



WIEB Board Meeting Minutes

April 18, 2018

Western Interstate Energy Board (WIEB) Member Representatives Present: Dr. Laura Nelson (UT), Angela Dykema (NV), Brian Goretzki (AZ), Jeff Blend (MT), John Chatburn (ID), Jessica Reichers (OR), Janea Scott (CA), Tony Usibelli (WA), Kathleen Staks (CO), Amy Sopinka (BC), and Christine Lazaruk (AB).

WIEB Staff Present: Maury Galbraith, Thomas Carr, Richard McAllister, David Manning and Holly Taylor.

Others Present: Laura Andersen (Bureau Chief, Montana Energy Office, Department of Environmental Quality), Vijay Satyal (Western Electricity Coordinating Council)

Audio Recording: Available upon request.

Board Actions:

1. Approved the WIEB FY 2018-19 Work Plan and Budget with the following authorizations:
 - 1) Authorize the acceptance of funds in the areas of radioactive waste, regional electricity cooperation, transmission planning, distributed energy resources, and emerging energy markets;
 - 2) Authorize the Executive Committee (Chairman, First Vice-Chairman, Second Vice-Chairman, and Treasurer) to approve, between meetings of the Board, the acceptance of funds in other areas, upon the written advice of members of the Board;
 - 3) Authorize the Executive Committee to approve merit increases and the exact cost-of-living increase for employees based on the increase in the consumer price index for the Denver region;
 - 4) Adopt a funding reserve equal to 2 times the annual core expense of the Western Interstate Energy Board;
 - 5) Reauthorize WIEB's Reserve Expenditure Plan with a funding limit of \$100,000 for FY 2018-19; and

- 6) Authorize the Executive Director and Treasurer to act as the financial agents of the Western Interstate Energy Board.
2. Approved the following selection criteria for Reserve Expenditure Plan projects:
 - a. Does the project address an important energy issue in the West?
 - b. Does the issue have multi-state/province implications?
 - c. Is the issue being examined by other organizations?
 - d. Are other organizations better situated to examine the issue?
 - e. Are there opportunities to productively partner with other organizations to examine the issue?
 - f. Will work on the issue provide practical information regarding energy projects in the West?
 - g. Is there an opportunity to leverage additional funding to support the work on the issue?
 - h. Will work on the issue "enhance the economy of the West and contribute to the individual and community well-being of the region's people?"
 3. Elected the following officers of the Western Interstate Energy Board for FY 2018-19:
 - Dr. Laura Nelson (UT) – Chair
 - Angela Dykema (NV) – First Vice-Chair
 - Kathleen Staks (CO) – Second Vice-Chair
 - Jeff Blend (MT) – Treasurer

Welcome and Introductions

Dr. Laura Nelson (UT), WIEB Board Chair, called the meeting to order at 9:00 a.m., welcomed her fellow WIEB Board members, and began the meeting with introductions.

Executive Director Report

Maury Galbraith presented the Executive Director Report, which included discussion of on-going WIEB projects and the proposed FY 2018-19 Budget and Work Plan.

WIEB Projects

Maury provided the Board Members with high-level overviews of the following WIEB projects:

- WIEB – U.S. DOE Solar Energy Technologies Office Award
- WIEB – Stanford University Western Interconnection Data Analytics Project (WIDAP)
- WIEB – Stanford University Western Electricity Market Forum and Training
- WIEB – Center for New Energy Economy (CNEE) Resource Planners Forum

- WIEB – Flexibility Assessment
- WIEB – U.S. DOE High-Level Radioactive Waste Cooperative Agreement.
- WIEB – Stanford University Summer Internship Resource Adequacy Project
- WIEB – Western Governors’ Association Collaboration Projects

FY 2018-19 Budget and Work Plan

Maury presented the proposed WIEB FY 2018-19 Budget and Work Plan. He began by reassuring Board Members that although income is down, expense is up, and expense exceeds income in the proposed budget, WIEB’s financial position remains strong.

