

# NERC

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

# ERO 2020 Work Plan Priorities – Final Results

Mark Lauby, Senior Vice President and Chief Engineer  
Corporate Governance and Human Resources Committee Meeting  
February 3, 2021

RELIABILITY | RESILIENCE | SECURITY



1. Expand risk-based focus in Standards, Compliance Monitoring, and Enforcement
2. Assess and catalyze steps to mitigate known and emerging risks to reliability and security
3. Build a strong, E-ISAC-based security capability
4. Strengthen engagement across the reliability and security ecosystem in North America
5. Capture effectiveness, efficiency, and continuous improvement opportunities








Objective has been fully achieved













Objective was only partially achieved as management decided to prioritize other activities and/or to not engage industry during acute response phase of the pandemic





Objective not reached due to COVID restrictions on travel and assembly (e.g., sponsored conferences and workshops)

- Impacts of COVID include travel cancellations, reduced stakeholder capacity, or overall reprioritization of efforts
- 59 individual work plan objectives approved in February
  - 45 complete 
  - 8 partially achieved, management slowed to unburden industry 
  - 6 not reached due to impacts from COVID 
- 7 activities added in response to COVID or current events
  - 5 complete 
  - 2 continuing to track for completion after COVID 

- Projected not to be completed to completed  → 
  - Focus Area 2: Energy storage
- Projected not to be completed to partially completed  → 
  - Focus Area 1: Resource availability in operational timeframe
  - Focus Area 1: TPL enhancement with fuel scenarios
  - Focus Area 5: Align release
  - Focus Area 5: Standards Efficiency Review
- Projected at risk for completion to completed  → 
  - Focus Area 2: BES initiating wildfires
  - Focus Area 3: Coordination with the intelligence community
  - Focus Area 3: E-ISAC MOU relationships

- Projected at risk for completion to partially completed  → 
  - Focus Area 1: Design basis for fuel assurance
  - Focus Area 2: Data for resilience and recovery
  - Focus Area 3: CRISP participation
- Projected for completion to partially completed  → 
  - Focus Area 2: ERO's role with increased DER

## New Activities

- Projected for completion to partially completed  → 
  - Focus Area 2: Update Severe Impact Resilience Report
  - Focus Area 2: Publish pandemic lessons learned

## Key Objectives

### 1. Implement strategy for fuel assurance standards (including cold weather) for BPS operations and planning:

Complete the development and submit to FERC a Board approved standard focused on resource availability in the operational time frame

Fuel assurance guideline approved

Identify tools needed for planners to include fuel scenarios, and work with industry to develop them

Identify design basis scenarios for use in the planning horizon

Begin enhancement of NERC's TPL Standards to include fuel scenarios for normal and extreme events (2021–2022)

## Status Highlights (Through Q4)



SAR accepted by SC and drafting team appointed; extensive stakeholder outreach needed to complete



Approved by PC in March



Included in fuel assurance guideline above and in IRC/NERC Whitepaper



EGWG continues to discuss; IRC/NERC Energy Whitepaper



Reprioritized due to required stakeholder engagement. IRC/NERC Energy Whitepaper

## Key Objectives

### 2. Complete the recommendations in the Supply Chain report:

Implement the supply chain recommendations, continue to assess their effectiveness and sufficiency, and determine further actions, if any, based on the seriousness and nature of risks

Work with industry and the NATF to develop consistency and certainty in vendor audits

### 3. Consistently embed internal control activities within the compliance monitoring program

## Status Highlights (Through Q4)



Adopted at the November Board meeting



Meetings with NATF ongoing



Ongoing activities, including:

- Oversight activities
- Annual CMEP staff training
- Included in CMEP Implementation Plan and Practice Guides



## Key Objectives

### 1. Identify performance trends and develop lessons learned, recommendations, and/or implement mitigations:

Protection system misoperations

Reduced situational awareness from loss of EMS

Unacceptable inverter performance

Increased amounts of DER

Reduce potential for the BES initiating wildfires

Develop RSTC-approved work plan to implement EMP Task Force recommendations

## Status Highlights (Through Q4)



Included in SOR report



Completed Monitoring and SA Conference; finalized special assessment



SC accepted IRPTF/RSTC-recommended SAR; additional white papers, guidelines, and reports in development



SPIDER WG/RSTC-recommended SAR sent to SC; Posted two guidelines



Resource guide completed; Will present to RSTC in March



Work Plan Approved by RSTC

## Key Objectives

### 2. Implement two lessons learned and best practices from GridEx V, including improved use and collaboration with SAFNRv3:

Two communication drills between E-ISAC Watch Floor and BPSA

Four drills on developed use cases

### 3. Identify and assess emerging factors impacting BPS reliability and make mitigation recommendations:

Assess energy adequacy in the 2020 LTRA

Technical assessment on energy storage technologies, applications, and projections

Develop position paper on the ERO's role to ensure BPS reliability with increased DER lower than BES thresholds

## Status Highlights (Through Q4)



Two communication drills completed



Four drills completed



Initial data and results received; analysis for LTRA in progress



Draft complete; engaging RSTC in March 2021



In progress in 2020. To be completed in early 2021

## Key Objectives

### 3. Identify and assess emerging factors impacting BPS reliability and make mitigation recommendations (cont'd):

Develop data requirements and metrics for quantifying BPS resilience and recovery

Improve models, identify simulation needs, and provide guidance to address reliability considerations from DER penetration

Begin addressing cybersecurity risks in the planning and operational time horizon

## Status Highlights (Through Q4)



SOR report contains SRI metrics on resilience; data requirements drafted, delayed industry engagement/Section 1600 load loss data collection into 2021 due to COVID



SAR on modeling accepted by SC. Two Guidelines produced.



Stood up BPS and Grid Transformation department; work initiated

## Key Objectives

### 1. Strategy:

Complete Strategic Plan refresh with MEC support

Develop performance management process driven by agreed metrics

### 2. Information Sharing

Increase overall information sharing by partners and industry through targeted outreach

Expand CRISP participation and capture the DOE “+30” opportunity

Improve coordination and connectivity to Intelligence Community, especially DOE/CESER, DHS/CISA, and DOD/NSA

Effectively activate existing MOU-based relationships (MS ISAC, DNG ISAC, IESO pilot)

Expand Watch Operations to 24x7

## Status Highlights (Through Q4)



Completed and Board Approved



Metrics approved by MEC



Completed



CRISP participation continues to expand but COVID has impacted installation of additional sensors



Regular engagement with DHS, DOE and other US Government Agencies



New agreement with IESO executed; Joint products developed with DNG and MS ISACs



Fully operational

## Key Objectives

### 3. Analysis:

Increase member shared joint analytical products developed with partners

Increase member shared content enriched by E-ISAC analysis

Unclassified Threat Workshop survey results (relevant, unique, timely, actionable content)

Implement long-term data platform and demonstrate value-add

### 4. Engagement:

Expand participation in Industry Engagement Program

Institutionalize Canadian engagement effort and ensure value add across international border

Implement and realize value from new CRM system

Continue to grow GridSecCon and evaluate outsourcing potential for low value added work

## Status Highlights (Through Q4)



Products & procedures developed



57% increase YTD compared to 2019.



Deferred due to COVID-19



E-ISAC Data Platform operational, including enhanced member dashboards and metrics canvas



Deferred due to COVID-19, Evaluating virtual options for 2021



Extensive outreach with CEA



Increased membership 25%; converted to Salesforce platform



Cancelled; RFP issued for 2021 for virtual conference

## Key Objectives

### 1. Expand outreach/coordinated ERO Enterprise communications with stakeholder/policy organizations:

Enhance existing and establish new relationships with key industry associations and stakeholder organizations

Develop a coordinated approach for NERC's and Regional Entities' outreach to FERC

Leverage Regional Entities for engagement with state entities and organizations

Expand coordinated outreach to Canada related to MOUs as well as regulatory authorities

Gain support for recommendations in NERC's reliability assessments

## Status Highlights (Through Q4)



Expanded trades meetings and outreach; increased communications w/NARUC, Canadian entities, & US government partners; EU



Established coordinated calls with FERC; collaboration with FERC on COVID-19 guidance



RE state outreach reps engaged; NERC and RE coordination on SOR and LTRA report messaging. Met with NARUC



Expanded Canadian outreach coordinated with REs; update on MOUs provided during NERC Board and Canadian regulator meeting



Expanded outreach to states on resource adequacy; identifying engagement plan for DER and natural gas risks

## Key Objectives

### 2. Work with ERO Enterprise Communications Group (ERO CG) to refine and further develop the ERO Communication Strategy, to:

Enhance existing and establish new relationships with key industry associations and stakeholder organizations

Amplify initiatives and messages through expanded use of social media

Support the ERO Executive Committee (EC) pledge to develop and share harmonized messaging across the ERO Enterprise

## Status Highlights (Through Q4)



Government Communication Working Group calls; Chartered Regional Communicators group, and work plan developed from Communication Strategy



Coordination across ERO Enterprise to build on social media networks and developing metrics on social media impacts



Finalized Communication Strategy and establishing work plan; talking points; coordinated COVID-19 communications. Successful NARUC meeting

## Key Objectives

### 3. Plan resource, and execute joint meeting and conferences where possible:

Joint Regional Entity supported Human Performance conference with NATF

Resiliency Summit with NATF and EPRI

Storage and Frequency Response with NAGF

Regional Entity focused Supply Chain and Facility Rating conferences and best practices with NATF

### 4. Support corollary activities within industry and trades, e.g., U.S. DOE's North American Energy Resilience Model (NAERM), IEEE Standard 2800

## Status Highlights (Through Q4)



September conference rescheduled to virtual 2021 Spring sessions



Cancelled; exploring options for 2021



Cancelled; exploring options for 2021



NATF webinars on Facility Ratings and Identifying and Managing Potential Compromise of Network Interface Cards held Oct 22



Collaboration efforts ongoing, including data gathering, meeting participation, and model validation



