INTRODUCTION AND BACKGROUND

The Western Interstate Energy Board (WIEB) hosted its 2023 Winter Wildfire Meeting March 1-2, 2023, in Vancouver, British Columbia. WIEB brought together utility regulators, state energy office officials, scientists, national laboratories, and industry experts to discuss the pressing issues the Western Interconnection faces as it grapples with the impacts of wildfires. Attendees spent two days discussing the challenges each province and state are confronted with and sharing strategic solutions on how best to mitigate wildfires and increase safety measures.

The following summary includes key takeaways from the various presentations and panel discussions, as well as links to all the meeting materials.

WEDNESDAY MARCH 1, 2023

THE LEGACY OF WILDFIRE IN THE WEST

Dave Morton, Chair and CEO of British Columbia Utilities Commission welcomed guests to Vancouver and commenced the two-day conference by moderating a technical panel on the history of wildfires in the West. Joining him was Dr. Lori Daniels, a professor at the University of British Columbia’s Department of Forest and Conservation, and Dr. Scott Stephens, Professor of Fire Science at the Department of Environmental Science, Policy, and Management at the University of California at Berkely. The professors explained the fact that open forests are growing denser due to forest management practices, and that historically, fires used to occur more frequently but at less severity and that this dynamic causes challenges both with safety and the ecosystem. The professors also shared their expertise on improved forest management. They discussed the importance of establishing a policy partnership between western science and indigenous tribes, the various methods to mitigate wildfires (mechanical, natural, etc.), and the need for more grassroots engagement with the communities.

USING SATELLITE VEGETATION INTELLIGENCE TO CREATE A DEFENSIBLE WILDFIRE MITIGATION STRATEGY WEST

Ann Rendahl, Commissioner of the Washington Utilities and Transportation Commission moderated a panel discussion on the use of satellite vegetation intelligence and how this technology could be an affordable way to manage vegetation within a utility’s territory. Jordan Ambrogi, Wildfire Mitigation Coordinator at CORE Electric Cooperative explained the utility’s five pillars of effective wildfire mitigation: situational awareness, operations practices, inspection programs, vegetation management, and system hardening. He shared that utilities must be methodical in their approach to wildfire mitigation – they need to identify primary risk drivers, demonstrate understanding of the risk, show
understanding of the system and assets, and create action councils to engage with the community, local government, fire chiefs, and sheriff offices. He stressed cross-discipline coordination and knowledge sharing is critical in wildfire management. Next, Lynn Petesch, Customer Success Manager of Overstory shared her company’s satellite technology and how it differs from its competitors.

ENERGY EMERGENCIES: STATE LEVEL PLANNING FOR WILDFIRES

David Erne, Deputy Director of the Energy Assessment Division of the California Energy Commission, moderated this panel that discussed what type of planning is occurring amongst state-level agencies. With him was Jeff Blend, Ph.D, Energy Emergency Lead of the Montana Energy Office, Eli King, Energy Resilience and Emergency Management Office Director at the Washington Department of Commerce, and John Parks, Policy Analyst at the Colorado Energy Office. The panelists discussed how each of their respective agencies are planning for these threats. David Erne explained how California created a new office – Office of Energy Infrastructure Safety—that is dedicated to reducing utility-related risks in the state. Jeff Blend gave attendees an overview of how the Montana Energy Office conducts analytical modeling to determine the impact of wildfire-related outages and how this data assists with wildfire preparation for utilities in the state. Eli King gave an overview of how the Energy Resilience and Emergency Management Department is fostering a collaborative environment with all stakeholders across the state on how to mitigate wildfire risk by improving resilience and cybersecurity, utility liability insurance reports, utility wildfire mitigation planning, and collecting and sharing protected critical infrastructure information. Lastly, John Parks provided an overview of how the Colorado Energy Office is taking advantage of numerous federal funding opportunities to improve their wildfire management. Colorado received funding from the DOE’s GRIP Topic 2 that established the Smart Grid Grant Colorado Wildfire Mitigation Technology Partnership. The Colorado Energy Office is working with 16 utilities to integrate smart grid function to prevent wildfires.

