Safety Outreach and Education Working Group (cont'd)



## Top Issues in Safety Outreach and Incident Response

- A. Provide guidance and information on ESS installation and protection design
- B. Provide guidance and information operational safety including thermal management
- C. Develop first responder training material for responding to an ESS fire
- D. Develop guidance and information on ESS safety analysis through energy storage websites, the ESS Handbook, and by offering safety analysis courses to developers and startups
- E. Promote first responder knowledge and confidence by developing a template for providing information to and working with local fire departments and by make safe methods available to first responder groups through demonstration (practice system fire), videos, guides, and courses.
- F. Provide links to educational material on cyber security on energy storage websites
- G. Provide guidance and information on the safe transportation/delivery of energy storage systems

Safety Outreach and Incident Response Quad Chart



# Stakeholder Outreach Plan



Stakeholder Group	Print 2-4 pager	Full report (guide)	Magazine/on line publication article	Self-guided training	1+/- hour webinar (rec.)	Conference or workshop presentation
Building Owners, Universities, Industry/manufacturing plants, Utilities, Federal, state and local Agencies and lenders	Something for City and counties. (non-Legislative)	Compliance Guide	NIBS			ESS 101 – what it is and how it is of value in our EE portfolio
Manufacturers of ES components or systems, building and system designers, specifiers and utilities	Understanding testing and certification for ESS product safety validation					ESA General Meeting (April 2016), EESAT ESS safety
Building, electrical, fire officials and inspectors as well as testing laboratories and certification entities and utilities		ESIC Guide to safety				ICC conference (educational track)
Builders, contractors, commissioning entities, utilities, etc.						IEEE PES Meeting
First Responders, facility managers, operations and maintenance personnel, etc.				NFPA	UL- Regional Training Events	UL- Regional Training Events
Legislative and regulatory entities and policy makers, etc.	State and local entities					
Insurance, banking, underwriters, etc.						
General Public	Fact Sheet					

# Continued Group Discussion

## Next Meeting

Dec 2<sup>nd</sup>, 2:30 pm EST (11:30 am PST)

**David Rosewater, PE**  
Energy Storage Technology & Systems  
Sandia National Laboratories  
dmrose@sandia.gov  
(505) 844-3722