## Key Objectives

### 1. Complete the “Big 3”:

Roll out Align Release 1.0, supported by stakeholder outreach and education, end use training, and business unit readiness activities

Complete the CIP and Phase II of the O&P Standards Efficiency Reviews (SERs)

Successful implementation of the RSTC

### 2. ERO Enterprise Biennial Effectiveness Survey:

Implement plans addressing key 2018 findings

Rethink the biennial survey working with the CCC

## Status Highlights (Through Q4)



Delayed until 2021 due to coordination and Secure Evidence Locker development



O&P Phase II SER completed; CIP SER will continue into 2021 due to COVID impacts



RSTC established



Action plans established in 2019 & incorporated in work plans; activities completed



Discontinued survey’s going forward. Enable targeted, individual program outreach

## Key Objectives

### 3. NERC:

Finish 2020 at or below budget and maintain at least \$3M in operating reserves

### 4. Regional Entities:

With Regional Entity and stakeholder feedback, continue evaluation of compliance monitoring and enforcement processes for efficiency

Implement opportunities to centralize and/or standardize processes

### 5. Transformation achieves process alignment and shared resources

## Status Highlights (Through Q4)



Current year-end projections show NERC under budget with above \$3M in reserves



Ongoing activities, including:

- Align & SEL development
- ROP revisions
- CCC working on methods for gathering feedback
- Enterprise-wide agreements for IT tools (Webex, OnSolve)
- External communications coordination
- Conducted three ERO Enterprise Leadership webinars and developed Transformation Roadmaps



## Key Objectives

### Focus Area 2:

Publish Level 2 Alert on Pandemic Mitigation Response

Pandemic Preparedness and Operational Assessment, Winter and Spring 2020

After action review and update report “Severe Impact Resilience” and HILF reports related to pandemic response and mitigation

In coordination with NATF, DOE, and FERC, deliver Pandemic Plans and best practices

Publish Lessons Learned & event report as needed

### Focus Area 5:

After action review and improve NERC's Business Continuity and Crisis Action Plans

## Status Highlights (Through Q4)



Published; report sent to FERC



Published; report sent to FERC



Ongoing review of outcomes and lessons learned. Will publish after COVID



Published on NATF website



Ongoing review of outcomes and lessons learned. Will publish after COVID



Crisis Action Plan updated; Business Continuity Plan working group established

## Key Objectives

### Focus Area 2:

Publish Level 2 Alert for extent of condition for certain Chinese and Russian made equipment as outlined in the May 1, 2020 Presidential Order, *Executive Order on Securing the United States Bulk-Power System*

## Status Highlights (Through Q4)



Published; report sent to FERC



# Questions and Answers

# NERC

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

## Board Self-Assessment and MRC Assessment of Board of Trustees Effectiveness Results

RELIABILITY | RESILIENCE | SECURITY





# Objectives & Methods

- To assess the performance and effectiveness of the NERC Board of Trustees (Board).
- The assessment has 29 questions to be answered by Board members, 23 of which are also answered by MRC members.
- 11 out of 11 Board members participated in the assessment, for a 100% response rate. 20 out of 28 MRC members participated, for a 71% response rate.





# Executive Summary

## Positive Highlights

- Board and MRC members show commitment to the evaluation process by providing thoughtful comments, many with specific suggestions.
- In general, Board ratings of itself are more modest while MRC ratings of the Board are improved from prior years.
- The Board is seen as clearly effective in its overall function.
- 90% of the MRC feels satisfied or very satisfied that the Board listens to its input.

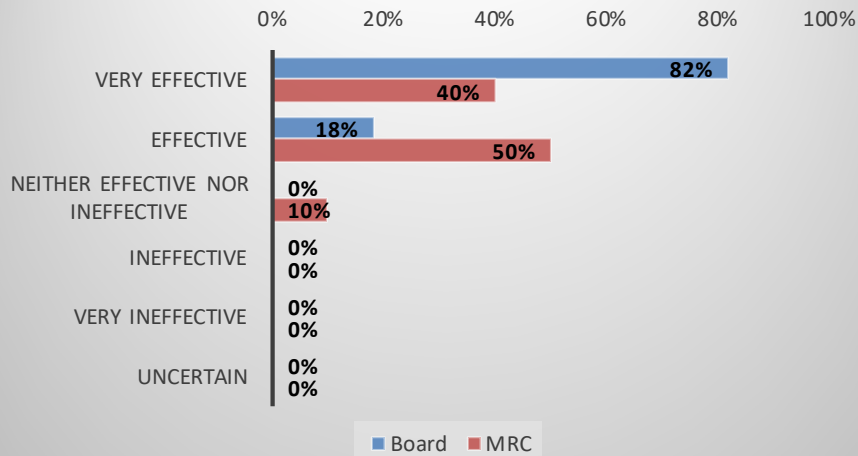
## **Potential Focus Areas (based on scores and analysis of verbatim comments):**

- Examine and evaluate how the Board oversees the Standards Program and identify opportunities for constructive engagement on particular issues.
- Board should continually assess E-ISAC effectiveness as the program functions evolve.
- Board should continually assess as to how risk is monitored and measured throughout the organization.
- Board should continually assess efficiency and effectiveness of meetings and stakeholder engagement.
- Board should continue focus on FERC, State and Provincial Regulators relationships.

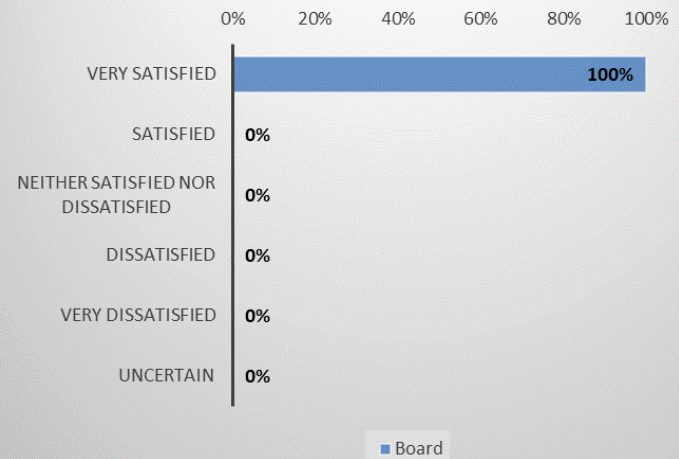


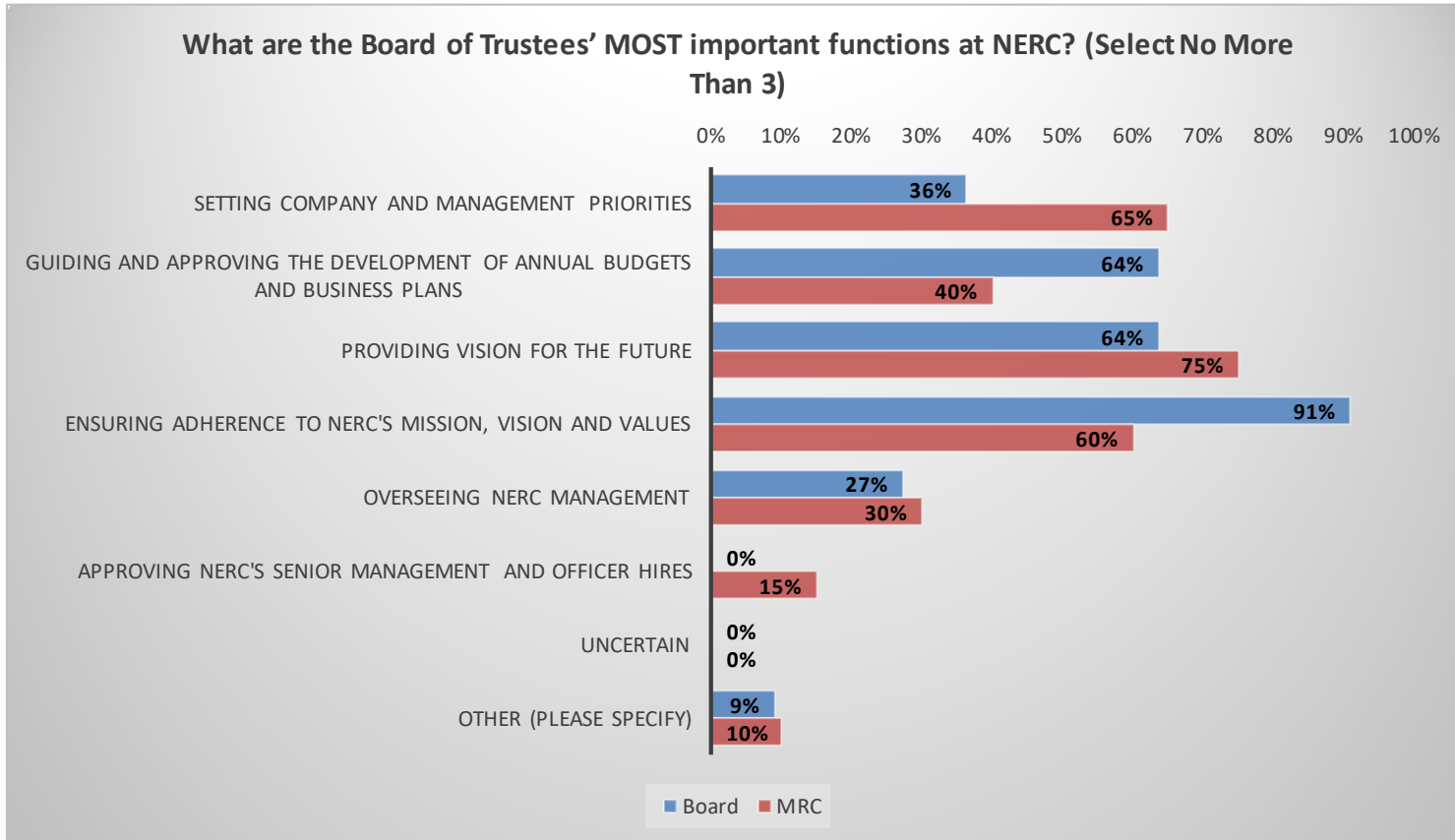
# Overall Effectiveness

Overall, how effective is the Board of Trustees at performing their responsibilities?