ASSESSING THE THREAT: TECHNOLOGY AND FORECASTING EXTREME CONDITIONS

Steve Ashbaker, Reliability Initiatives Director at the Western Electricity Coordinating Council moderated this panel where panelists discussed how their organizations have incorporated various tools and methodologies as well as some of the challenges and successes they have experienced when monitoring risks and extreme conditions. Steve provided an overview of how WECC is working to develop a strike team to explore wildfire risk and utility mitigation plans as part of it Reliability Risk Committee and is conducting wildfire data requests with utilities that provides a view of performance and risks throughout the Western Interconnection. Next, Justin Bohlen, Lead Reliability Coordinator at the Reliability Coordination, part of CAISO gave attendees an overview of how the forecasting team at CAISO manages extreme weather conditions. He shared that the team creates alerts from meteorologists to identify extreme weather conditions and that these alerts are used by RCs to prepare and operate the grid. The RCs use multiple tools to monitor fires in real time, communicate with impacted utilities, and prepare the grid for contingencies that may occur. Ben Peco, Senior Manager of Security and Emergency Management at BC Hydro explained how BC Hydro uses a Wildfire Danger Rating mobile App to help line workers from working on infrastructure in high fire danger, which specifies certain controls that...
should be used to mitigate fire risk. Lastly, Sally Wang, Data Scientist at the Pacific Northwest National Laboratory showcased how PNNL is using machine learning to estimate and understand wildfires.

THURSDAY MARCH 2, 2023

REDDING THE RISK: PUBLIC SAFETY POWER SHUTOFFS AND THREAT MITIGATION

Letha Tawney, Commissioner of the Oregon Public Utilities Commission, opened the discussion by summarizing the key points panels on the previous day, emphasizing that the landscape has been actively managed by humans since pre-industrial times. This fact, she explained, encourages us to think about our approach to vegetation management and other wild-fire mitigation mechanisms. She stressed that wildfires are a broader issue that extends beyond the responsibility of utilities, and that thinking about how we can make our community energy resilient in the face of climate change should be part of the core of our work. Mike Bartel, Vice President of Operations of AltaLink, Claire Halbrook, Director at GridWorks, and Bill Messner, Director of Wildfire Mitigation and Resiliency at Portland General Electric, joined Commissioner Tawney in the discussion. The panelists highlighted the importance of narrowing the impacts of PSPS and the various scenarios where PSPS may be necessary. Bill emphasized that wind patterns are the primary driver for the decision to implement PSPS for his utility. The group also reviewed lessons learned from past PSPS events, with a particular emphasis on the importance of clear communication. Claire and Bill discussed the significance of having the appropriate communication channels in place during power outages. In terms of mitigating PSPS impact, the group highlighted the importance of situational awareness and empowering confidence to act. Overall, the group recognized the complexity of PSPS and the need for a comprehensive, community-focused approach.

