

AGENDA 2019 – 2020 BOARD OF GOVERNORS

Thursday, April 9, 2020 – 10:00 am to 12:00 pm (EDT)
Conference Call

1. Opening of the Meeting (Start Time 10:00 am)

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| <p>1.1. <u>Call to Order</u>
Rich Laudenat</p> <p>1.2. <u>Adoption of the Agenda</u></p> <p>1.3. <u>President's Remarks</u> (5 minutes)
Rich Laudenat</p> <p>1.4. <u>Executive Director/CEO's Remarks</u> (10 minutes)
Tom Costabile</p> <p>1.5. <u>Consent Items for Action</u>
 <u>Identification of items to be removed from Consent Agenda</u>
 Consent Items for Action are items the Board is asked to take action on as a group.
 Governors are encouraged to contact ASME Headquarters with their questions prior to the meeting as it is not expected that consent items be removed from the agenda.</p> <p style="margin-left: 20px;">1.5.1. Approval of Minutes from January 22, 2020 Meeting</p> <p style="margin-left: 20px;">1.5.2. Form 990</p> <p style="margin-left: 20px;">1.5.3. Changes to the Arthur L. Williston Medal</p> <p style="margin-left: 20px;">1.5.4. Energy Policy Guiding Principles – ASME General Position Statement</p> <p style="margin-left: 20px;">1.5.5. By-Law Amendment – Nominating Committee – First Reading</p> <p style="margin-left: 20px;">1.5.6. By-Law Amendments – Establishment of an Executive Committee – First Reading</p> <p style="margin-left: 20px;">1.5.7. Proposed Appointments</p> | <p>ACTION</p> <p>DISCUSSION</p> <p>DISCUSSION</p> <p>ACTION</p> <p>Consent Items for Action are items the Board is asked to take action on as a group.
 Governors are encouraged to contact ASME Headquarters with their questions prior to the meeting as it is not expected that consent items be removed from the agenda.</p> <p style="margin-left: 20px;">INFORMATION</p> <p style="margin-left: 20px;">ACTION</p> <p style="margin-left: 20px;">ACTION</p> |
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2. Open Session Agenda Items

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| <p>2.1. <u>FY20 ED/CEO Q3 Goals and Objectives Update</u> (5 minutes)
Tom Costabile</p> <p>2.2. <u>Board Vote on Recommendations for Committee on Finance</u> (15 minutes)
Rich Laudenat/Betty Bowersox</p> <p>2.3. <u>Sector Management Committee</u> (15 minutes)
Rich Laudenat/Sam Korellis</p> | <p>INFORMATION</p> <p>ACTION</p> <p>ACTION</p> |
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|------|---|-------------|
| 2.4. | <u>Update on FY21 Planning Process</u> (10 minutes)
Tom Costabile/Bill Garofalo/Jeff Patterson | INFORMATION |
| 2.5. | <u>Board Selection of ASME President</u> (15 minutes)
Rich Laudenat | DISCUSSION |
| 2.6. | <u>Technical Events and Conferences Structure</u> (15 minutes)
Rich Laudenat | ACTION |

3. New Business**4. Open Session Information Items**

- 4.1. Dates of Future Meetings

DATE	DAY	TIME	LOCATION
June 14, 2020	Sunday	8:30 AM – 4:30 PM	TBD
June 17, 2020*	Wednesday	10:00 AM – 3:00 PM	TBD
July 27, 2020*	Monday	12:00 PM – 5:00 PM	TBD
July 28, 2020*	Tuesday	8:30 AM – 3:00 PM	TBD
July 29, 2020*	Wednesday	8:30 AM – 12:00 PM	TBD

*2020-2021 Board of Governors

5. Adjournment**List of Appendices**

- 1.5.2 Form 990
- 1.5.3 Changes to the Arthur L. Williston Medal
- 1.5.4 Energy Policy Guiding Principles – ASME General Position Statement
- 1.5.5 By-Law Amendment – Nominating Committee – First Reading
- 1.5.6 By-Law Amendments – Establishment of an Executive Committee – First Reading
- 1.5.7 Proposed Appointments
- 2.2 Board Vote on Recommendations for Committee on Finance
- 2.3 Sector Management Committee
- 2.5 Board Selection of ASME President
- 2.6 Technical Events and Conferences Structure



**Board of Governors Meeting
Agenda Item
Cover Memo**

Date Submitted:	March 11, 2020
BOG Meeting Date:	April 9, 2020
To:	Board of Governors
From:	William Garofalo, Chief Financial Officer
Presented by:	William Garofalo
Agenda Title:	Form 990

Agenda Item Executive Summary:

Form 990 for the fiscal year ended June 30, 2019 for informational purposes only.