Overall, how satisfied are you personally with the job you do working on the Board of Trustees? (Board Only)



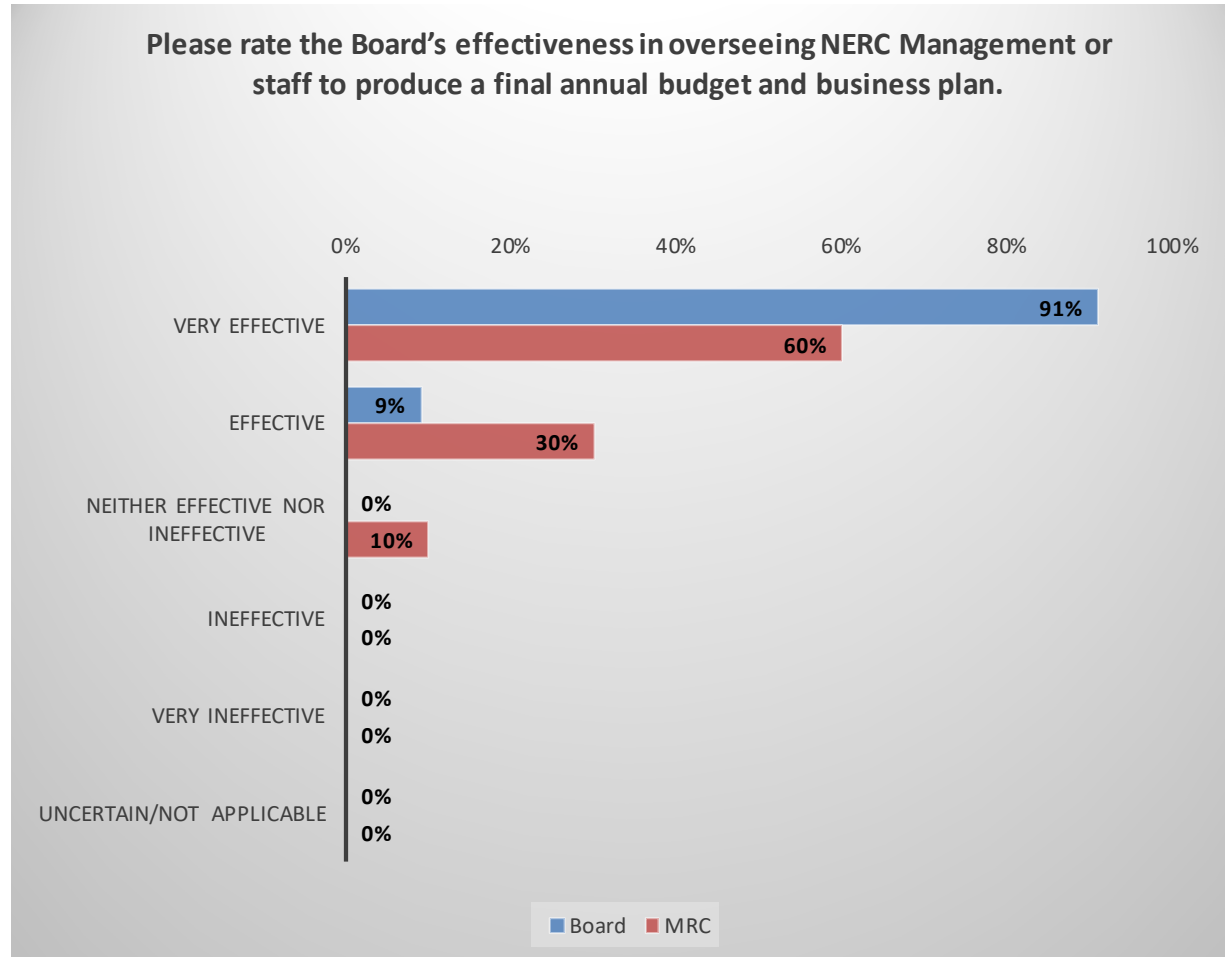


## Other

- *Ensuring that NERC is connected with, anticipating, and responding to the needs of the many stakeholders*
- *Ensuring NERC/ERO as a whole is focusing on the right topics in a rapidly changing environment.*

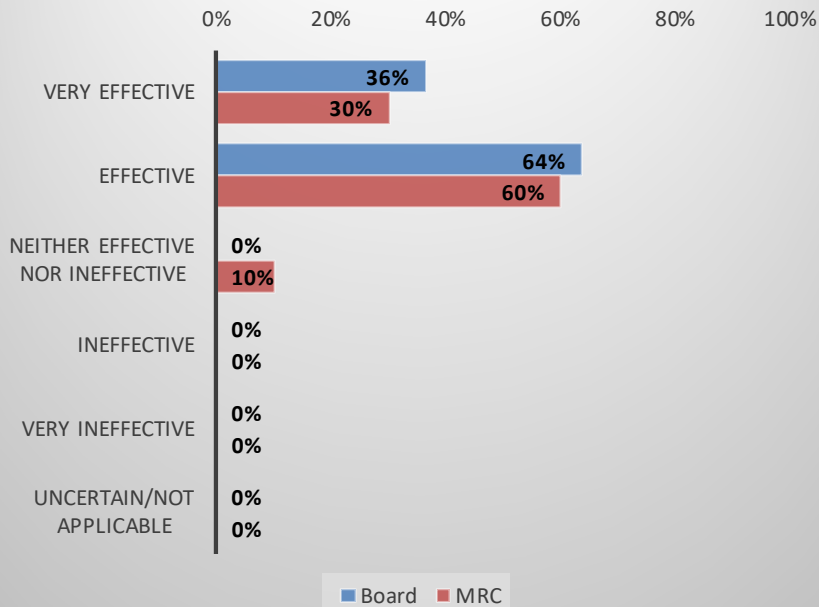


# Strategy

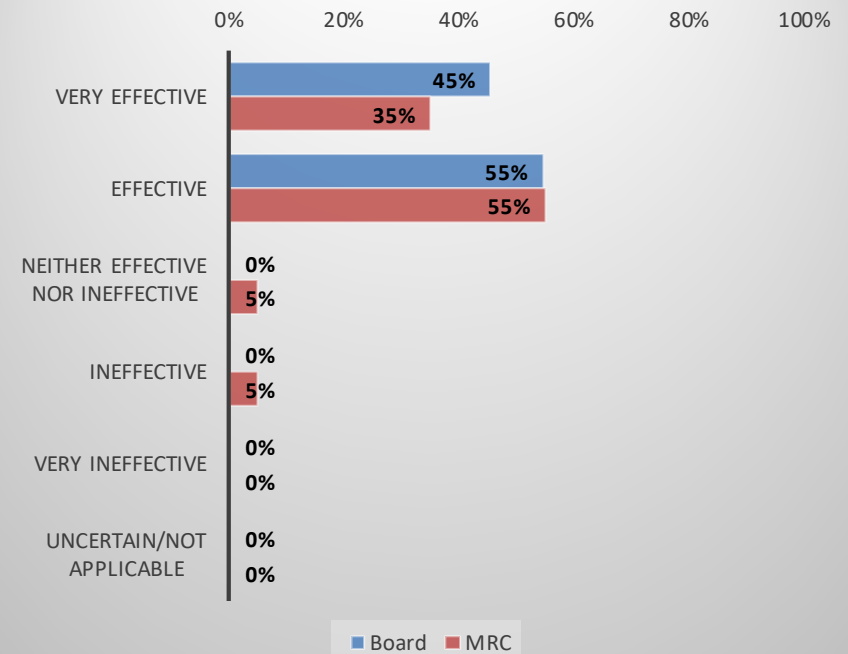




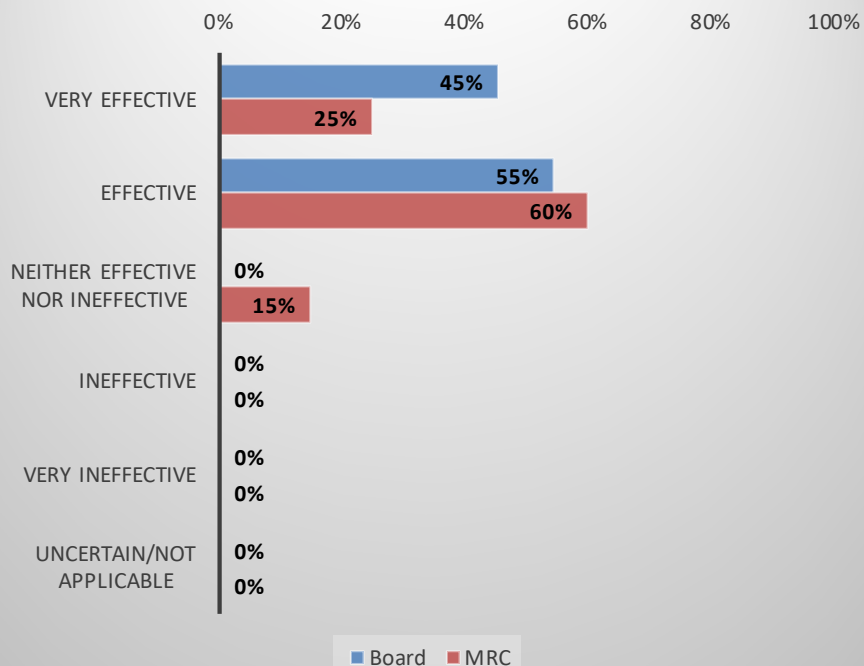
**Board effectiveness staying in tune with issues and trends affecting NERC and the industry**



