



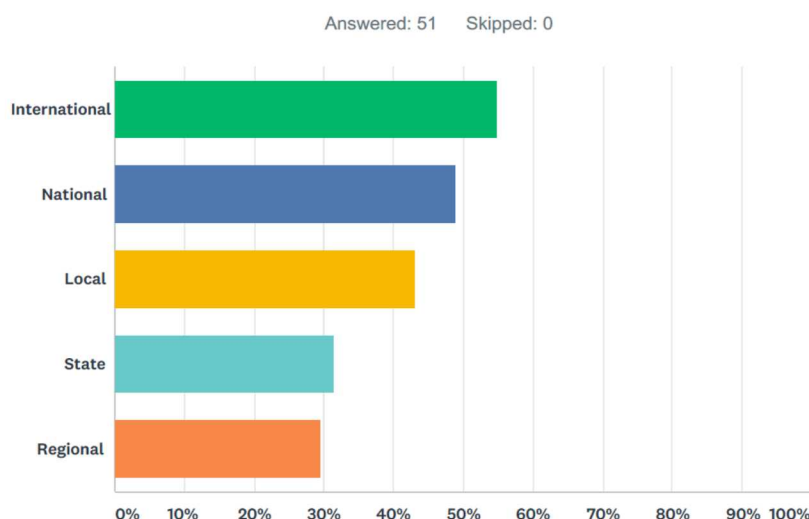
# ENERGY STORAGE SYSTEM SAFETY

**Survey Results: A summary of a few high-level takeaways from the recent stakeholder survey**

## Introduction

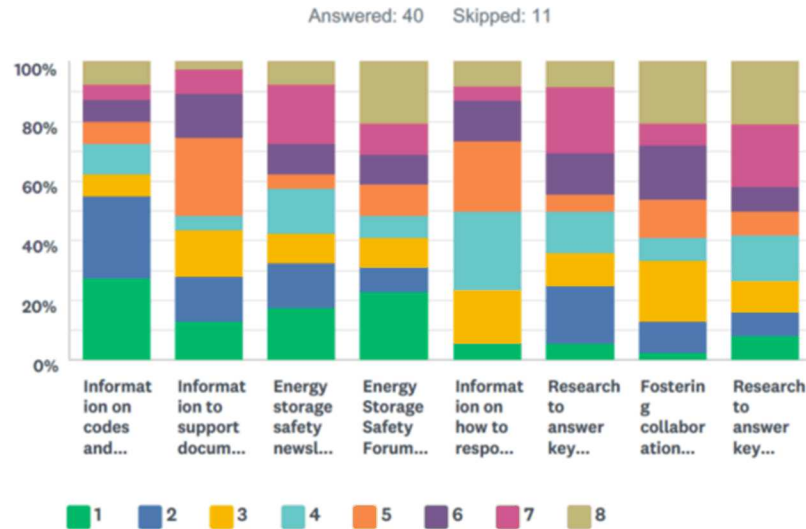
In late July 2018, the Energy Storage (ES) Safety Collaborative sent a survey to their stakeholders. The survey was designed to gather input and data to “support the timely deployment of safe energy storage technologies.” The survey would also help to inform decisions related to enhancing ES efforts while “streamlining opportunities for collaboration amongst all relevant stakeholders.” A total of 17 questions were included in the survey: 13 multiple choice questions and 4 open response questions. A total of 51 responses were collected and presented here are some of the high-level takeaways.

We First asked a number of questions about who the stakeholders are and their perspective on energy storage technologies and systems. The respondents were roughly 20% from Utilities, 10% manufacturing, 10% first responders, 10% contractors/installers, 8% system integrators, 8% testing labs, and 8% academia, with the remaining quarter from a mired of other organizations and entities. One surprising finding was that the majority of respondents indicated that they were involved with energy storage at an international level (see below). This gives us confidence that our work on international standards, such as with the IEEE or IEC, will be relevant to a large proportion of the stakeholder community we work with.



