

Western Interconnection Regional Advisory Body

2017 Business Plan and Budget

July 5, 2016

**Approved by:
Appointed Members of the
Western Interconnection Regional Advisory Body**

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Introduction

The Western Interconnection Regional Advisory Body (WIRAB) proposed budget for 2017 is \$1,229,080. This amount is \$141,194 (10%) lower than the amount in WIRAB's approved budget for 2016. Total proposed FTEs for 2017 remain constant at 5.5. The total funding requirement is \$902,102. WIRAB's proposed funding assessment is \$901,452, a reduction of \$338,546 (27%) from last year's funding assessment. WIRAB's proposed funding assessment is allocated \$759,556 (84%) to the U.S. portion, \$128,716 (14%) to the Canadian portion, and \$13,180 (2%) to the Mexican portion of the Western Interconnection. The following table summarizes the WIRAB proposed budget for 2017.

WIRAB - Total Resources (in whole dollars)	2017 Budget	U.S.	Canada	Mexico
Statutory FTEs	5.50			
Non-statutory FTEs				
Total FTEs	5.50			
Statutory Expenses	\$ 1,229,080			
Non-Statutory Expenses				
Total Expenses	\$ 1,229,080			
Statutory Inc(Dec) in Fixed Assets				
Non-Statutory Inc(Dec) in Fixed Assets				
Total Inc(Dec) in Fixed Assets	\$ -			
Statutory Working Capital Requirement	\$ (326,978)			
Non-Statutory Working Capital Requirement	0			
Total Working Capital Requirement	\$ (326,978)			
Total Statutory Funding Requirement	\$ 902,102			
Total Non-Statutory Funding Requirement	\$ -			
Total Funding Requirement	\$ 902,102			
Statutory Funding Assessments	\$ 901,452	\$ 759,556	\$ 128,716	\$ 13,180
Non-Statutory Fees				
NEL	869,883,481	732,956,732	124,208,633	12,718,116
NEL%	100.00%	84.26%	14.28%	1.46%

Table 1. WIRAB Budget for 2017

Organizational Overview

In April 2006, ten Western Governors petitioned the Federal Energy Regulatory Commission (FERC or Commission) to create the Western Interconnection Regional Advisory Body (WIRAB) under Section 215(j) of the Federal Power Act. The Governors indicated their interest in inviting all U.S. states, Canadian provinces, and Mexican jurisdictions which have territory in the Western Interconnection to join WIRAB.

In July 2006, FERC issued an order granting the petition to establish WIRAB.¹ In its order the Commission determined that WIRAB should receive funding for its Section 215(j) activities and directed WIRAB to annually develop a budget and related information for submission through the Electric Reliability Organization (ERO) budget approval process. The Commission instructed WIRAB to develop a budget in a form similar to that specified for regional entities as set forth in Order 672.² The Commission also required WIRAB to identify the portion of its funding to be received from Canada and Mexico.

The Governors created WIRAB as a standing advisory committee to the Western Interstate Nuclear Board (WINB), which was formed pursuant to the Western Interstate Nuclear Compact, P.L. 91-461. WIRAB has the same status under the compact as the Western Interstate Energy Board (WIEB). WIRAB operates under the bylaws of WINB as revised on April 4, 2006. Below is a chart that illustrates these organizational relationships.

¹ Order on Petition to Establish a Regional Advisory Body for the Western Interconnection, 116 FERC ¶ 61,061, Docket No. RR06-2-000, July 20, 2006.

² Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Reliability Standards, Order 672, Docket RM05-30-000, Feb. 3, 2006, P. 228. "Each Regional Entity must submit its complete business plan, entire budget and organizational chart to the ERO for it to submit to the Commission. The complete business plan and the entire budget will provide the Commission with necessary information about any non-statutory activities, the source of their funding, and whether the pursuit of such activities presents a conflict of interest for the Regional Entity. For a Cross-Border Regional Entity, this information will also inform the Commission as to what portion of the budget is expended upon activities within the United States."