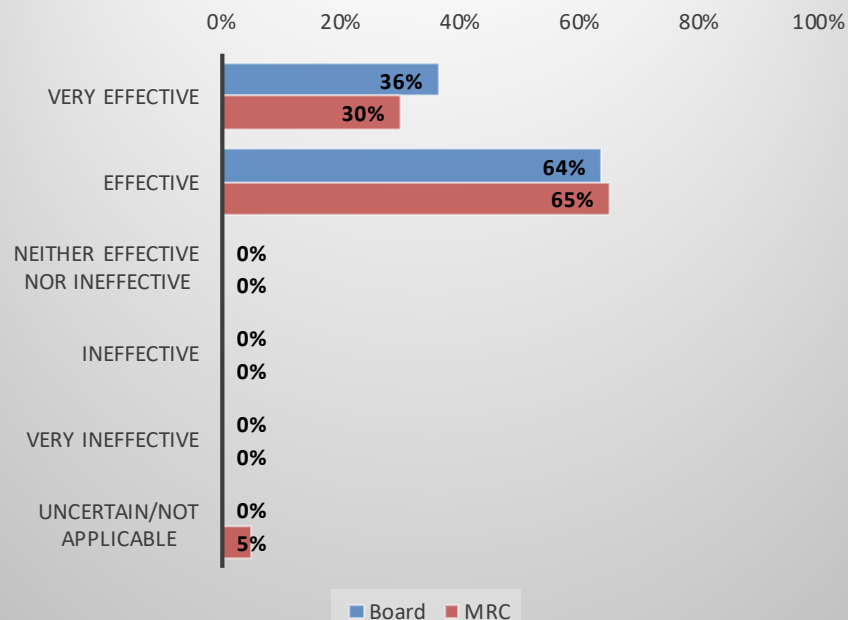
**Board effectiveness setting company priorities**

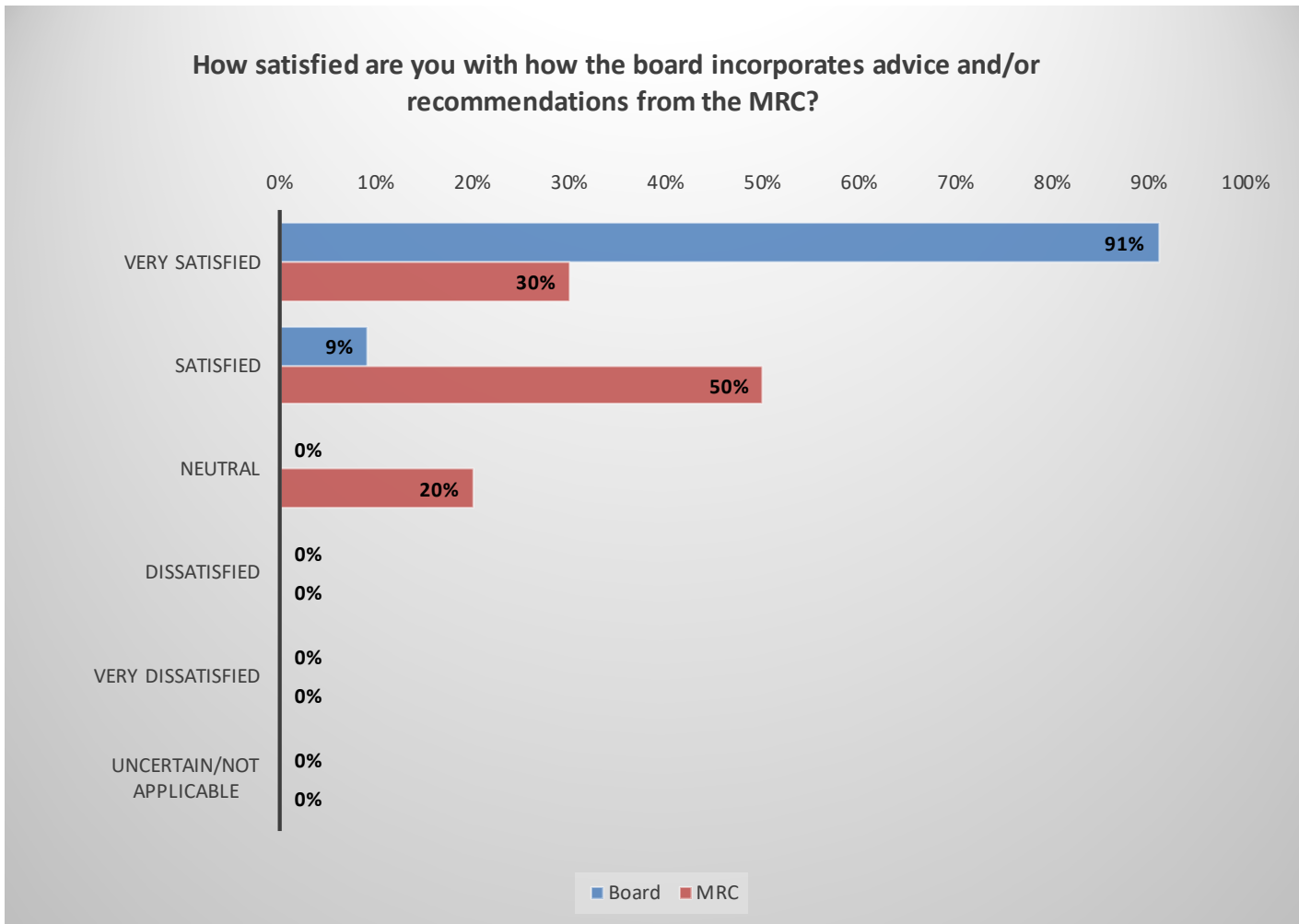


## Board effectiveness providing leadership



## Board effectiveness incorporating the international charter of the North American bulk power system



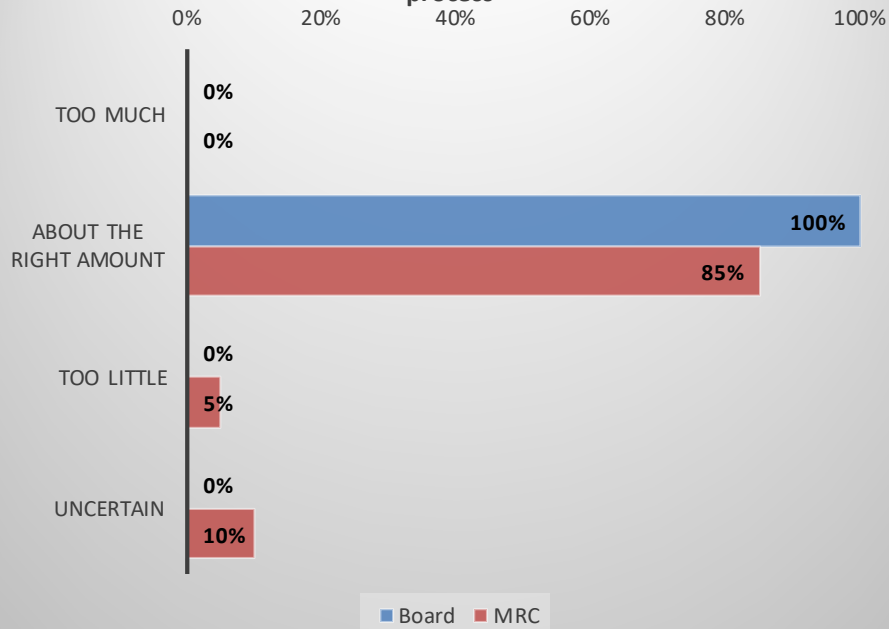


- Trend shows the Board has increased its effectiveness in overseeing NERC management in producing a final annual business plan and budget.
- Trend shows the Board (up from 64%) has increased its effectiveness at incorporating advice and/or recommendations from the MRC.
- Trends shows the Board needs to increase its effectiveness at providing leadership.

