



ENERGY STORAGE SYSTEMS

SAFETY & RELIABILITY FORUM



U.S. DEPARTMENT OF
ENERGY



Sandia
National
Laboratories



Pacific Northwest
NATIONAL LABORATORY

Takeaway– Thoughts from the Chair



- **Safety and Reliability part of design** – Imre Gyuk
- **We Don't Compete on Safety** – Dana Schulze
- **Bipartisan legislation focusing in storage**
– Senator Martin Heinrich
- **95% reduction in wires for sensors, cooling and crash solutions** – John Warner
- **Cyber Security, Recycling, full life cycle considerations** – Imre Gyuk
- **Communication from R&D to commissioning important, ongoing effort**

Next steps



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- **Need a shared database – Dana Schulze**

- Global Energy Storage Database energystorageexchange.org
- How can we share more in a non-punative way?

- **Collaborate on Data – Joe Thompson**

- EPRE is assessing data from the system side and they welcome data
- Sandia is assessing data from the cell side and we welcome data and buy in for open source software development
- What collaborative body can we develop on the R&D side to not compete on safety and make a rising tide that raises all boats

- **Network, partner and team**

- I hope this meeting sparks ideas for independent and collaborative work

- **Gaps given less attention at this Forum**

- Cyber security, recycling, full life cycle considerations

- **Communication from R&D to commissioning ongoing effort—Many working groups**

- Join and grow ESS Collaborative – essforum@sandia.gov

Thank You to the Staff



- Cher Rigby – Coordinated this meeting
- David Sokoloff – Website and A/V
- Anna Aguilar – Design
- Sharon Ruiz, Lindsay Jones, Jil Walker, Estela Zapata-Rodriguez – Registration
- Imre Gyuk – long standing support that makes this meeting and much of the work behind it possible



Thank You For Participating!



- **Questions, comments or suggestions to**

- Conference Chair – Summer Ferreira srferre@sandia.gov
- ESS Forum essforum@sandia.gov
- Website – Released presentations and other information available at:
<https://share-ng.sandia.gov/ess/ess-safety-forum-2019/>

- **Next year join us in the Pacific NW in the spring**