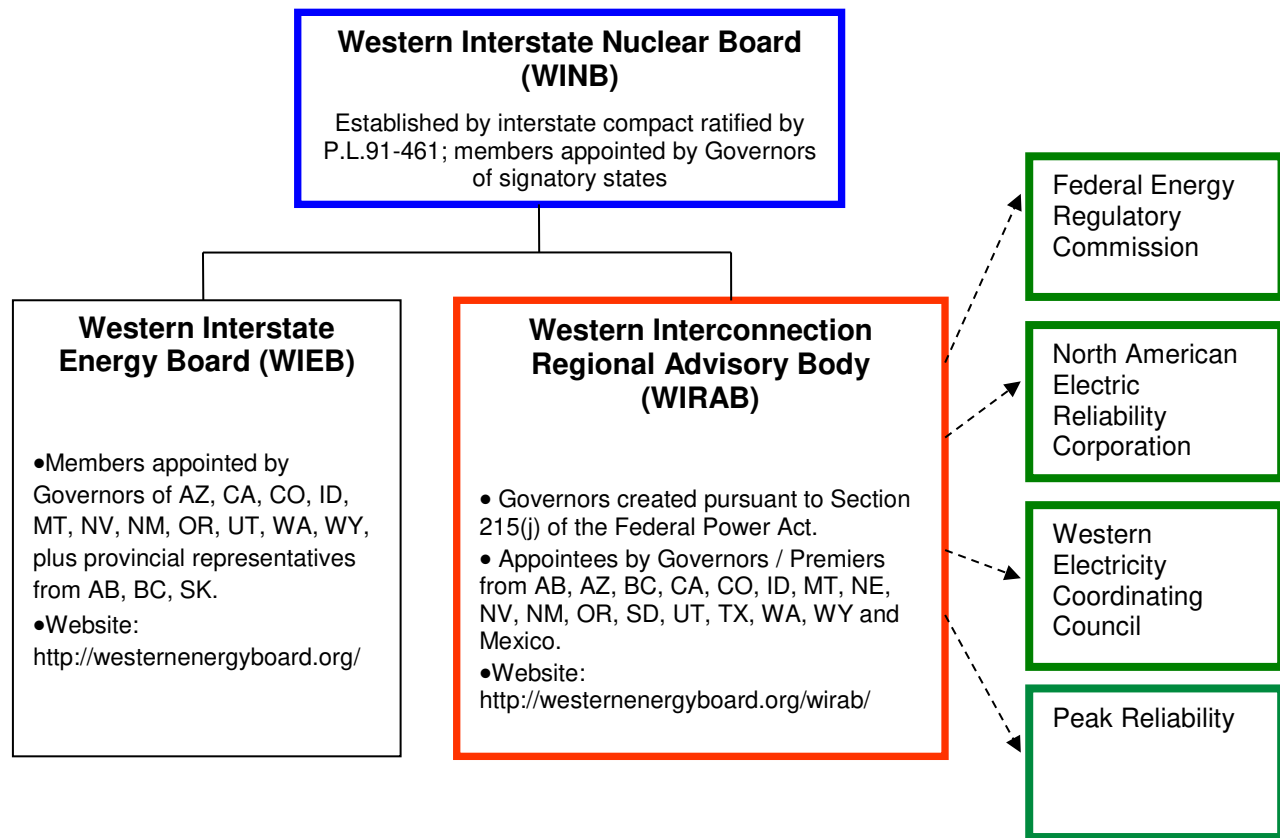


Figure 1. Organizational Relationships.

Membership and Governance

All of the states with territory in the Western Interconnection (AZ, CA, CO, ID, MT, NE, NV, NM, OR, SD, TX, UT, WA, WY), the Canadian provinces of Alberta and British Columbia, and Mexico are members of WIRAB. Members of WIRAB are appointees of the Governors and Premiers or their alternates. Below is the list of current members:

WIRAB - Membership List		
Alberta	Christine Lazaruk	Executive Director, Strategy and Integration, Alberta Energy
Arizona	Vacant	
British Columbia	Les MacLaren	Assistant Deputy Minister, Electricity & Alternative Energy Division, Ministry of Energy & Mines
California	Janea Scott	Commissioner, California Energy Commission
Colorado	Chris Worley	Director of Policy & Research, Colorado Energy Office
Idaho	John Chatburn	Director, Idaho Governor's Office of Energy Resources
Mexico	Marcos Valenzuela	Comision Federal de Electricidad
Montana	Jeff Blend	Economist, Montana Department of Environmental Quality
Nebraska	Tim Texel	Executive Director, Nebraska Power Review Board
Nevada	Paul Thomsen	Chair, Nevada Public Utilities Commission
New Mexico	Vacant	
Oregon	John Savage	Commissioner, Oregon Public Utility Commission
South Dakota	Greg Rislov	Commission Advisor, South Dakota Public Utility Commission
Texas	Vacant	
Utah	David Clark	Commissioner, Utah Public Service Commission
Washington	Tony Usibelli	Assistant Director, State Energy Office, Washington Department of Commerce
Wyoming	Bill Russell	Commissioner, Wyoming Public Service Commission

Figure 2. WIRAB Membership List.

WIRAB holds two in-person meetings each year, typically in April and October. The meetings are open to the public. WIRAB holds quarterly conference calls to discuss emerging issues and hosts periodic webinars with presentations from subject matter experts on key reliability topics.

Statutory Functional Scope

FERC established WIRAB as a Regional Advisory Body under section 215(j) of the Federal Power Act. The language in Section 215(j) specifically provides for WIRAB's authority to advise NERC, FERC and WECC on whether reliability standards, budgets and fees, governance, compliance, assessments, strategic direction and other activities conducted pursuant to Section 215 are just, reasonable, not unduly discriminatory or preferential, and in the public interest.

FERC has additionally authorized WIRAB to advise Peak Reliability on these topics: “[D]eference to WIRAB is appropriate here because Peak Reliability funding implicates the following topics listed in FPA section 215(j) on which a Regional Advisory Body may give advice: ‘governance of an existing or proposed regional entity ... [and] whether fees proposed to be assessed within the region are just, reasonable, not unduly discriminatory or preferential, and in the public interest.’” FERC Order on Rehearing, Docket No. EL13-52 et al., P. 46 (Dec. 6, 2013).