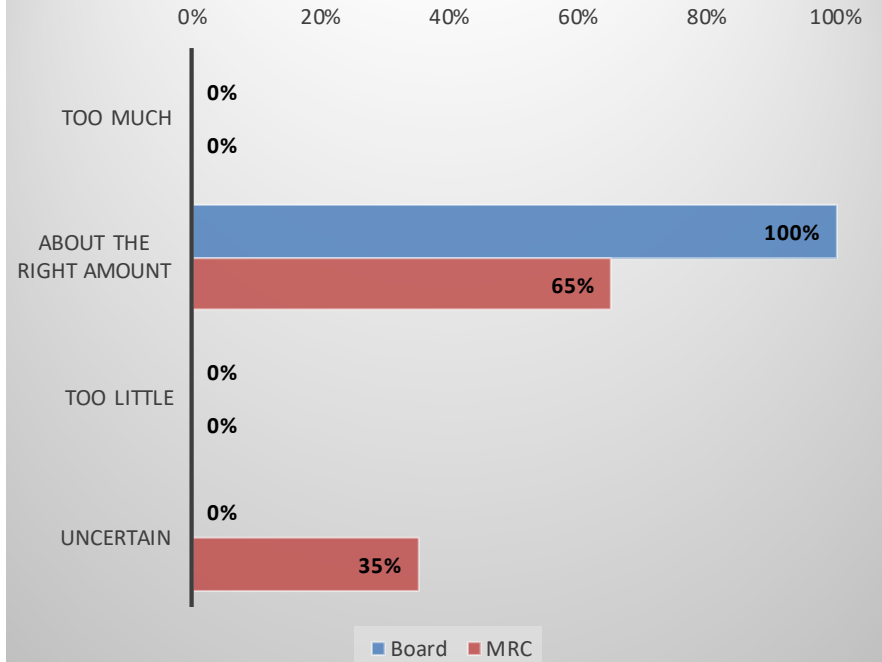


# Oversight

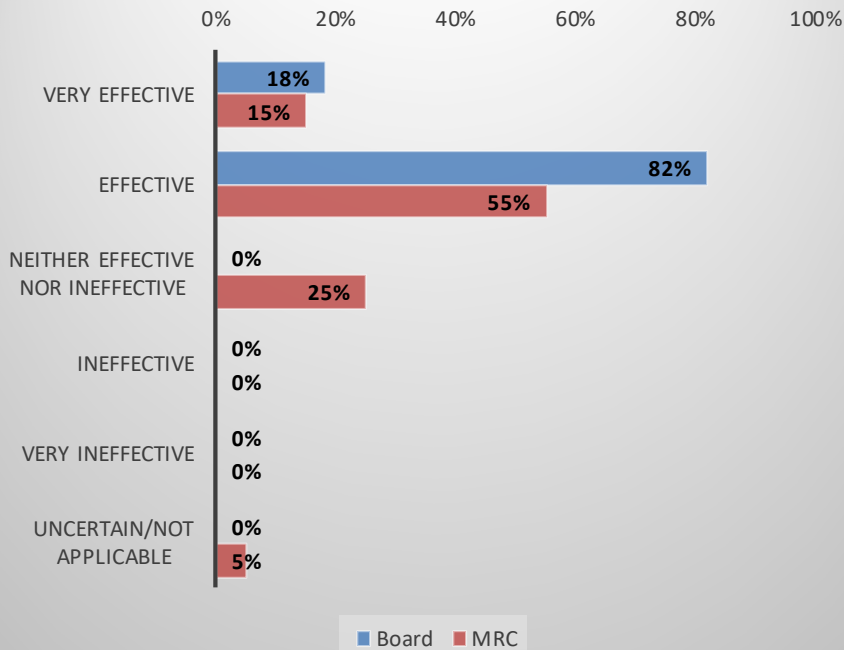
**Board involvement in the ERO Enterprise's (NERC and the Regional Entities) annual business planning and budgeting process**



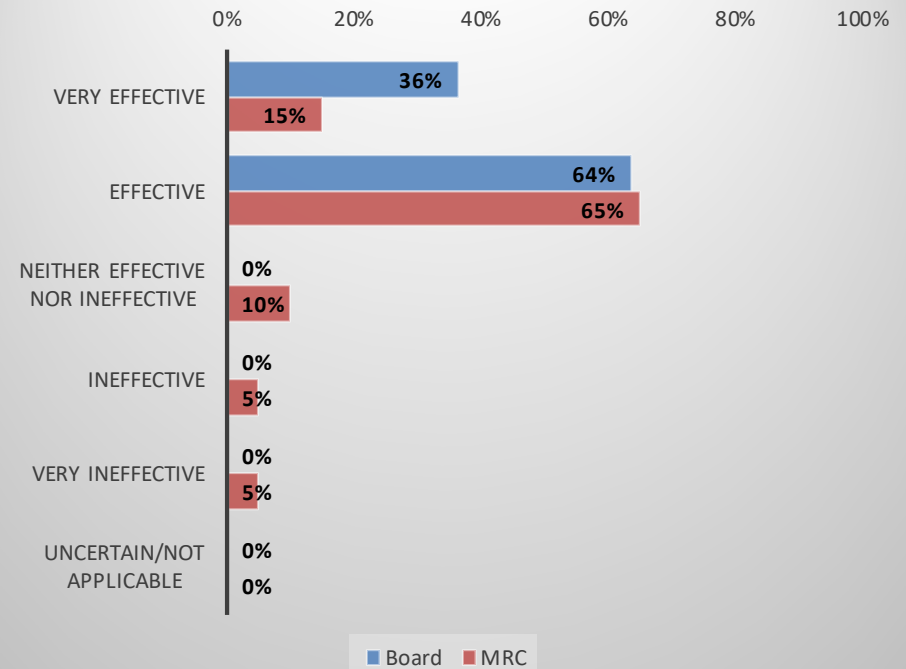
**Board involvement in day-to-day management by NERC's CEO**



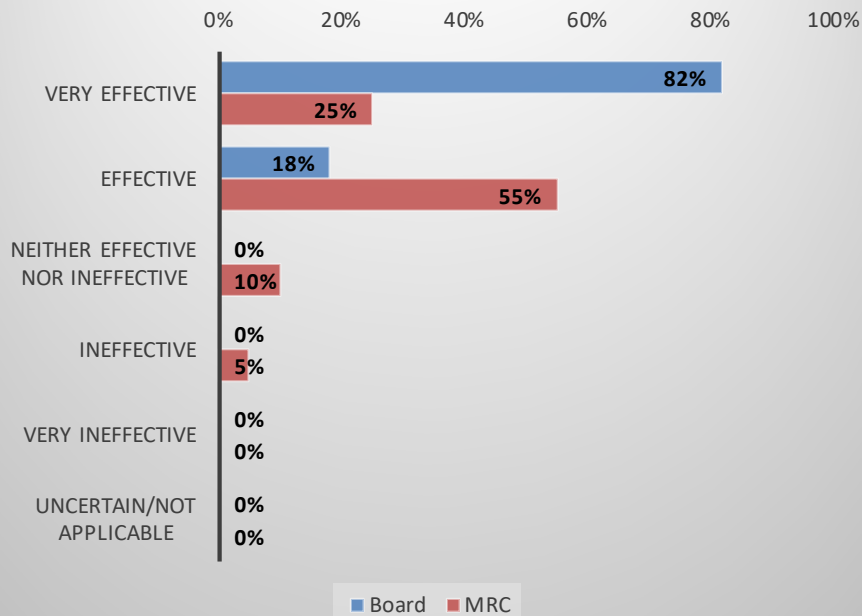
**Board effectiveness at monitoring the efficiency (cost effectiveness) of ERO Enterprise processes**



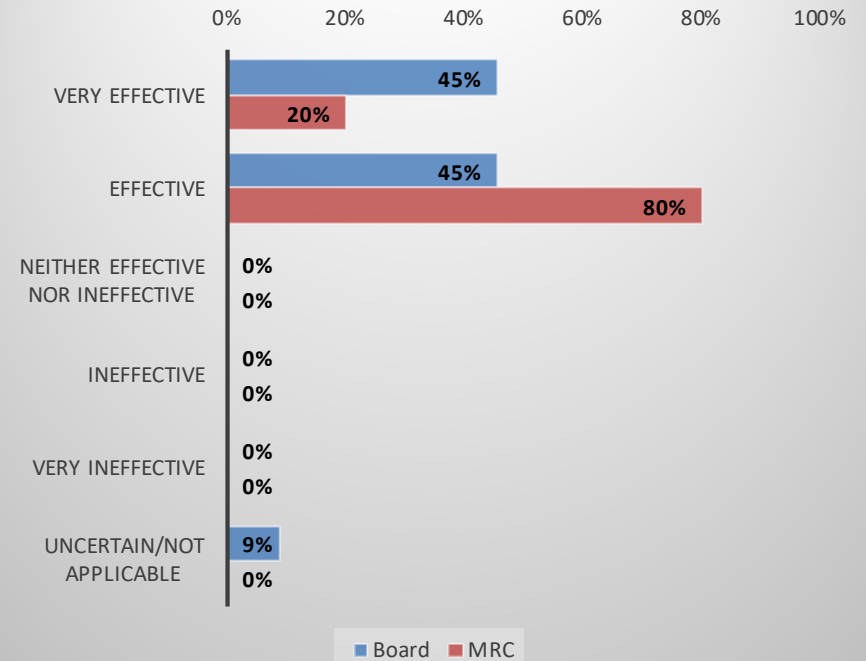
**Board effectiveness at monitoring standards development**