Q2 Please indicate the scale of your role and involvement as it relates to energy storage technology. Check all that apply

Q8 The list below consists of current and/or recent efforts conducted in support of the timely development and deployment of safe energy storage technologies. In your opinion, which of these efforts do you believe provided the greatest value? (Rank the items in priority from 1-8 where 1 is the most valuable.)



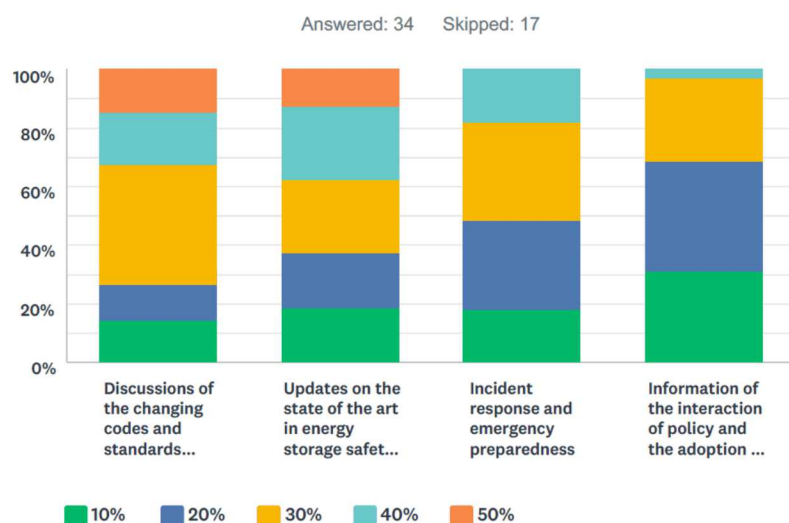
As for our specific efforts conducted to support the safety collaborative, we asked what your perspective was on what was most valuable. The top three results for the proportion of respondents ranking the activity as #1 were (see green bar heights above):

1. Information on codes and standards development and adoption
2. Energy Storage Safety Forum (annual)
3. Energy storage safety newsletter

Additionally, our work to provide “Information to support documenting and verifying the safety of an ESS installation” was scored 2nd overall when weighting response rankings. This feedback helps us focus future activities directly on what is most important to you.

Table 1 Q8 - Top scoring efforts

	1	2	3	4	5	6	7	8	TOTAL	SCORE
Information on codes and standards development and adoption	27.50% 11	27.50% 11	7.50% 3	10.00% 4	7.50% 3	7.50% 3	5.00% 2	7.50% 3	40	5.78
Information to support documenting and verifying the safety of an ESS installation	12.82% 5	15.38% 6	15.38% 6	5.13% 2	25.64% 10	15.38% 6	7.69% 3	2.56% 1	39	4.95
Energy storage safety newsletter	17.50% 7	15.00% 6	10.00% 4	15.00% 6	5.00% 2	10.00% 4	20.00% 8	7.50% 3	40	4.78
Energy Storage Safety Forum (annual)	23.08% 9	7.69% 3	10.26% 4	7.69% 3	10.26% 4	10.26% 4	10.26% 4	20.51% 8	39	4.51



Lastly, we wanted to collect information on how best to organize the energy storage safety forum (Scheduled for March 2019). Respondents Indicated that their top two topics were as follows:

- Discussions of the changing codes and standards environment and applications of codes in practical settings
- Updates on the state of the art in energy storage safety technology and design

Given this strong response from the stakeholder community, we will be allocating time within the energy storage safety forum to these topics accordingly, while maintaining a robust track for incident response and emergency preparedness, as well as information of the interaction of policy and the adoption of energy storage.

Q 17 We realize our technical program should be balanced to meet the needs and interests of the stakeholder community. Please tell us what proportion of the program we should assign to the following topics. (Please make sure that the sum of your responses equals 100%, otherwise we will scale your response accordingly.)

These are just some of the results we were able to glean from your feedback. Thank you for your continued engagement and help as we work to promote the safe and effective deployment of energy storage on the electric grid.



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