WIRAB's advice to FERC, NERC, WECC, and Peak Reliability can be grouped into four categories that are appropriately funded under Section 215 of the FPA:

1. Governance and Strategic Planning
2. Emerging Trends and System Risks
3. Periodic Reliability Assessments
4. Reliability Standards and Proactive Enforcement

WIRAB's activities in each of these categories are described in Section A – Statutory Activities.

2017 Strategic Priorities and Goals

The resource mix of the Western power system is rapidly changing. Utility-scale wind and solar generation is being built in many parts of the West. California and the Desert Southwest are experiencing rapid growth in the installation of rooftop solar photovoltaic generation. Environmental regulations, including those to reduce regional haze and to reduce mercury emissions, and efforts to transition to a lower carbon economy have resulted in announced retirements of coal-fired generating units. These changes to the generation resource mix will present new reliability challenges and opportunities as more non-synchronous generation is added to the system and synchronous spinning mass generation is retired.

The structure of Western power markets is also undergoing significant change. The California ISO Energy Imbalance Market (EIM) will gain new participants in 2016, 2017 and 2018. Utility executives, state policymakers, and stakeholders are engaged in discussions regarding the potential transformation of the California ISO into a regional multi-state ISO. These market reforms could result in changes in system operations (e.g., transmission scheduling, congestion management) and create new reliability challenges and opportunities.

The modernization of the electric grid has also resulted in an increasing focus on physical and cyber security. These threats will continue to impact the availability of data and the transparency of periodic reliability assessments. At the same time there is also a greater need for research and development of new technologies and operational tools that can be used to improve system reliability.

In response to these on-going changes in the Western Interconnection, WIRAB has identified four strategic initiatives that it will pursue in 2017:

Initiative 1: Encourage WECC and Peak Reliability to set strategic planning priorities and align budgets and work plans based on rigorous analyses of existing and emerging risks to reliability in the Western Interconnection.

The WECC Board of Directors recently established a new three year strategic planning process to set WECC's strategic priorities. This process will enable the WECC Board of Directors to pursue a comprehensive review of existing and emerging risks to

reliability and to identify strategic initiatives to address the most significant challenges. The new Three Year Strategic Plan should provide a strong basis for addressing the question of what level of resources is needed for WECC to fulfill its reliability mandate. WIRAB has recommended that the Peak Reliability Board of Directors conduct a similar review of risks to reliability in the real-time operating time horizon to set its strategic priorities.

Recent strategic planning and budget discussions at WECC have been predominately focused on cost containment and assessment stabilization. Recent strategic planning discussions at Peak Reliability have been focused on establishing value beyond Peak's role as the Reliability Coordinator. WIRAB believes the strategic planning processes at both WECC and Peak Reliability can be improved with a renewed focus on emerging reliability risks and challenges.

The goals of this initiative are for:

- The Board of Directors of Peak Reliability to set strategic priorities for Peak Reliability based on an open, transparent, and rigorous assessment of the risks to the real-time operation of the bulk-power system in the Western Interconnection prior to the development of the 2018 Business Plan and Budget.
- The Board of Directors of WECC to set strategic priorities for WECC based on an open, transparent, and rigorous assessment of the existing and emerging risks to reliability in the Western Interconnection prior to the development of the 2018 Business Plan and Budget.

The actions that WIRAB staff will take to achieve these goals include:

- Providing advice to Peak Reliability on strategic priorities and risks to the real-time operation of the bulk-power system in the Western Interconnection.
- Providing advice to WECC on strategic priorities and the existing and emerging risks to reliability in the Western Interconnection.
- Providing advice to Peak Reliability and WECC on strategic plans, budgets, and work plans to align those plans with risk analyses.

Initiative 2: Encourage Peak Reliability and WECC to develop policies to protect Critical Electricity Infrastructure Information (CEII) and to promote sharing of non-CEII data with third parties to foster research and development.

The Fixing America's Surface Transportation Act ("FAST Act") was signed into law in December 2015. The FAST Act includes provisions relating to energy security and critical energy infrastructure. The law amends the Federal Power Act ("FPA") and creates a new FPA Section, Section 215A, addressing critical electric infrastructure security. The Federal Energy Regulatory Commission ("FERC") is directed to "establish criteria and procedures to designate information as Critical Electric Infrastructure Information ("CEII"); prohibit the unauthorized disclosure of [CEII];...(and) facilitate voluntary sharing of [CEII]..." FERC has one year to enact such regulations.

The Board of Directors of Peak Reliability approved a new Universal Data Sharing Agreement (UDSA) in December 2015. The new UDSA was the product of a contentious 11 month stakeholder input process. After passage of the FAST Act, Peak Reliability questioned whether it should modify the new UDSA, which includes procedures for sharing data with third parties. In March 2016, the Board of Directors amended the UDSA to delete the third party data sharing provisions included in the UDSA Exhibit A. This effectively ends all data sharing between Peak Reliability and third party researchers interested in developing tools and methodologies to improve the reliability of the Western Interconnection. The Board of Directors did, however, adopt a provision to revisit third party data sharing once FERC rules on CEII are promulgated. Proper sharing of data with third party researchers and developers can lead to reliability discoveries unforeseen by Peak or its members.