**Board effectiveness at monitoring Compliance Monitoring and Enforcement**

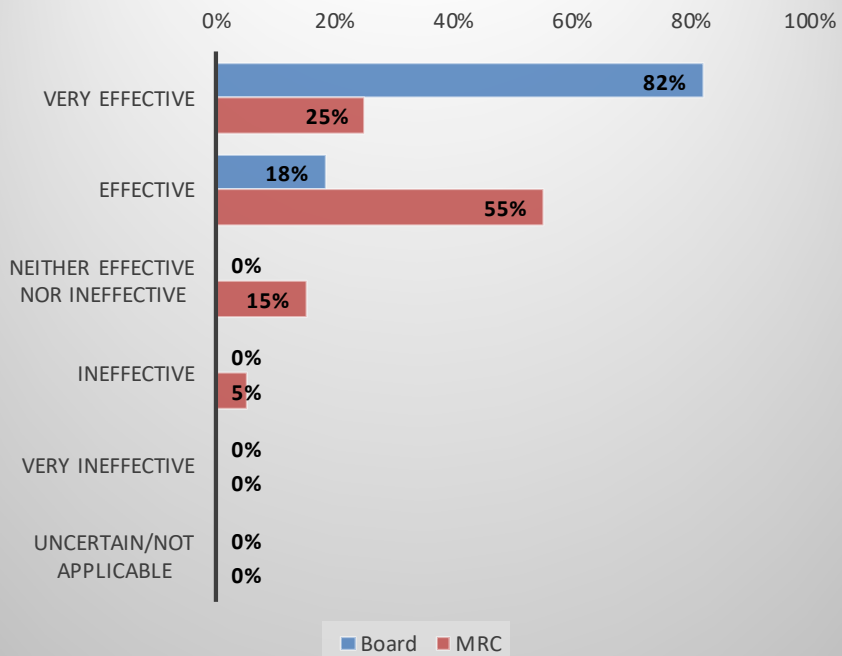


**Board effectiveness at monitoring assessments**

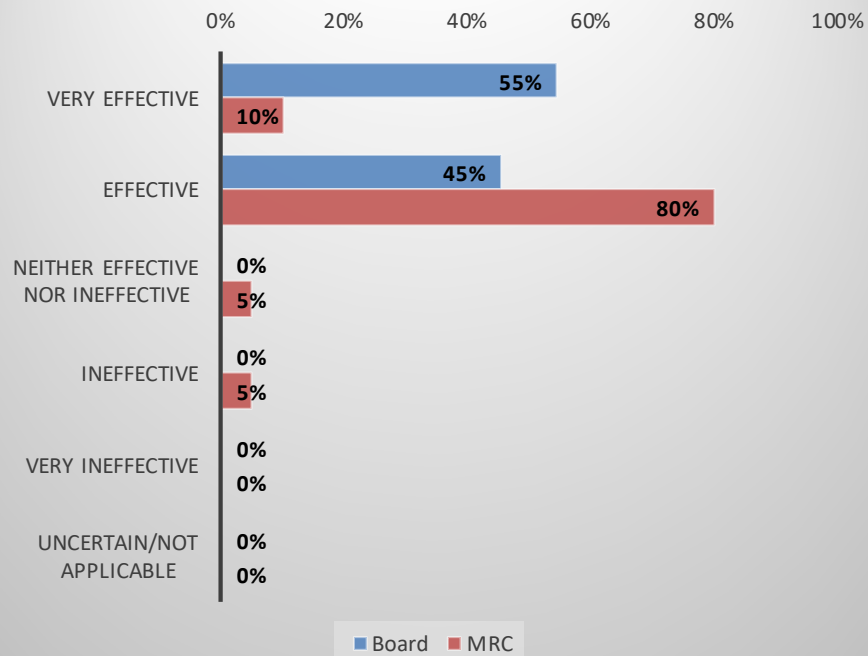




## Board effectiveness at monitoring the E-ISAC



## Board effectiveness at monitoring risk

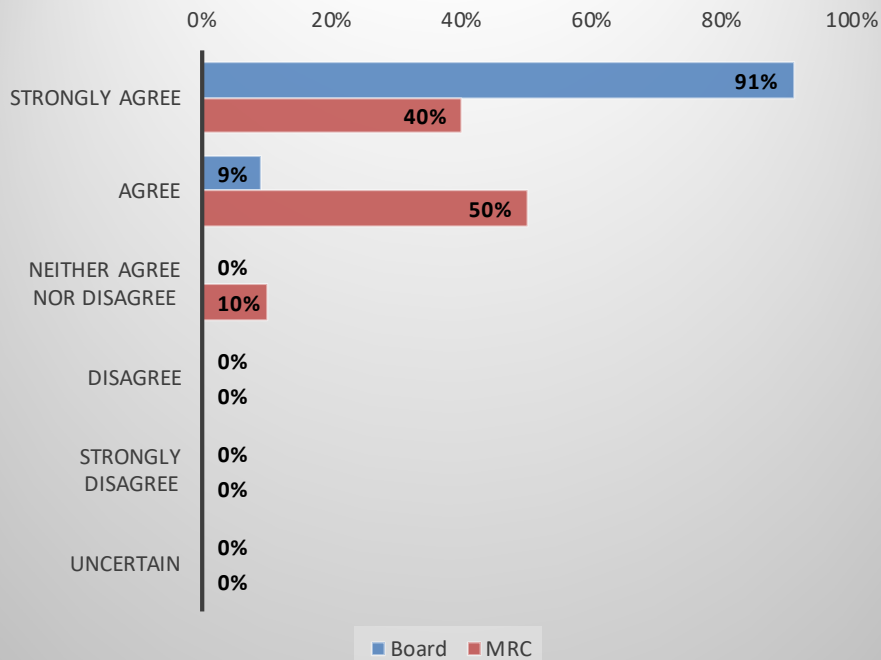


- Trend continues to show that the Board has “about the right amount” of involvement in both the ERO Enterprise’s business planning and budgeting process and day-to-day management by NERC’s CEO.
- Trend shows that the Board believes they are becoming more effective at monitoring the efficiency (cost effectiveness) of ERO Enterprise processes.
- Trend continues to show that the Board should continue to provide focus on standards development.
- Trend continues to show that the Board is increasing its effectiveness in compliance monitoring and enforcement.
- Trend shows a marked improvement in the Board’s evaluation of effectiveness in monitoring the E-ISAC.
- The first year including risk as a category shows this is an area of focus for the Board.

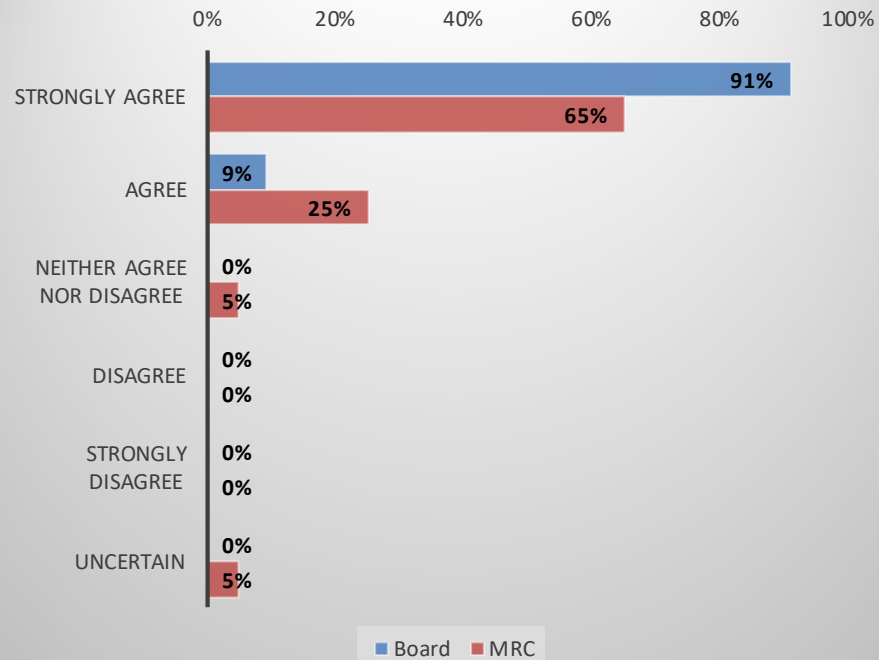


# Stakeholder Relations

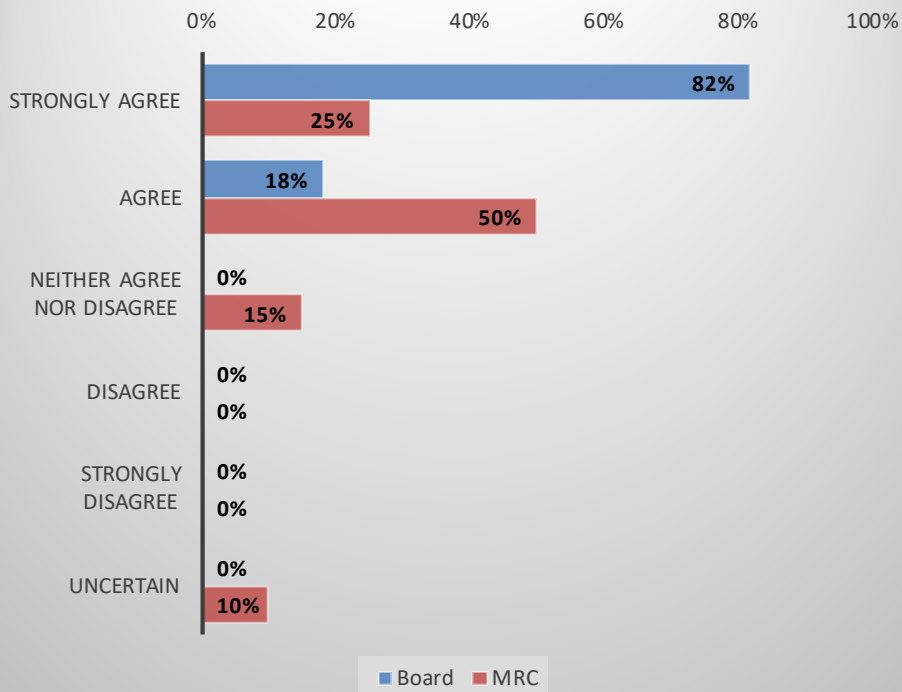
**The Board listens to input from the MRC**



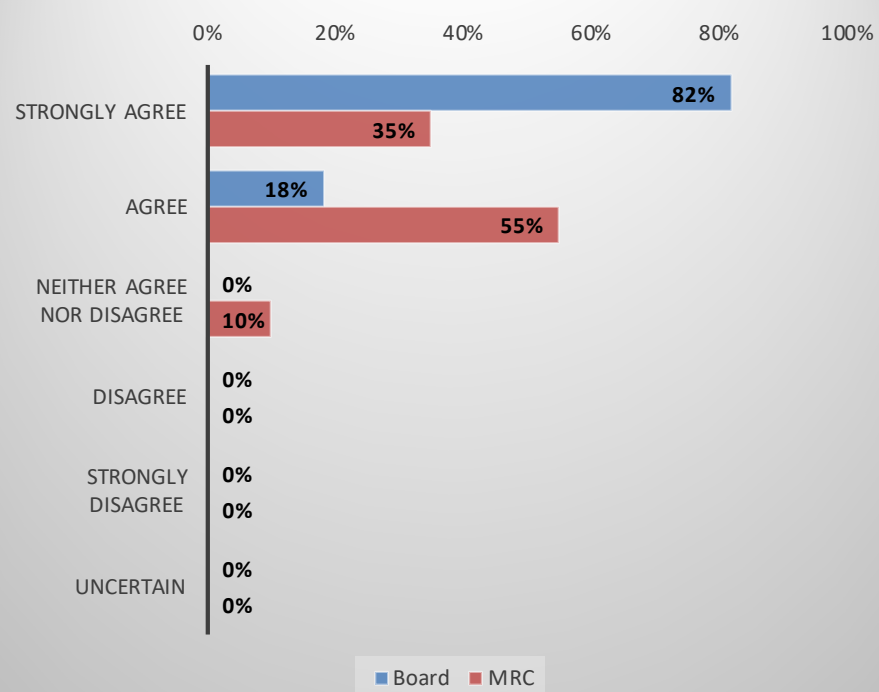
**The Board listens to input from NERC management**