Proposed motion for BOG Action:

None

Attachment(s):

Form 990 for the fiscal year ended June 30, 2019

Form 990

The Form 990 file exceeds the maximum download allowed, so it has been excluded from this document.

It is available upon request. If you would like a copy, please contact Susie Cabanas at cabanass@asme.org.

Form 990 is an annual information return required to be filed with the IRS by most organizations exempt from income tax. Parts I through XII of the form must be completed by all filing organizations and require reporting on the organization's exempt and other activities, finances, governance, compliance with certain federal tax filings and requirements, and **compensation** paid to certain persons.



Board of Governors Meeting

Agenda Item Cover Memo

DATE SUBMITTED	12 March 2020
BOG MEETING DATE	9 April 2020
TO	ASME Board of Governors
FROM	General Awards Committee
PRESENTED BY	Nicole Kaufman Dyess & Jared Oehring
AGENDA TITLE	Changes to the Arthur L. Williston Medal

EXECUTIVE SUMMARY

For the first time since 1954, ASME did not award a Williston Medal in 2019. Applications for this award have dwindled drastically since the 1990s, and in recent years, we've struggled to get quality submissions for this award despite efforts to improve its visibility.

The Arthur L. Williston Medal aims to recognize a student or recent graduate for "fostering a spirit of civic service." As the Williston's intent continues to align with ASME's mission and core values, the General Awards Committee formed an ad-hoc task force to revisit all aspects of the Williston Medal. The task force included volunteers from across the Society and considered a multitude of options, including sunsetting the award. Ultimately, the task force voted to amend the rules of award (attached) to make it a student civic leadership award.

Because the Williston rules of award were established in the charter of the permanently restricted endowment, endorsing the task force's proposal requires action by the Board of Governors.

PROPOSED MOTION

A motion to adopt the amended rules of award for the Arthur L. Williston Medal, including a determination that

- (1) A changed situation prevents the Arthur L. Williston Medal from achieving its stated purpose following the rules established in the original endowment;
- (2) The changed situation is enduring and unlikely to resolve on its own, and therefore the only way to continue fulfilling the purpose of the Arthur L. Williston Medal is to alter the rules established in the original endowment; and
- (3) The proposed amended rules of award for the Arthur L. Williston Medal meet the spirit and intent of the original endowment.

ATTACHMENT(S)

- Background memorandum from General Awards Committee
- Original charter
- Most recent Williston Rules of Award
- Proposed amended rules of award for the Arthur L. Williston Medal



Changes to the Arthur L. Williston Medal

TO ASME President Richard Laudenat, Executive Director Thomas Costabile, and the ASME Board of Governors

FROM Nicole Kaufman Dyess, Chair, and Jared Oehring, Vice Chair, General Awards Committee

DATE 16 March 2020

BACKGROUND

For the first time since 1954, ASME did not award a Williston Medal in 2019. Applications for this award have dwindled drastically since the 1990s, and in recent years, we've struggled to get quality submissions for this award despite efforts to improve its visibility.

The Arthur L. Williston Medal aims to recognize a student or recent graduate for "fostering a spirit of civic service." As this continues to be a noble purpose that aligns with ASME's mission and core values, the General Awards Committee formed an ad-hoc task force to revisit all aspects of the Williston Medal. The task force included volunteers from across the Society and considered a multitude of options, including sunsetting the award, discussed further in this memorandum. Ultimately, the task force voted to amend the rules of award (attached).

Because the Williston rules of award were established in the charter of the permanently restricted endowment, endorsing the task force's recommendation requires the Board of Governors to determine that:

- (1) A changed situation prevents the Arthur L. Williston Medal from achieving its stated purpose following the rules established in the original endowment;
- (2) The changed situation is enduring and unlikely to resolve on its own, and therefore the only way to continue fulfilling the purpose of the Arthur L. Williston Medal is to alter the rules established in the original endowment; and
- (3) The proposed amended rules of award for the Arthur L. Williston Medal meet the spirit and intent of the original endowment.

The remainder of this memorandum summarizes the intent and constraints in the Williston's chartering documents, documents the evidence demonstrating the "changed situation" and why it is unlikely to resolve itself, describes the methodology undertaken by this ad-hoc task force, and demonstrates how the proposed amended rules of award meet the spirit and intent of the original Williston endowment.