The goals of this initiative are for:

- Peak Reliability and WECC to update their data sharing policies to reflect FERC decisions regarding the definition of Critical Electricity Infrastructure Information (CEII) under Section 215A of the FPA.
- Peak Reliability and WECC to strengthen protection of CEII data while at the same time ensuring that non-CEII data is available to third parties to conduct needed research and development to improve the reliability of the Western Interconnection.

The actions that WIRAB staff will take to achieve these goals include:

- Providing advice to FERC in a rulemaking to clearly define Critical Electricity Infrastructure Information (CEII) under Section 215A of the FPA.
- Working with Peak Reliability and WECC to develop procedurally fair data sharing policies that appropriately balance the protection of CEII data and the sharing of non-CEII data.

Initiative 3: Encourage WECC to systematically assess the availability of Essential Reliability Services under a wide-range of future resource scenarios.

WECC does not currently have the integrated data sets and analytical tools needed to conduct systematic assessments of the availability of Essential Reliability Services under future resource scenarios. WIRAB staff is currently participating on the WECC Transmission Expansion Planning and Policy Task Force that is leading an effort to create a single “Anchor Data Set” to enable WECC to conduct integrated production cost modeling and power flow modeling to systematically assess the availability of Essential Reliability Services.

A systematic assessment of Essential Reliability Services includes identification of potential concerns such as insufficient ramping capability, insufficient frequency response, or insufficient voltage stability as we add more non-synchronous, variable generation to the grid. It also includes evaluation of mitigation measures when reliability concerns are identified, including measures that would need to be taken by Registered Entities such as the installation of synchronous condensers to improve system response to frequency disturbances.³

The goals of this initiative are for:

- WECC to complete an integrated assessment of system frequency response in a future with high utility-scale development of non-synchronous wind and solar

³ In 2015, the State-Provincial Steering Committee funded work by GE Energy Consulting to develop a roadmap for assessing the reliability challenges associated with high levels of variable energy resources and the retirement of coal plants in the Western Interconnection. The report discusses the types of analysis and data needed to identify and quantify potential reliability problems, as well as the identification and analysis of mitigation options that can provide promising solutions.

generation and significant retirements of coal-fired generation in the Western Interconnection.

- WECC to complete an integrated assessment of system frequency response in a future with high penetration of distributed energy resources, including rooftop solar photovoltaics. WECC should evaluate the impact of the simultaneous large-scale tripping of solar photovoltaics without smart inverters.
- WECC to complete and publicly disseminate written reports describing the methodology and results of the frequency response assessments.
- WECC to present the findings and results of the frequency response assessments at WECC Member Advisory Committee meetings.

The actions that WIRAB staff will take to achieve these goals include:

- Participating on the WECC Transmission Expansion Planning and Policy Task Force to accelerate development of the integrated data sets and analytical tools needed to conduct systematic assessments of the availability of Essential Reliability Services.
- Working with WECC to develop and disseminate the finding and results of the frequency response assessment to regulators and policymakers in the Western Interconnection.
- Providing advice to WECC on the design of the reliability assessments and on the interpretation of the results of the analyses.

Initiative 4: Encourage and work with Peak Reliability to identify, disseminate, and promote best operational practices.

The September 8, 2011 Southwest outage highlighted significant deficiencies in the operation of the Western grid. Gaps still exist in Registered Entity operating practices in the Western Interconnection in the following areas: (1) coordination of next-day studies; (2) effectiveness of operational studies; (3) accuracy of the load, interchange and generation forecasts used in next-day studies; (4) failure to use real-time tools for Real-Time Contingency Analysis; (5) failure to share relay overload trip settings and (6) accuracy and coordination of seasonal studies. In order to address

these on-going concerns, WIRAB will continue to work with Peak Reliability to encourage the adoption of best operating practices by Registered Entities in the Western Interconnection.

The goals of this initiative are for:

- Peak Reliability to complete assessments and identify best operating practices in two of the areas of concern;
- Peak Reliability to present the assessment results and best practices at a Peak Reliability User Group meeting;
- Peak Reliability to disseminate written guidance to Registered Entities on the steps to take in implementing the best practices.

The actions that WIRAB staff will take to achieve these goals include:

- Working with Peak Reliability to identify the areas of concern where the identification of best practices can be expected to improve reliability performance.
- Working with Peak Reliability to encourage active participation of Registered Entities in the identification of best practices.
- Working with Peak Reliability to disseminate the best practices and guidance to Registered Entities, regulators, and policymakers in the Western Interconnection.

In addition to WIRAB's four strategic initiatives for 2017, with their associated goals and actions, WIRAB will strive to achieve the following goals as opportunities arise at WECC and Peak Reliability:

- WECC and/or Peak Reliability to investigate the reliability impacts of Western Interconnection market reforms such as energy imbalance markets, changes to reserve sharing practices, and congestion management tools.
- WECC and/or Peak Reliability to investigate the reliability impacts of the increased use of natural gas generation and the need for natural gas and electric industry coordination.
- WECC and/or Peak Reliability to investigate the feasibility of a new dynamic path transfer capability methodology to replace the current static path transfer

methodology to more accurately reflect grid conditions and to improve system reliability.