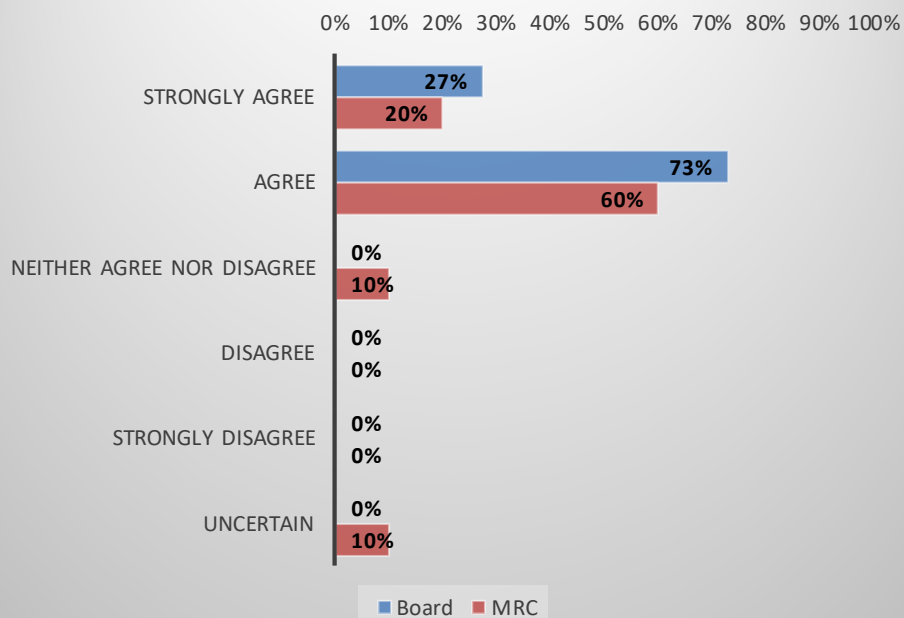
## The Board listens to input from Regional Entities



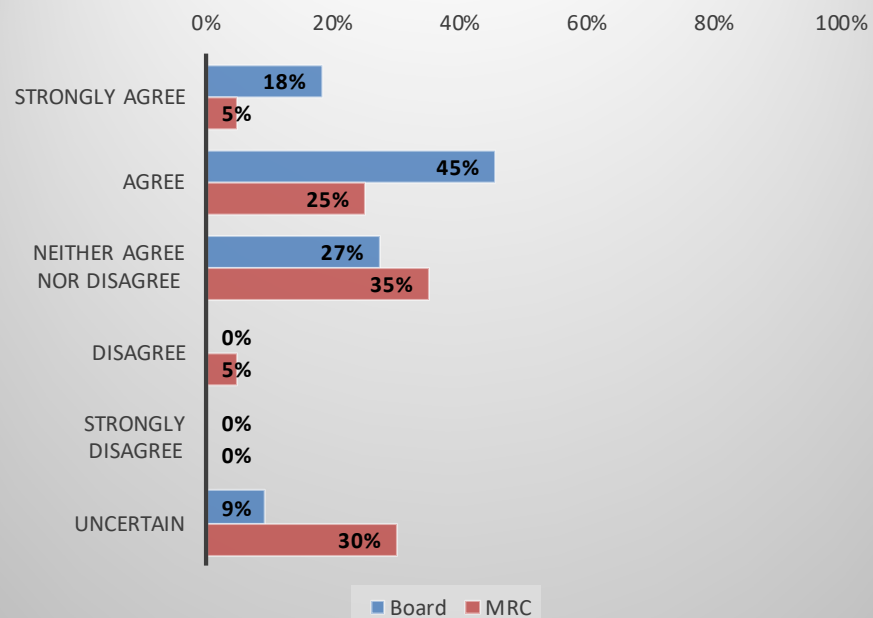
## The Board works effectively with management

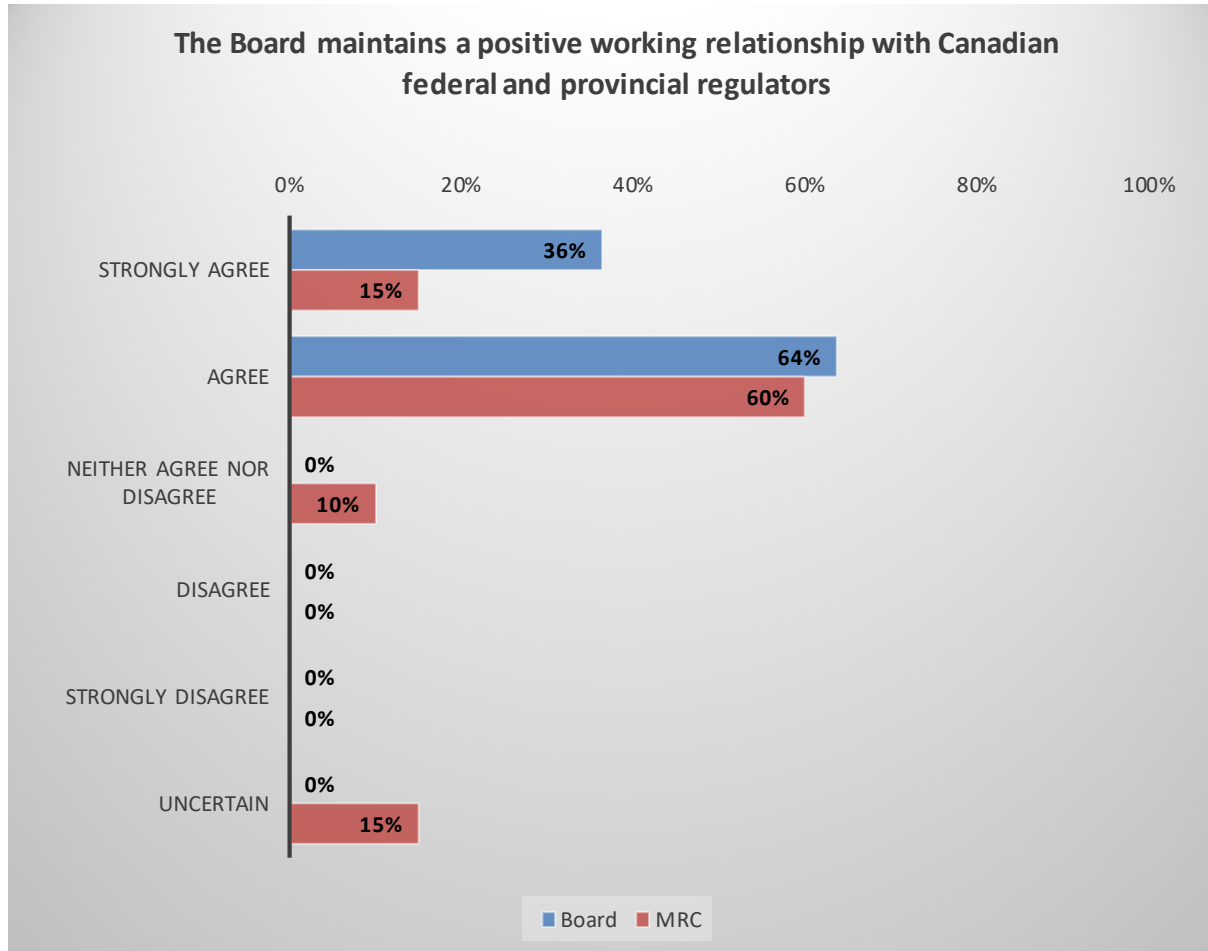


## The Board maintains a positive working relationship with Federal regulators



## The Board maintains a positive working relationship with State regulators





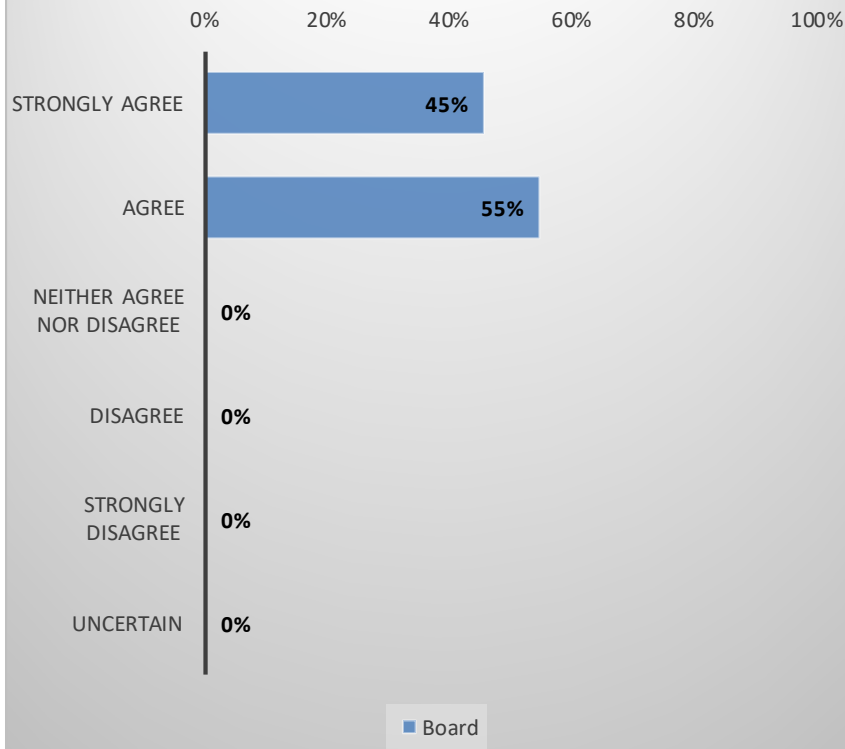
- Trend shows increased agreement in the Board listening to input from NERC management.
- Trend shows increased agreement in the Board listening to input from Regional Entities.
- Trend shows the Board should continue its focus on working effectively with management.
- Trend shows the Board should continue its focus on its working relationships with Canadian federal and provincial, state, and federal regulators.