WIEB projects that income will be down in FY 2018-19 due to New Mexico and Saskatchewan not submitting membership dues. New Mexico did not pay dues in FY 2017-18 and Saskatchewan has indicated that it will be leaving WIEB. Laura Nelson (UT) asked about efforts to bring New Mexico and Saskatchewan back into the WIEB fold. Maury indicated that communications with Saskatchewan were positive and that the province understands it is welcome back anytime although Saskatchewan is not electrically connected with the Western Interconnection. Maury indicated that WIEB will be reaching out to New Mexico and hopes to bring the state back into the fold. Maury indicated that WIEB outreach efforts in Colorado were successful and that Colorado will be paying its membership dues in FY 2018-19. He also indicated that WIEB is working with Arizona and Montana on efforts to diversify the states’ WIEB funding obligations across multiple state agencies. Maury also briefed Board Members on efforts to establish a cooperative agreement with U.S. DOE to fund increased state participation at Joint CREPC-WIRAB Meetings.

WIEB projects that expenses will be up in FY 2018-19 due to three primary factors: (1) increased staff travel to states as part of the U.S. DOE Solar Energy Technologies Award; (2) increased office rent due to expansion of WIEB office space; and (3) increase health care expense. Maury briefed Board Members on his consultation with the WIEB Executive Committee and the decision to expand the WIEB office space. Both WIEB and the Western Governors’ Association were experiencing shortages of office space and a unique opportunity to expand into adjacent office space was attractive to both organizations.

Next Maury discussed steps taken to achieve a more accurate accounting of the WIEB financial reserves. The new methodology relies on results of WIEB’s annual financial audit and provides for a more accurate separation of the WIEB reserves from the WIRAB reserves. The WIEB financial reserve is projected to total \$1.8 million as of June 30, 2018. Subtracting two years of projected core expense results in surplus reserves of \$1.2 million. Dividing the amount of surplus reserves by 9 years, the anticipated duration of the Reserve Expenditure Plan (REP), results in an annual spend rate of \$124,600 per year. Based on this analysis, WIEB staff

conservatively recommended budgeting \$100,000 for the REP in FY 2018-19. Finally, the major take-away from the budget analysis was that although projected expenses exceed projected income by \$49,800; this result is solely attributable to expenditure for the Reserve Expenditure Plan. Maury indicated that WIEB's financial position remains strong and encouraged Board Members to ask questions or make suggestions.

Laura Nelson (UT) asked if the WIEB Board would be evaluating and reauthorizing the Reserve Expenditure Plan on an annual basis. Maury responded yes, that the WIEB Board would be asked to reauthorize the program annually.

Jeff Blend (MT) asked if the estimated WIEB core expense and the targeted level of financial reserves would be evaluated on an annual basis. Maury responded yes, that WIEB's core expenses are expected to change annually and that the reserve target (equal to two years of core expenses) would also change annually.

Christine Lazaruk (AB) questioned whether the labor expense associated with running the REP is accounted for in the FY 2018-19 budget. Maury responded that the \$100,000 budgeted for the REP includes \$33,100 in direct labor expense and \$66,900 for project expense. Christine then questioned why the budgeted expense only exceeded income by \$49,800. Maury explained that, although the REP is budgeted at \$100,000 for FY 2018-19, the projected drawdown of WIEB financial reserves is only \$49,800. This result reflects the conservative approach to the REP and the drawdown of WIEB financial reserves.

Laura Nelson (UT) suggested that the WIEB Board consider the budget recommendation and specific authorizations. Maury summarized the staff recommendation that the Board approve the proposed FY 2018-19 budget with the following authorizations:

- 1) Authorize the acceptance of funds in the areas of radioactive waste, regional electricity cooperation, transmission planning, distributed energy resources, and emerging energy markets;
- 2) Authorize the Executive Committee (Chairman, First Vice Chairman, Second Vice Chairman, and Treasurer) to approve, between meetings of the Board, the acceptance of funds in other areas, upon the written advice of members of the Board;
- 3) Authorize the Executive Committee to approve merit increases and the exact cost-of-living increase for employees based on the increase in the consumer price index for the Denver region;
- 4) Adopt a funding reserve target equal to 2 times the annual core expense of the Western Interstate Energy Board;
- 5) Reauthorize WIEB's Reserve Expenditure Plan with a funding limit of \$100,000 for FY 2018-19;

- 6) Approve the following selection criteria for Reserve Expenditure Plan projects:
 - a. Does the project address an important energy issue in the West?
 - b. Does the issue have multi-state/province implications?
 - c. Is the issue being examined by other organizations?
 - d. Are other organizations better situated to examine the issue?
 - e. Are there opportunities to productively partner with other organizations to examine the issue?
 - f. Will work on the issue provide useful information to energy project developers?
 - g. Is there an opportunity to leverage additional funding to support the work on the issue?
 - h. Will work on the issue "enhance the economy of the West and contribute to the individual and community well-being of the region's people?"
- 7) Authorize the Executive Director and Treasurer to act as financial agents of the Western Interstate Energy Board.