- WECC and/or Peak Reliability to investigate the impacts of high penetrations of distributed generation resources and the need for better two-way communication between distribution system operators with large amounts of distributed energy resources and bulk power system operators.
- WECC and/or Peak Reliability to investigate the reliability impacts of the implementation of the EPA's Clean Power Plan and related EPA regulation of electric generating units.

The actions that WIRAB takes to achieve these on-going goals are described in Section A – Statutory Activities. WIRAB's public meetings in the spring and fall will continue to be a forum for policymakers and regulators to discuss important reliability issues and exchange views on existing and emerging reliability risks.

2017 Budget and Assessment Impacts

The WIRAB proposed budget for 2017 is \$1,229,080. This amount is \$141,194 (10%) lower than the amount in WIRAB's approved budget for 2016. Total proposed FTEs for 2017 remain constant at 5.5. The total funding requirement is \$902,102. WIRAB's proposed funding assessment is \$901,452, a reduction of \$338,546 (27%) from last year's funding assessment.

Personnel and Indirect Expenses

Personnel expenses drop from \$539,500 in the 2016 Budget to \$465,653 in the 2017 Budget due to turn-over in personnel and a correction in salary cost (all holiday, vacation and sick leave cost estimates were moved to overhead). WIRAB uses a single rate method for indirect expenses. The indirect expenses include office expenses, medical and retirement expenses as well as holiday, vacation and sick leave for WIRAB staff. The indirect rate is a percent of direct staff time spent on WIRAB. It is estimated that the indirect rate will remain constant at 96% of direct labor costs. Table 2 shows personnel and indirect expenses per FTE for the approved 2016 Budget and the proposed 2017 Budget.

WIRAB - Personnel and Indirect Expense Analysis 2016-2017						
STATUTORY						
	Budget 2016	Projection 2016	Budget 2017	Variance 2017 Budget v 2016 Budget	Variance %	
Salary Expense	\$ 539,500	\$ 490,000	\$ 465,653	\$ (73,847)	-13.7%	
FTEs	5.50	5.20	5.50	-	0.0%	
Cost per FTE	\$ 98,091	\$ 94,231	\$ 84,664	\$ (13,427)	-13.7%	
Indirect Rate	96%	96%	96%			
Indirect Expense	\$ 517,920	\$ 470,400	\$ 447,027	\$ (70,893)	-13.7%	
FTEs	5.50	5.20	5.50	-	0.0%	
Cost per FTE	\$ 94,167	\$ 90,462	\$ 81,278	\$ (12,890)	-13.7%	

Table 2. Personnel and Indirect Expense Analysis, 2016-2017.

Meetings, Travel and Conference Calls

Meeting costs increase by \$2,900 to \$60,900. WIRAB will hold two major in-person meetings per year that include participation by state/provincial agencies with electric power responsibilities in the Western Interconnection. Wherever feasible, WIRAB meetings will be coordinated with other meetings of Western states and provinces.

Travel costs increases by \$2,900 to \$99,500. This amount covers WIRAB staff travel and state/provincial travel to attend meetings of WIRAB and both WECC and Peak Reliability. The increase in hotel and travel costs is based on cost increases we have experienced in the last year.

Conference call and webinar costs drop slightly from \$8,254 to \$6,000. We have found webinars to be very valuable in providing information to members between the two annual meetings.

Consultants and Contracts

The budget includes \$150,000 (the same as in 2016) for contracting for technical expertise on issues related to improved grid operating practices, standards and

compliance. This expertise will help WIRAB prepare technically-sound advice under Section 215(j).

Budget Comparison

Table 3 shows the 2016 Budget and 2016 Projection compared to the 2017 Budget.