AWARD INTENT

As shown in the attached endowment charter, the purpose of the Arthur L. Williston Medal is to "foster a spirit of civic service." In particular, the award seeks to recognize students and recent graduates (less than two years post-baccalaureate) who best fulfills the criteria.

CONSTRAINTS & CHALLENGES

The Arthur L. Williston Medal, as originally chartered, has several constraints that challenge the ability of the Society to effectively achieve the endowment's original intent in the 21st century. Some of the constraints simply do not keep pace with the way we do business in the 21st century, such as requiring that applications be delivered to ASME in duplicate, bound hardcopy.

Other endowment constraints limit participation. For example, the original endowment specifies that the Medal shall be granted to a "young man" who best meets the award criteria; and, limiting eligibility to junior and senior class undergraduate students (plus graduates less than two years post-baccalaureate), as opposed to all mechanical engineering undergraduates.

While ASME previously amended the Williston Rules of Award to broaden eligibility to all mechanical engineering undergraduates — including women — and to allow electronic submissions, applications for this award have declined drastically over the past 20 years, from 30+ to 2 or 3 (see figure below). Quality of submissions is also in decline; in 2019, the General Awards Committee decided that the caliber of submissions did not warrant award of the Medal. While data from before 1992 is not available, all indicators say that participation was robust until the mid-1990s. Therefore, as shown in the graph below, the decline in participation is a changed situation from the time of the original endowment.

Williston participation by year



In an attempt to improve participation, the General Awards Committee made several efforts since 2016, including working with the SECD, GEC (now MDE), & PAO to send targeted messages about the Williston Contest to ME Department Heads, Student Section Advisors, and Student & Early Career Members; utilizing social media to solicit potential essay topics; asking students to vote for the year's topic; and working with ASME media to promote the contest in a wide selection of ASME newsletters. However, these efforts did not improve participation levels nor the quality of submissions. Since efforts to improve participation did not yield results, the decline in participation can be considered enduring and unlikely to resolve on its own; therefore, the only way for ASME to continue fulfilling the purpose of the Arthur L. Williston endowment is to alter the rules established in the original charter.

Additionally, by 2018, the Williston fund, though never large, had dwindled to the point where it was not possible to make an award. Generously, the Old Guard gave \$20,000 to bring the Williston Medal to the point where it could award a first-place prize; however, the future financial sustainability of the Medal needed to be considered.

TASK FORCE

At its May 2019 meeting, the General Awards Committee voted to create an ad hoc task force to consider the relevance of the Arthur L. Williston Medal and Contest. The task force, chaired by GAC Vice Chair Jared Oehring, included representation from across the Society: Lynden Davis (Old Guard), Monica Moman-Sanders (Old Guard), Aaron Adams (PAO), Robert Hauck (PAO), Charbel Bou Mosleh (MDE), Sandy Karam (SECD), Abdulrahman Samy (SECD), Leila Persaud (ASME Staff), and Nicole Kaufman Dyess (GAC). The task force also consulted with John Delli Venneri, ASME General Counsel, who sought additional advice from John Sare to ensure compliance with NY State Law regarding permanent endowments; and with Kathleen Lobb and Stephanie Viola at the ASME Foundation to review the award's fundraising potential in order to ensure the future financial viability of the Williston Medal.

The task force reviewed participation data and previous topics to see if certain topics were more popular. The task force also considered the constraints of the original charter, then reimagined what the Williston Medal could be while keeping the endowment's original intent of "fostering a spirit of civic service." The Old Guard Committee submitted a proposal to reinvent the Williston as an early career civic leadership award; the task force considered four additional options: a community service matching grant program, a civic leadership award, or changing the media of the existing contest, or sunsetting the award.

After conducting a survey at IMECE, where 43 people provided input on these options, and after consulting with Legal Counsel and the Foundation, the task force voted to reinvent the Williston Medal as a civic leadership award for students and recent graduates (less than two years post-baccalaureate). The Foundation advised that the reimagined Williston Medal aligns well with the current capital campaign. The task force drafted and adopted the attached proposed rules of award, changing the Williston from a student essay contest to a student civic leadership award. On 6 March 2020, the General Awards Committee approved the attached proposal; and on 9 March 2020, the Committee on Honors also ratified the attached proposed rules of award.