John Chatburn (ID) asked about the new selection criterion for REP projects that asks whether projects will provide useful information to developers (i.e., proposed authorization 6(f)). Jeff Blend (MT) clarified that, in proposing the addition, his goal was to ensure that WIEB REP projects would provide useful and practical information to everyone, not just developers. Laura Nelson (UT), Tony Usibelli (WA), Janea Scott (CA), Jessica Reichers (OR), and Vijay Satyal (WECC) joined in the discussion. The discussion converged on modifying the language of the new criterion to be:

Will work on the issue provide practical information regarding energy projects in the West?

Tony Usibelli (WA) shifted the conversation to a discussion of the WIEB Board's approach and strategy in pursuing outside funding opportunities. Tony indicated the U.S. DOE is looking for partnerships and opportunities for collaboration. Tony encouraged the Board to think strategically about outside funding opportunities. Laura Nelson (UT) supported the suggestion and indicated that energy emergency and resiliency planning could be a great opportunity for WIEB. John Chatburn (ID) indicated that the current federal administration would likely be receptive to proactive proposals from WIEB and that waiting to respond to funding opportunity announcements might not be the best strategy. Tony and John agreed that WIEB should consider focusing on energy topics that go beyond electricity, such as petroleum supply in the West.

Jessica Reichers (OR) indicated that the resiliency issue goes beyond electricity and that the issue involves many state agencies and multiple levels of government.

Laura Nelson (UT) suggested that the Board consider the FY 2018-19 Budget and the Reserve Expenditure Plan selection criteria in separate motions. Tony Usibelli (WA) moved to approve the proposed FY 2018-19 budget with the following six budget authorizations:

- 1) Authorize the acceptance of funds in the areas of radioactive waste, regional electricity cooperation, transmission planning, distributed energy resources, and emerging energy markets;
- 2) Authorize the Executive Committee (Chairman, First Vice Chairman, Second Vice Chairman, and Treasurer) to approve, between meetings of the Board, the acceptance of funds in other areas, upon the written advice of members of the Board;
- 3) Authorize the Executive Committee to approve merit increases and the exact cost-of-living increase for employees based on the increase in the consumer price index for the Denver region;
- 4) Adopt a funding reserve target equal to 2 times the annual core expense of the Western Interstate Energy Board;
- 5) Reauthorize WIEB's Reserve Expenditure Plan with a funding limit of \$100,000 for FY 2018-19; and
- 6) Authorize the Executive Director and Treasurer to act as financial agents of the Western Interstate Energy Board.

John Chatburn (ID) seconded the motion. The Board unanimously approved the motion.

John Chatburn (ID) moved to approve the following selection criteria for Reserve Expenditure Plan projects:

- a. Does the project address an important energy issue in the West?
- b. Does the issue have multi-state/province implications?
- c. Is the issue being examined by other organizations?
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Tony Usibelli (WA) seconded the motion. The Board unanimously approved the motion.

Election of Officers

Laura Nelson (UT), being a candidate for Chair of the WIEB Board, asked John Chatburn (ID) to chair the meeting during the election of officers. John Chatburn (ID) asked for nominations to the Western Interstate Nuclear Board. Maury indicated the following board members were willing to serve as officers in the upcoming year:

- Dr. Laura Nelson (UT) – Chair
- Angela Dykema (NV) – First Vice Chair
- Jeff Blend (MT) – Treasurer

Brian Goretzki (AZ) moved to approve the slate of officers for FY 2018-19. Jessica Reichers (OR) seconded the motion. The Board unanimously approved the motion.