WIRAB - Statement of Activities and Change in Working Capital 2016 Budget & Projection, and 2017 Budget							
STATUTORY							
	2016 Budget	2016 Projection	Variance 2016 Projection v 2016 Budget		2017 Budget	Variance 2017 Budget v 2016 Budget	
			Over(Under)	% Change		Over(Under)	% Change
Funding							
WIRAB Funding							
Assessments	\$ 1,239,998	\$ 1,239,998	\$ -	0.0%	\$ 901,452	\$ (338,546)	-27.3%
Penalty Sanctions	-	-	-	-	-	-	-
Total WIRAB Funding	\$ 1,239,998	\$ 1,239,998	\$ -	0.0%	\$ 901,452	\$ (338,546)	-27.3%
Membership Dues	-	-	-	-	-	-	-
Testing Fees	-	-	-	-	-	-	-
Services & Software	-	-	-	-	-	-	-
Workshops	-	-	-	-	-	-	-
Interest	550	600	\$ 50	9.1%	650	\$ 100	18.2%
Miscellaneous	-	-	-	-	-	-	-
Total Funding (A)	\$ 1,240,548	\$ 1,240,598	\$ 50	0.0%	\$ 902,102	\$ (338,446)	-27.3%
Expenses							
Personnel Expenses							
Salaries	539,500	490,000	(49,500)	-9.2%	465,653	\$ (73,847)	-13.7%
Payroll Taxes	-	-	-	-	-	-	-
Benefits	-	-	-	-	-	-	-
Retirement Costs	-	-	-	-	-	-	-
Total Personnel Expenses	\$ 539,500	\$ 490,000	\$ (49,500)	-9.2%	\$ 465,653	\$ (73,847)	-13.7%
Meeting Expenses							
WIRAB Meetings	\$ 58,000	\$ 58,000	\$ -	0.0%	\$ 60,900	\$ 2,900	5.0%
Travel	96,600	96,600	\$ -	0.0%	99,500	\$ 2,900	3.0%
Conference Calls	8,254	5,000	\$ (3,254)	-39.4%	6,000	\$ (2,254)	-27.3%
Total Meeting Expenses	\$ 162,854	\$ 159,600	\$ (3,254)	-2.0%	\$ 166,400	\$ 3,546	2.2%
Operating Expenses							
Consultants & Contracts	\$ 150,000	\$ 150,000	\$ -	0.0%	\$ 150,000	\$ -	0.0%
Office Rent	-	-	-	-	-	-	-
Office Costs	-	-	-	-	-	-	-
Professional Services	-	-	-	-	-	-	-
Miscellaneous	-	-	-	-	-	-	-
Depreciation	-	-	-	-	-	-	-
Total Operating Expenses	\$ 150,000	\$ 150,000	\$ -	0.0%	\$ 150,000	\$ -	0.0%
Total Direct Expenses	\$ 852,354	\$ 799,600	\$ (52,754)	-6.2%	\$ 782,053	\$ (70,301)	-8.2%
Indirect Expenses	\$ 517,920	\$ 470,400	\$ (47,520)	-9.2%	\$ 447,027	\$ (70,893)	-13.7%
Other Non-Operating Expenses	\$ -	\$ -	\$ -	-	\$ -	\$ -	-
TOTAL BUDGET (B)	\$ 1,370,274	\$ 1,270,000	\$ (100,274)	-7.3%	\$ 1,229,080	\$ (141,194)	-10.3%
CHANGE IN WORKING CAPITAL (=A-B)¹	\$ (129,726)	\$ (29,402)	\$ 100,324	-	\$ (326,978)	\$ (197,252)	-
FTEs	5.50	5.50	-	0.0%	5.50	-	0.0%

¹ Fixed Asset included in Indirect Expenses.

Table 3. Budget Comparison, 2016 to 2017.

Statutory Assessments

WIRAB's proposed funding assessment of \$901,452 is allocated \$759,556 (84%) to the U.S. portion, \$128,716 to the Canadian portion (14%), and \$13,180 (2%) to the Mexican portion of the Western Interconnection.

Key Assumptions

The WIRAB 2017 Budget and Business Plan is based on the following assumptions:

- There will be no significant expansion of FERC, NERC, WECC, or Peak Reliability responsibilities as a result of legislation or administrative actions.
- WIRAB will continue to provide advice to Peak Reliability.
- WIRAB will hold two in-person meetings in 2017.
- WIRAB will organize and sponsor webinars and workshops on key reliability issues for WIRAB members, state and provincial representatives, industry, and others.
- WIRAB will attend all WECC and Peak Reliability Boards of Directors and Member Advisory Committee (MAC) meetings.
- WIRAB will attend selected NERC meetings and workshops on relevant topics.
- WIRAB will annually visit with FERC in its offices.
- WIRAB will monitor all FERC business meetings.
- WIRAB will attend FERC technical conferences on reliability issues.

Section A – Statutory Activities

2017 Business Plan and Budget

Section A – Statutory Activities

WIRAB's advice to FERC, NERC, WECC, and Peak Reliability can be grouped into four categories that are appropriately funded under Section 215 of the FPA:

1. **Governance and Strategic Planning:** Section 215(j) of the FPA authorizes WIRAB to provide advice to FERC on the governance, strategic direction, budget and fees of WECC. FERC has previously authorized WIRAB to provide advice on the governance, strategic direction, budget and fees of Peak Reliability.
2. **Emerging Trends and System Risks:** WIRAB must maintain awareness of system conditions and emerging trends and system risks in order to provide effective and technically sound advice regarding the strategic direction of FERC and Peak Reliability. WIRAB also uses knowledge of emerging trends and risks to provide advice to WECC on reliability readiness activities and proactive compliance efforts. These activities are appropriately funded under Section 215(j) of the FPA.
3. **Periodic Reliability Assessments:** Section 215(g) of the FPA requires NERC to conduct periodic assessments of the reliability and adequacy of the bulk-power system. WECC assists NERC in performing this statutory activity. WIRAB works closely with WECC to improve reliability assessment in the Western Interconnection.
4. **Reliability Standards and Proactive Enforcement:** Section 215(j) of the FPA authorizes WIRAB to provide advice to FERC on whether reliability standards are just, reasonable, not unduly discriminatory or preferential, and in the public interest. WIRAB works closely with WECC and Peak Reliability to identify emerging problems or conditions that should be considered in the course of drafting and voting on amendments to existing standards or new standards. WIRAB also works closely with WECC to develop reliability readiness activities and to promote proactive compliance efforts.

