



ENERGY ACADEMIC GROUP
NAVAL POSTGRADUATE SCHOOL



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NPS ENERGY ACADEMIC GROUP
BATTERY WORKFORCE DEVELOPMENT

Battery Workforce Advisory Group (BWAG)

Meeting Agenda & Action Planner

Program Year 1 (2023-24) / Phase I(b)

Meeting Date & Time	March 20, 2024 – 1000 PT / 1300 ET
Core Members in Attendance	Dhar, Vijay; Sims, Mary; Johnson, Stacey; Kotlier, Bernie; Kildee, Brian
Core Members Absent	F. Khan, A. Dupuy
Guest Attendees & Roles	n/a
Relevant Documents <i>Preparatory reading to accompany topic discussions</i>	<ul style="list-style-type: none"> - Boston Biotech Best Practices- Dr. Susan Windham Banister - University of North Carolina- Non-resident Admission Policy - Texas Administrative Code- Reserving Spots in State Schools for In-State Students
Link to Previous Minutes	Agenda 5

Vision Statement

Increase and improve the domestic battery supply chain workforce to a level that supports effective self-sufficiency and enhances national security in accordance with goals established at the Federal level.

Focusing Goals
for this Meeting

1. State of the study
2. Member activity
3. Preparatory work for Phase II



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Agenda

Item #	Time Window	Topic Title - Presenter	Notes
1	1000-1010	State of the NPS/EAG BWD study M. Sims	<ul style="list-style-type: none"> - Final editing for submission on 01 April. - Preview by 25 Mar.
2	1010-1040	Member Updates NABWC NENY IFPTE	<ul style="list-style-type: none"> - Any activity relevant to: <ul style="list-style-type: none"> o Study o Proposal #1 o Other
3	1040-1100	New Business & Action Planning	<p>Next meeting 01 May 24 @ 1000</p>



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Notes

NPS (M. Sims):

- Mary opens introducing new team members (D. Jones, G. Douros).
- Updates on phase 1b progress, indicating desire for BWAG members to review report before final distribution. Requests focus on the proposals and their content, and solicits their suggestions. Indicates that comments will need to be back to her by the end of the following week. Members agree to review and return by EOW 3/29.
- Mary states parallel effort report is now with Betony Jones / DOE to present to congress. Bernie indicates that Betony liked the current (abridged) version of report more than the prior version, though is unsure which of the recommendations will be integrated or presented to congress. New submission focused on strategy over tools, as per Betony's request.

NABWC (B. Kotlier/V. Dhar):

- WRT CAR assessment, Bernie notes it's likely that the only significant difference between the current publicly available draft of CAR BIETNA and the final version will be inclusion of DOE veneer / stamp. DOE's lawyers will take a month or two to review it, perhaps making very minor changes, before publishing the final edition.
- Mary questions if the draft is publicly available and Vijay confirms that it's available for download on CAR website.

NENY (S. Johnson):

- Submitted the phase 2 tech lab designation. Funding will be used for the full buildout of a laboratory for national use in the same complex as the NY battery center / Whittingham's lab. Expresses desire for one-stop-shop for center showcasing battery lifecycle. Virtual site visit will be April 4th.
- NSF kickoff highlighted interconnectedness of multiple battery efforts nationwide, emphasizing large federal investment. Nonprofit funds used to bridge gaps in funding that federal dollars will not cover.
- Vijay mentions MIT / NSF biotech engine as potential benchmark for battery engines, suggests Stacey takes best practices for NSF biotech engine which has been greatly successful over past decade. Vijay offers his contacts at NSF and MIT (linked in notes). Stacey agrees that this would be a good avenue for best practices or advice.
- Stacey mentions need to pay attention to external factors, citing China's flood of cheap batteries to market as destabilizing force. Bernie reinforces that this happened with the



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solar panel market, citing need for industrial policy, and adding that market forces alone will not regulate this phenomenon. Vijay adds example of rare earth mining in NV ([MP Materials](#)) losing out to low-cost foreign competitors.