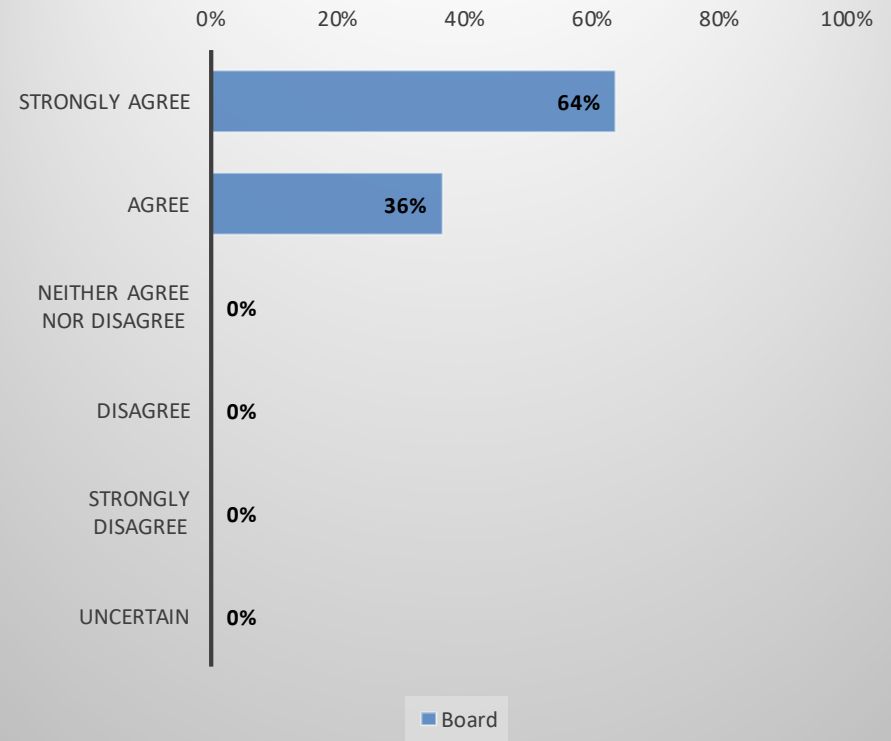


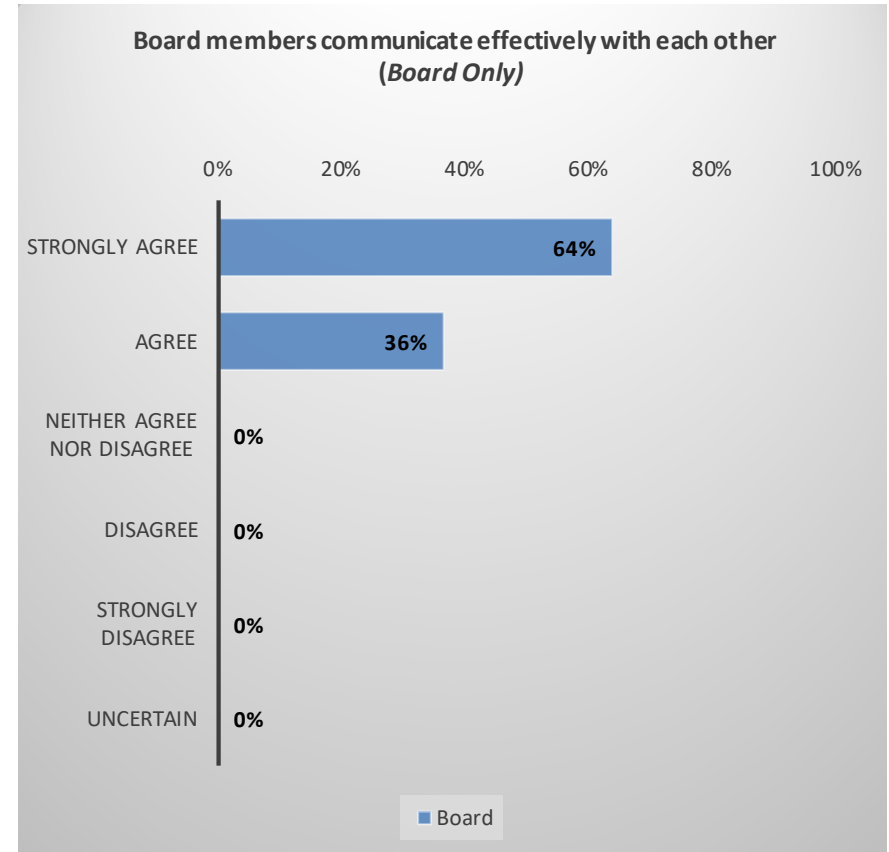
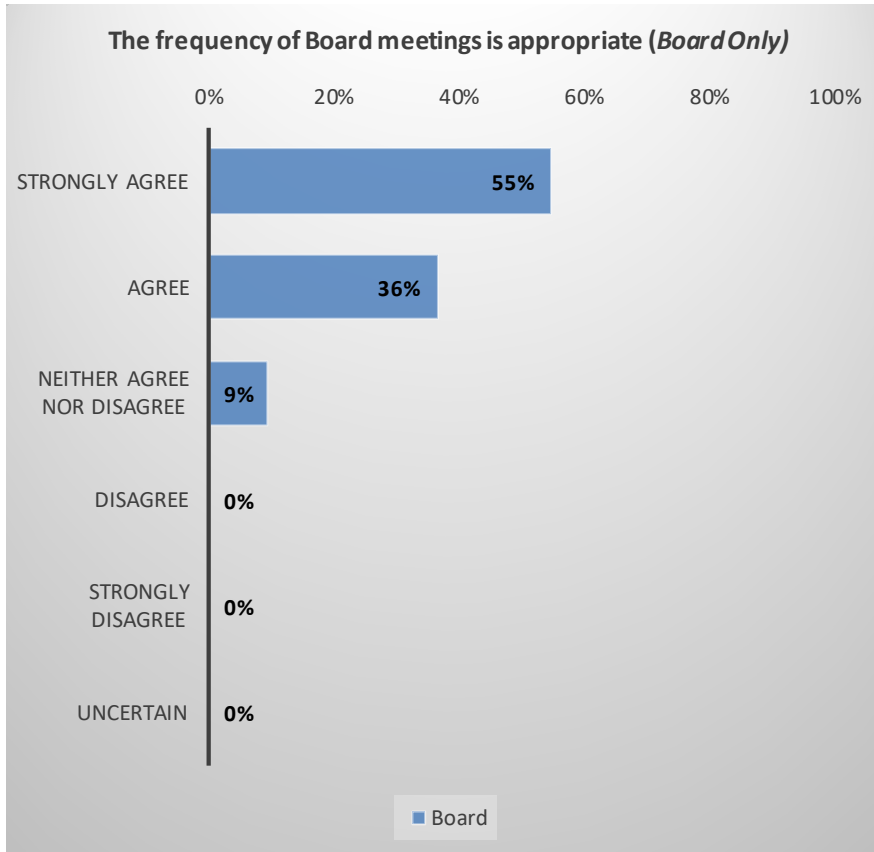
# Board Functioning

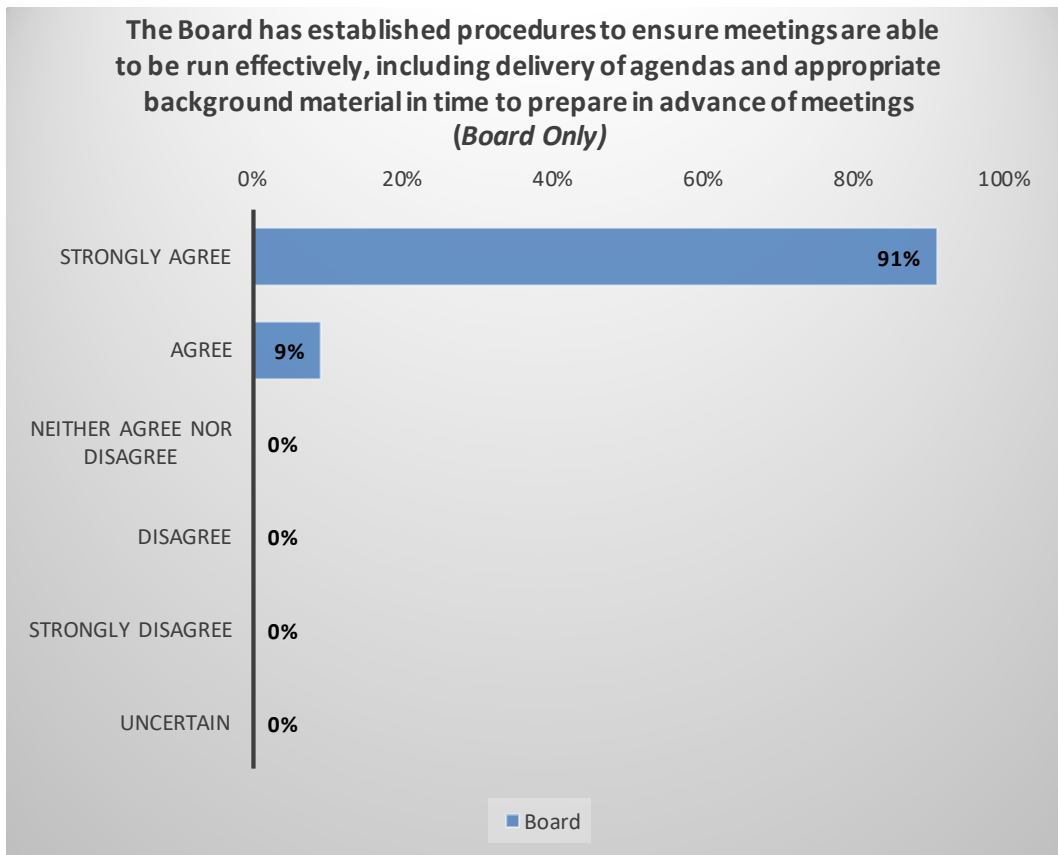
**Board meetings are efficient (Board Only)**



**Board meetings are an effective use of my time (Board Only)**







- Trend continues to show the Board is functioning at an effective level, with a focus on increasing effective communication.



# Questions and Answers