WIRAB's activities in each of these categories are described in the following subsections.

Governance and Strategic Planning

WIRAB staff engage in the following on-going activities in order to provide independent expert advice on the governance and strategic direction of WECC and Peak Reliability:

- Attend all WECC Board of Director and Member Advisory Committee meetings and monitor developments related to governance and strategic planning.
- Attend all WECC Joint Guidance Committee meetings and monitor developments related to governance and strategic planning.
- Conduct quarterly webinars with WIRAB Members and WECC Class 5 Members to review and develop advice and guidance on WECC governance and strategic planning matters.
- Provide written advice to WECC management and Board of Directors on:
 - WECC's Three Year Strategic Plan;
 - WECC's annual Budget and Business Plan;
 - WECC's annual Operational Practices Survey.
- Participate on the WECC Operating Committee Task Force to provide guidance and input on the governance and structure of the WECC Operation Committee.
- Participate on the WECC Transmission Expansion Planning Policy Committee Task Force to provide guidance and input on the governance and structure of the WECC Transmission Expansion Planning Policy Committee.
- Attend all Peak Reliability Board of Director and Member Advisory Committee meetings and monitor developments related to governance and strategic planning.
- Conduct quarterly webinars with WIRAB Members and Peak Reliability Class 5 Members to review and develop advice and guidance on WECC governance and strategic planning matters.
- Provide written advice to Peak Reliability management and Board of Directors on:

- Peak Reliability's annual Strategic Plan;
- Peak Reliability's annual Budget and Business Plan;
- Peak Reliability's annual Board Evaluation Questionnaire;
- Peak Reliability's annual Reliability Performance Scorecards (metrics for BAs and TOPs);
- Peak Reliability's annual Reliability Metrics Dashboard (metrics for Peak Reliability)

Emerging Trends and System Risks

WIRAB staff engage in the following on-going activities in order to provide independent expert advice on the emerging reliability trends and system risks:

- Attend all WECC Operating Committee meetings.
- Attend all WECC Transmission Expansion Planning Policy Committee meetings.
- Attend all Peak Reliability Reliability User Group meetings.
- Monitor WECC Planning Coordination Committee meetings.
- Monitor WECC Market Interface Committee meetings.
- Conduct monthly meetings with contractors to identify and discuss emerging reliability issues.
- Provide written advice to WECC management and Board of Directors on:
 - WECC's Three Year Strategic Plan;
 - WECC's annual State of the Interconnection report.
- Monitor WECC Event Analysis and Situation Awareness

Periodic Reliability Assessments

WIRAB staff engage in the following on-going activities in order to provide guidance and independent expert advice on WECC's periodic reliability assessments:

- Attend all WECC TEPPC meetings.

- Submit TEPPC Study Requests
- Provide advice to WECC and Peak Reliability on how to identify, analyze, and recommend actions to address current and emerging reliability challenges.
- Provide advice to WECC and Peak Reliability on how to secure policy input from states and provinces and subject matter experts.
- Provide advice to WECC and Peak Reliability on how to advance best practices to maintain physical and cyber security of the grid.
- Provide advice to WECC and Peak Reliability on how to foster deployment of advanced grid monitoring and control technologies.

Reliability Standards and Proactive Enforcement

WIRAB staff engage in the following on-going activities in order to provide independent expert advice on the development and proactive enforcement of reliability standards:

- Attend all WECC Operating Committee meetings.
- Advice to WECC on Implementation of BAL-001-2
- Advice to WECC on turbine-generator governor dead band issues
- Monitor physical and cyber security standards

Section B – WIRAB Supplemental Financial Information

2017 Business Plan and Budget

Section B – Supplemental Financial Information

Working Capital Reserve

WIRAB projects it will have a Working Capital Reserve of \$426,978 on December 31, 2016. WIRAB's reserve policy, unchanged from previous years, is to maintain a Work Capital Reserve of \$100,000. The surplus reserve results in a \$326,978 reduction in WIRAB's funding requirement for 2017. Table B.1 shows WIRAB analysis of its Working Capital Reserve.

WIRAB - Working Capital Reserve Analysis 2016-2017	
STATUTORY	
Beginning Working Capital Reserve (Deficit), December 31, 2015	456,330
Plus: 2016 Funding (from LSEs or designees)	1,239,998
Plus: 2016 Other funding sources	650
Minus: 2016 Projected expenses & capital expenditures	(1,270,000)
Projected Working Capital Reserve (Deficit), December 31, 2016	426,978
Desired Working Capital Reserve, December 31, 2017¹	100,000
Minus: Projected Working Capital Reserve, December 31, 2016	(426,978)
Increase(decrease) in funding requirement to achieve Working Capital Reserve	(326,978)
2017 Expenses and Capital Expenditures	1,229,080
Less: Penalty Sanctions ²	0
Less: Other Funding Sources	(650)
Adjustment: To achieve desired Working Capital Reserve	(326,978)
2017 NERC Assessment	901,452

¹ On June 29, 2009 WIRAB members approved a desired working capital reserve of \$100,000. The reserve consists of the following components: \$100,000 for contingencies.