- Bernie adds that much coordination needs to take place. Mary concurs, saying that this coordination is central to proposal #1, requesting ideas from BWAG for verbiage to beef up proposal #1.
- Stacey questions where the authority lays once C2 groups have identified issues—cites importance of ability and authority and funding to be able to enact changes. Mary agrees, citing crucial importance of authority component of ABC offices, adds that we must “embolden the remit” of the body that will act in this capacity.
- Bernie adds that offices must be distilled to a lean body of people who can best make consensus, adds need for **authority** and **funding** to enact change.
- Mary and Bernie agree that the USA has not done anything boldly or quickly enough to counteract China’s efforts, which we are 15 years behind of. Stacey adds that without a regulatory body, industry will be hesitant to fund development and new projects, as they know that the current subsidies will run out.
- Bernie adds anecdote of SKUNKWORKS project to get jet aircraft built in WWII—the model and precedent exist to activate the industrial base at rapid speeds.
- Vijay questions if *authority* should be swapped for *mission*. Bernie and Mary agree that the offices need all three: Mission = Authority PLUS Funding. Otherwise, the project will not outlive the current congress or administration who is providing these financial incentives.
- Stacey adds that there is a need to make these decisions for matters of national security, citing lack of urgency in current effort. Bernie concurs adding that people are *talking* about national security, but nobody is *acting* like this is a matter of national security.
- Bernie adds that DOD is correct vehicle (versus DOE) to get this project moving, Mary concurs.

IFPTE (B. Kildee)

- Brian echoes Bernie’s call for industrial policy. Brian adds that the flooding of the market by Chinese batteries was willingly allowed by U.S. policy. Policy changes must include engineering, including reshoring of engineering jobs to the U.S. “Anything that is manufactured is engineered”.
- Progress is being made with Engineering Center in Tennessee-- TVA and American Federation of Teachers (AFT) are partners.
- Price, Policy, and Perception are barriers to young students’ entry to ENG fields. AFT is helping with the perception issue.



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<ul style="list-style-type: none"> - Brian offers to complete a "hub of hubs" in the next two weeks. - Grant opportunities with DOL have recently been released, grant writing for interested groups will increase. Stacey offers support with grant writing for important grants even outside of her organization's remit to ensure that "the money goes to places that will benefit from it"—Brian and Vijay agree. - Vijay adds need to combine education and manufacturing efforts, citing that innovation that originates in the U.S. all goes to China/abroad because we lack the ability to commercialize our innovations. This intersectionality must be inscribed at a policy level, nationally. - Bernie adds that the way we treat IP needs to change—our homegrown innovation and IP goes all over the world for others to profit from. American taxpayers fund this R&D thru national labs etc. but don't see benefit in their own economy. Bernie goes on to add that we have tariffs that we can add to restrict cheap products flooding the market. - Vijay adds that we can be offensive and defensive with tariffs and policy choices.
<ul style="list-style-type: none"> - Mary notes that NPS has strength in STEM and technological capacities but lacks actual battery-focused curricula. Questions whether it is the same at Binghamton U., which is a premier institution for battery tech. - Bernie agrees; even with Stan Whittingham, there is no battery-specific program. - Stacey adds that US students are being pushed out by foreign students who pay more money to attend US institutions.
<ul style="list-style-type: none"> - Brian adds that 4-year ENG students are still leaving programs without knowledge of proprietary software. - All NENY programs MUST have hands-on components to combat this trend. Shortage of certification engineers is exacerbated by the fact that the few engineers being trained are poached by private employers upon certification.
<ul style="list-style-type: none"> - Bernie questions to what extent phase 1(b) can include policy themes, which are disparate from the goal of workforce development. Mary adds that some proposals incorporate policy measures, and that once her proposals are selected, she expects to have some leeway to tackle other challenges like policy.
<ul style="list-style-type: none"> - Bernie urges the importance for a comprehensive set of recommendations to be sent to the white house to be enacted expeditiously. - Mary responds that 1(b) can address and encompass these issues, and is a step in the right direction.



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Action Planner

Item #	Action Commitment What was the agreed upon next step?	Action Agent Who will be in charge of completing this item?	Timeframe When will this be completed?
1	Review phase 1(b) document and give input to Mary	All	NLT 3/29
2	Advisory work for "hub of hubs"	Brian	By 4/3
3			
4			
5			
6			
7			
8			
9			
10			