John Chatburn (ID) asked for nominations to the Western Interstate Energy Board. Maury indicated the following board members were willing to serve as officers in the upcoming year:

- Dr. Laura Nelson (UT) – Chair
- Angela Dykema (NV) – First Vice Chair
- Kathleen Staks (CO) – Second Vice Chair
- Jeff Blend (MT) – Treasurer

Janea Scott (CA) moved to approve the slate of officers for FY 2018-19. Brian Goretzki (AZ) seconded the motion. The Board unanimously approved the motion.

Amy Sopinka (BC) asked about the use of the word “chairman” in the WIEB bylaws and the ability to change the grammar to be gender-neutral. Maury indicated that he and Holly Taylor are working on draft amendments to the WIEB bylaws.

Laura Nelson (UT) thanked John Chatburn (ID) for conducting the election and the Board Members for their support.

Solar Energy Technologies Project

Richard McAllister (WIEB) and David Manning (WIEB) provided an overview and update of activities being conducted under the Enhanced Solar PV Deployment Project that is being funded through a cooperative agreement with the U.S. Department of Energy Solar Energy Technologies Office. The goal of the project is to mitigate or potentially remove perceived barriers to the deployment of distributed solar resources in the West. Richard explained that the impetus for the project is the potential doubling of distributed solar capacity in the West by 2026. The project focuses on barriers that fall into three categories: (1) interconnection barriers; (2) utility rate design barriers; and (3) reliability barriers. In the first phase of the project WIEB is partnering with the National Renewable Energy Laboratory (NREL) and Lawrence Berkeley National Laboratory (LBNL) to conduct research on the perceived barriers and potential mitigation strategies. In the second phase of the project WIEB will be travelling to the state capitols in the West to disseminate the key findings and results to policymakers and regulators.

Richard indicated that he and David recently participated in the U.S. DOE Solar Energy Technologies Office annual Portfolio Review. Over 300 projects presented their work. Richard indicated that Washington/Oregon and Montana also received funding to conduct projects under the same funding opportunity. Richard asked these states to provide brief updates on the progress of their projects.

Tony Usibelli (WA) indicated that the Washington Energy Office is working with 19 separate contractors to deploy community solar with a specific emphasis on underserved communities. The project has identified 6 major deployment strategies and is transitioning to implementation and community deployment. Washington is working with NREL on the issue of the valuation of distributed solar and this is one area of potential collaboration with WIEB. Jessica Reichers (OR) indicated the Oregon Energy Office is following a similar approach and with a specific focus on outreach to rural communities in Oregon. The Oregon Public Utility Commission is conducting an investigation into the valuation of solar. In response to the presentations, Janea Scott (CA) commented that the California Legislature recently directed the California Energy Commission to investigate barriers to the deployment of solar in low income communities and suggested there are opportunities to share lessons learned between states. Amy Sopinka (BC) asked whether this information will be made public and indicated that providing service to low income communities is an important issue in British Columbia.

Jeff Blend (MT) indicated that the Montana Energy Office is implementing the Montana Solar Community Project. The project is focused on deploying solar in 25 small rural and 7 reservation communities in Montana. The Montana Energy Office has released: (1) a “Montana Solar Menu of Options Report”; (2) a “Market Assessment Report”, and a “Geospatial Analysis of Solar Potential Report.” These reports are designed to assist Montana communities that are interested in deploying community solar and are available at: www.mtsolarcommunity.com.

Rural and reservation communities can submit applications to the Montana Energy Office for funding of up to \$15,000 per community solar project. The application process will continue through 2019 until the \$100,000 in grant funding is fully dispersed.

David Manning (WIEB) thanked the representatives from Washington, Oregon, and Montana for their project updates. David then discussed the formation of a Strategic Advisory Committee (SAC) to assist WIEB and NREL with the dissemination of key findings and results of its research on solar interconnection barriers to state policymakers and regulator. He shared the names of the advisors from each state.

Angela Dykema (NV) asked about the selection of the state advisors. Maury Galbraith (WIEB) indicated that WIEB staff directly contacted state experts working on solar policy. He emphasized that membership on the SAC is limited to one representative per state. The state SAC members are being asked to help WIEB develop targeted outreach plans to ensure effective dissemination of the results in each state. The outreach plans are likely to be different for each state. Maury indicated that the first SAC meeting will be held on May 1st in Salt Lake City, Utah.