² Penalty sanctions are not applicable to WIRAB

Table B-1. Working Capital Reserve Analysis 2016 – 2017.

Budget Projections for 2018-2019

WIRAB - Statement of Activities and Change in Working Capital 2017 Budget & 2018 and 2019 Projections							
STATUTORY							
	2017 Budget	2018 Projection	Variance 2018 Projection v 2017 Budget		2019 Projection	Variance 2019 v 2018 Projections	
			Over(Under)	% Change		Over(Under)	% Change
Funding							
WIRAB Funding							
Assessments	\$ 901,452	\$ 1,269,288	\$ 367,836	40.8%	\$ 1,321,639	\$ 52,351	4.1%
Penalty Sanctions	-	-	-	-	-	-	-
Total WIRAB Funding	\$ 901,452	\$ 1,269,288	\$ 367,836	40.8%	\$ 1,321,639	\$ 52,351	4.1%
Membership Dues	-	-	-	-	-	-	-
Testing Fees	-	-	-	-	-	-	-
Services & Software	-	-	-	-	-	-	-
Workshops	-	-	-	-	-	-	-
Interest	650	650	\$ -	0.0%	750	\$ 100	15.4%
Miscellaneous	-	-	-	-	-	-	-
Total Funding (A)	\$ 902,102	\$ 1,269,938	\$ 367,836	40.8%	\$ 1,322,389	\$ 52,451	4.1%
Expenses							
Personnel Expenses							
Salaries	465,653	484,279	18,626	4.0%	508,493	\$ 24,214	5.0%
Payroll Taxes	-	-	-	-	-	-	-
Benefits	-	-	-	-	-	-	-
Retirement Costs	-	-	-	-	-	-	-
Total Personnel Expenses	\$ 465,653	\$ 484,279	\$ 18,626	4.0%	\$ 508,493	\$ 24,214	5.0%
Meeting Expenses							
WIRAB Meetings	\$ 60,900	\$ 60,900	\$ -	0.0%	\$ 62,727	\$ 1,827	3.0%
Travel	99,500	101,430	\$ 1,930	1.9%	104,473	\$ 3,043	3.0%
Conference Calls	6,000	6,000	\$ -	0.0%	6,000	\$ -	0.0%
Total Meeting Expenses	\$ 166,400	\$ 168,330	\$ 1,930	1.2%	\$ 173,200	\$ 4,870	2.9%
Operating Expenses							
Consultants & Contracts	\$ 150,000	\$ 150,000	\$ -	0.0%	\$ 150,000	\$ -	0.0%
Office Rent	-	-	-	-	-	-	-
Office Costs	-	-	-	-	-	-	-
Professional Services	-	-	-	-	-	-	-
Miscellaneous	-	-	-	-	-	-	-
Depreciation	-	-	-	-	-	-	-
Total Operating Expenses	\$ 150,000	\$ 150,000	\$ -	0.0%	\$ 150,000	\$ -	0.0%
Total Direct Expenses	\$ 782,053	\$ 802,609	\$ 20,556	2.6%	\$ 831,693	\$ 29,084	3.6%
Indirect Expenses	\$ 447,027	\$ 467,329	\$ 20,302	4.5%	\$ 490,696	\$ 23,367	5.0%
Other Non-Operating Expenses	\$ -	\$ -	\$ -	-	\$ -	\$ -	-
TOTAL BUDGET (B)	\$ 1,229,080	\$ 1,269,938	\$ 40,858	3.3%	\$ 1,322,389	\$ 52,451	4.1%
CHANGE IN WORKING CAPITAL (=A-B)¹	\$ (326,978)	\$ -	\$ 326,978	-	\$ -	\$ -	-
FTEs	5.50	5.50	-	0.0%	5.50	-	0.0%

¹ Fixed Asset included in Indirect Expenses.

Table B-2. Budget 2016 Compared with 2017-2018 Projections.

WIRAB projects a 3.3% increase to its annual budget in 2018 and a 4.1% increase in 2019. These increases reflect expected cost-of-living adjustments to personnel expenses for employees working in Denver, Colorado.

Section C – Non-Statutory Activities

2017 Business Plan and Budget

Section C – Non-Statutory Activities

WIRAB does not engage in non-statutory activities.

Section D – Additional Consolidated Financial Statements

2017 Business Plan and Budget

Section D – Additional Consolidated Financial Statements

Statement of Financial Position

Table D-1 provides WIRAB's Statement of Financial Position as of these dates:

- As of December 31, 2015, per audit
- As of December 31, 2016, projected
- As of December 31, 2017, as budgeted

WIRAB - Statement of Financial Position			
STATUTORY			
	As of December 31, 2015 (Audit)	As of December 31, 2016 (Projected)	As of December 31, 2017 (Budgeted)
Assets			
Cash and Investments	\$ 456,330	\$ 240,000	\$ 100,000
Total Assets	\$ 456,330	\$ 240,000	\$ 100,000

Table D-1. Statement of Financial Position, Three-Year Comparison

Appendix A Organization Chart

The WIRAB Organization Chart is shown below.