The proposed rules of award meet the letter and spirit of the original charter: First, the contest recognizes students and recent graduates (less than two years post-baccalaureate), the same audience as the original award—though broadened to grant the award to both men and women. Second, the award seeks to recognize engineering students and recent graduates who "stimulate, foster or develop increased interest in, sense of responsibility for, or urge [others to] participate in social-service, civic, or public-spirited activities for the benefit of society"—criteria directly from the original endowment charter. Third, the proposed application process will require a written submission explaining why the applicant meets the criteria, fulfilling the written statement requirement of the original charter.

RECOMMENDATION

That the Board of Governors move to adopt the amended rules of award for the Arthur L. Williston Medal, including a determination that

- (1) A changed situation prevents the Arthur L. Williston Medal from achieving its stated purpose following the rules established in the original endowment;
- (2) The changed situation is enduring and unlikely to resolve on its own, and therefore the only way to continue fulfilling the purpose of the Arthur L. Williston Medal is to alter the rules established in the original endowment; and
- (3) The proposed amended rules of award for the Arthur L. Williston Medal meet the spirit and intent of the original endowment.

ARTHUR L. WILLISTON MEDAL

ORIGINAL CHARTER

ARTHUR L. WILLISTON
986 High Street
Dedham, Mass.

I, Arthur L. Williston, of Dedham, Massachusetts, hereby give the sum of a number of thousands of Dollars (or the equivalent value in securities) to The American Society of Mechanical Engineers, in trust, however, the principal to be maintained intact and only the interest thereof spent, to be used for the following said purposes:

That the said Society shall grant at regular intervals, as far as practical, a:

MEDAL AND AWARD

to be known as the Arthur L. Williston Medal for "Fostering Civic Service" which shall be given to successfully competing student or Junior Engineer in accord with the conditions set forth in the attached memorandum called the:

"Arthur L. Williston Medal"

"Exhibit of Gift"

(Signed) Arthur L. Williston

October 20th, 1954

Oct 1954 Rec'd Securities \$6412.50
Jan 1955 " " 5537.50
(market value) $\frac{6412.50 + 5537.50}{2} = 11,950.00$

ARTHUR L. WILLISTON MEDAL

"EXHIBIT OF GIIFT"

The Arthur L. Williston Medal and Award, shall consist of a Medal, a Certificate and a Sum of Money. It shall be granted to the undergraduate student in the Junior or Senior class in a course of Mechanical Engineering, or to a Junior Engineer who has had professional experience and who has received a Baccalaureate Degree within two years prior to the date of the Award; and it shall be granted to the young man who best fulfills the Conditions prescribed by The American Society of Mechanical Engineers. This Award is to be given periodically for the purpose of:

"Fostering A Spirit of Civic Service"

within the Curricula of the usual four-year College, School or University Courses of Study.

CONDITIONS OF THE AWARD

The Award shall be granted to the Student or Junior Engineer who presents the best Brief or Thesis, as judged by a duly authorized Committee of the Society, setting forth ideas or suggestions, supported by appropriate argument, regarding changes of curricula, or additions thereto, variations of procedures or activities within the prescribed courses of study or in the extracurricula area of his school or college; that will tend to stimulate, foster or develop increased interest in, sense of responsibility for, or urge to participate in social-service, civic or public spirited activities for the benefit of society or American Civilization.

This Brief or Thesis shall be typewritten and bound, and presented in duplicate. It shall be delivered to the Society on or before a date to be specified.

The Society shall be authorized, if in its judgment changed situations so require, to alter the above conditions in such a manner as will not materially change the spirit or intent thereof.

ARTHUR L. WILLISTON MEDAL

CURRENT RULES OF AWARD

FORM OF AWARD

First place consists of a bronze medal, certificate, \$1000 honorarium, plus travel expenses in accordance with the Committee on Honors policy to attend the award presentation; second place consists of \$500 and a certificate; third place consists of \$250 and a certificate.

ACHIEVEMENT RECOGNIZED

Best acceptable papers submitted in annual competition on a subject chosen to challenge the engineering abilities of engineering students in conformance with the annual contest guidelines.

LIMITATIONS

A contestant must be an ASME Student Member or Member who received the baccalaureate degree not more than two years before the deadline date for submission of papers. A sponsor, who is an ASME member and who took an active role in encouraging or guiding participation of the author in the contest, is required. No individual may sponsor more than two authors annually.

NOMINATING COMMITTEE

The contest is administered by the General Awards Committee of the Society.