Christine Lazaruk (AB) asked if there was the opportunity and budget for WIEB to conduct similar outreach to the Canadian provinces. Maury responded that the DOE Solar Energy Technologies grant funding can only be used in the states, but that WIEB funding could be used to conduct outreach in the provinces.

David then indicated that WIEB is also seeking SAC member input on whether guidance is needed on state implementation of the new IEEE 1547 standard. Vijay Satyal (WECC) asked about the type of guidance that WIEB might provide on the new standard. David indicated that guidance would be directed to state policymakers and regulators. Maury responded that new IEEE 1547 has built-in implementation options and that WIEB could provide guidance to state utility regulators and energy office policymakers on which implementation options could be expected to work best given current circumstances and objectives. Tony Usibelli (WA) asked whether WIEB would be providing outreach to consumer owned utilities. David indicated that the outreach would be tailored to need on a state-by-state basis.

Next David discussed the key results of the “Interconnection Practices and Costs Report.” WIEB interviewed 14 solar developers and 17 utilities operating in the West to identify the most significant barriers to the interconnection of distributed solar resources. The most frequently identified interconnection barrier by solar developers was, “lack of information about the local grid.” The barrier most frequently identified by utilities was, “Challenges in scheduling appointments.” Angela Dykema (NV) asked about the selection of the developers and utilities and whether WIEB can share the information. David indicated that WIEB has a long list of developers and met with any willing to participate. With respect to the utilities, WIEB approach the three largest utilities, based on electricity sales, in each state. WIEB can disclose the names

of the companies that were interviewed, but specific responses are kept anonymous. David then summarized the system size thresholds for simplified, expedited, and detail interconnection review in each Western state. He also summarized the required interconnection approval timelines in each state. The results show that the interconnection requirements vary greatly across Western states.

David then summarized findings on estimated solar interconnection costs gleaned from an NREL analysis of 92 utility impact studies for systems ranging in size from 100 kilowatts to 20 megawatts. Systems that required the mitigation of “thermal impacts” had the highest average interconnection costs. Angela Dykema (NV) asked for clarification on whether the analysis differentiated between residential- and utility-scale projects. David indicated that the analysis did not account for this difference due to data limitations and that the results are intended to diagnosis the costliest impacts and should not be interpreted as definitive estimates of interconnection costs. Vijay Satyal (WECC) asked whether the costs were those reported in the impact studies or actual costs after installation. David indicated that costs are those reported in the utility impact studies and that the actual interconnection costs likely differ from the reported estimates.

Richard McAllister (WIEB) concluded the presentation with overviews of non-interconnection-related research being conducted with NREL and LBNL in three areas:

- Analysis of DER Ride-Through Performance (NREL);
- Reliability Planning with High Distributed Solar PV Penetration (NREL); and
- Concerns with Utility Rate Design (LBNL)

Richard ended by asking if the WIEB Board had any final questions.

Laura Nelson (UT) returned to the interconnection cost estimates and urged caution in presenting these results. She indicated that although the data limitations and caveats are easily understood she cautioned that not everyone will use the results appropriately.

Vijay Satyal (WECC) asked about the utility rate design analysis and whether the project could meaningfully analyze utility return on equity. Richard McAllister responded that the work was being done on a prototypical western utility.

Laura Nelson (UT) asked whether there would be an opportunity for states to provide input on the “Interconnection Practices and Costs Report.” David indicated that state representatives had provided input through the Technical Advisory Committee. John Chatburn (ID) recommended that in the future the WIEB Board receive draft reports for its review and consideration at the same time as the TAC. Laura Nelson (UT) supported John’s recommendation. Maury indicated his concurrence.

Laura thanked Richard and David for the presentation and excellent work being conducted under the Solar Energy Technologies grant.

Adjourn

Board Chair, Dr. Laura Nelson, thanked the WIEB Board members for their on-going participation and service. She congratulated the newly elected members of the WIEB Executive Committee and expressed her high expectations for the WIEB Board in the upcoming year.

Tony Usibelli (WA) indicated that he will likely retire from state service this year and that this would likely be his last WIEB Board meeting. He extended his thanks to current and previous WIEB Board members and WIEB staff. Laura thanked Tony for his years of service.

Dr. Nelson adjourned the meeting at 11:30 AM.