HOLISTIC IMPACTS OF WILDFIRES AND LONG-TERM RECOVERY

Michael Furze, Assistant Director of the Energy Division of the Washington State Department of Commerce moderated this panel. Joining him was Lindsey Quam, Deputy State Forester and Tribal Liaison of the Forest Division of the New Mexico Energy, Minerals and Natural Resources Department and Kit O’Connor, Research Ecologist at the Rocky Mountain Research Station of the USDA Forest Service. Lindsey opened his presentation by showcasing the recent Calf Canyon/Hermits Peak Fire. He showed the changing landscape of wildfires in New Mexico and emphasized the need to integrate extreme events into forest and watershed management. While traditional methods such as thinning, piling, and prescribed burning have been effective, New Mexico has taken additional actions to address the changing environment. One action is the 2020 Forest Action Plan, which is a science-based strategic plan for landscape management considering how to use resources more effectively across states in a 10-year time period in collaboration with partners. The results include the establishment of the New Mexico Priority Landscapes Map illustrating the landscape, threats, biodiversity, wildfire, and forest resources. Another example is the Prescribed Burning Act passed in 2021 focused on expanding prescribed fire on private lands. Under this act, certified burner programs were created, which strengthened the training of staff and private sectors. Lindsey highlighted the need for a complete reformation of wildfire management processes in the changing environment and emphasized the
importance of science-based approaches. Kit’s presentation explained proactive management for social and ecological adaptation. He emphasized the criticality of managing wildfires at a landscape scale. His group is mainly focusing on adopting physics-based science to actual decision making in wildfire management. Wildfire risk management is a cyclical process that involves planning, execution, analytical monitoring, and feedback loop for future planning. He noted a dramatic increase in structure loss due to fires caused by both human and lighting factors in the past decade, which necessitates cross-boundary risk management. His team is using a tool known as Potential Operational Delineations (PODs), a quantitative risk assessment system that identifies the best available locations to treat by assessing the intensity, likelihood, and susceptibility of fire and creating a heat map. This system can visualize wildfire risk and suppression opportunities, facilitate cross-boundary solutions, and identify potential control lines with the highest likelihood of success.

UTILITY REGULATION: PRUDENT INVESTMENTS, BEST PRACTICES, AND COST COMPARISONS

Phillip Moeller, Executive Vice President of Business Operations and Regulatory Affairs at Edison Electric Institute moderated this panel and was joined by Dave Danner, Chair of the Washington Utilities and Transportation Commission, and TM Sandulak, Manager of Emergency Management and Business Continuity Program at Fortis BC. Chair Danner explained how the Washington UTC has implemented consistent, all day workshops with the utilities to get a sense of how the utilities are taking prudent steps to deal with wildfire risks in their territory. Additionally, he explained how Washington has created a wildfire council where various government agencies collaborate and manage certain wildfire issues in the state. He emphasized that insurance costs for wildfires in the western US were up $13B more than in previous years and that these costs will be reflected in rates and passed through to ratepayers. He stressed that commissions must figure out how to balance wildfires costs and the implementation of new technology for managing the fires. Commissions are risk adverse so how do they ensure that utilities are adapting to the new changes in technologies, etc. effectively and efficiently to manage wildfires, while still protecting ratepayers and any increases in rate? Commissioners will have to continue to rely on utilities to present the most cost-effective, successful wildfire management plan. TM emphasized that wildfires will be worse without mitigation and real-time intelligence – tactical vegetation plans, communication protocols with local fire departments, etc.. A major concern for his company is whether it’s procuring the necessary equipment and inventory to mitigate wildfires. He stressed that training and education is critical, but explained wildfire management funding is the most challenging aspect for FortisBC.

REGIONALIZATION OF THE LESSONS WE’VE LEARNED

Amy Sopinka, Acting Executive Director of the Electricity Policy Branch of the British Columbia Ministry of Energy, Mines and Low Carbon Innovation, moderated the final panel of the conference. She was joined by Caroline Thomas Jacobs, Director at the California Office of Energy Infrastructure Safety and Connor Wollis, Wildfire and Land Management Specialist at Alberta Wildfire. Caroline provided an overview of how the Office of Energy Infrastructure Safety was created by the legislature to oversee and enforce electrical corporation compliance with wildfire safety rules and regulations. This is a new and innovative regulatory framework enacted to reduce utility-ignited wildfires through investments in
electrical grid resiliency and mandated utility safety reforms. She also discussed the enactment of SB884, which incentivizes investment in safety through voluntary safety certification participation. Her office partners with the CPUC to administer the voluntary 10-year undergrounding plan for utilities. Connor explained that for Alberta, human life, communities, watersheds and soils, natural resources, and infrastructure are the province’s main priorities when it comes to wildfire mitigation. Landscape fire exposure is intensifying in the province with 70 wildfires ignited by power line industry. He emphasized that mitigation plans are critical, but they must be updated and followed. He also discussed how funding is a challenge. Alberta’s wildfire management is currently funded through grants, but this is not very sustainable. He asked the room how provinces and states can enable and fund for the long-term.