REVIEW PROCESS

The GAC considers all entries, and if it feels the award is warranted, makes a recommendation to the ASME Committee on Honors for approval.

NOMINATION DEADLINE

March 1 to General Awards Committee

FUND

The award is financed by the Arthur L. Williston Fund.

Temp. Restricted:	\$	10,199
Perm. Restricted:	\$	18,648
Total net assets as of 2/28/2019:	\$	28,847

GAC: 5/1/78; 11/17/81; 5/5/82; 5/5/87; 4/26/88; 12/3/91; 11/30/93; 11/19/96; 11/16/99; 11/14/02; 4/16/09; 4/24/14

COH: 5/2/78; 11/18/81; 5/6/82; 5/6/87; 4/27/88; 12/3/91; 11/30/93; 11/19/96; 11/16/99; 11/19/05; 4/17/09; 4/25/14

ARTHUR L. WILLISTON MEDAL

PROPOSED AMENDED RULES OF AWARD

FORM OF AWARD

First place consists of a bronze medal, certificate, and \$1,000.00 [USD] honorarium. Second place receives a certificate and \$500 [USD] honorarium. Third place receives a certificate and \$250 [USD] honorarium.

ACHIEVEMENT RECOGNIZED

The Arthur L. Williston Medal recognizes an engineering student or recent graduate for “fostering civic service.”

CRITERIA

The recipient(s) shall demonstrate considerable leadership in activities that “stimulate, foster or develop increased interest in, sense of responsibility for, or urge [others to] participate in social-service, civic, or public-spirited activities for the benefit of society.” Examples of such leadership may include but are not limited to serving in elected office or on active operating/advisory boards, leading initiatives on campus and/or in local community-based organizations, and participating in advocacy on important issues, particularly those relevant to engineering. Efforts that demonstrably increase civic engagement shall receive special consideration.

LIMITATIONS

Recent graduates must have received their baccalaureate degree no more than two years prior to the date of submission of their application. Application must include a statement describing the candidate’s role and describing how her/his leadership fosters a spirit of civic service.

REVIEW PROCESS

The Williston Special Awards Committee (WSAC) shall review all entries annually, and if warranted and sufficient fund balance exist, make recommendation(s) to the General Awards Committee to award the Medal. The WSAC shall consist of two representatives from the Old Guard Committee, one representative from the Students & Early Career Sector, one representative from the Public Affairs & Outreach Sector, and one representative from the Member Development & Engagement Sector, and its membership approved by the Committee on Honors.

NOMINATION DEADLINES

15 February	Applications due to the Williston Special Awards Committee
15 March	Recommendation due to General Awards Committee

FUNDING

The award is funded by the Arthur L. Williston Fund:

Unrestricted net assets	\$	-
Temporarily restricted net assets		11,136
Permanently restricted net assets		18,648
Total net assets	\$	29,784 [As of 30 June 2019]

GAC: 6 March 2020;

COH: 9 March 2020;



**Board of Governors Meeting
Agenda Item
Cover Memo**

Date Submitted: March 20, 2020

BOG Meeting Date: April 9, 2020

To: Board of Governors

From: Connie Lausten, Chair, ASME Committee on Government Relations

Presented by: Paul Fakes, Senior Manager, Government Relations

Agenda Title: Energy Policy Guiding Principles – ASME General Position Statement

Agenda Item Executive Summary: This statement from the ASME Committee on Government Relations' Energy Public Policy Task Force provides an overview of recent trends in the U.S. energy sector and recommends that the five following principles be applied to the development of U.S. energy policies:

1. The goal of United States energy policy should be to provide energy that is affordable, reliable, and sustainable.
2. All decisions regarding energy generation and usage in the United States should be based on viewing energy as an integrated system.
3. Energy efficiency, and not just the generation and movement of energy, is part of a sound national energy policy.
4. Aggressive federal, state, and private investments on energy technology should be complemented by policies that allow these technologies to reach the market, and support the development of a broad energy economy.
5. Changing technology will require substantial and sustained investment in an educated work force.

Proposed motion for BOG Action: Endorsement as a General Position Paper of ASME.

Attachment(s): ASME Energy Policy Guiding Principles Position Paper



1828 L Street, N.W. Tel 202.785.3756
Suite 510 Fax 202.429.9417
Washington, D.C. 20036 www.asme.org

DRAFT – NOT FOR PUBLICATION

Energy Policy Guiding Principles

Energy technology is currently undergoing the most rapid technological change since the replacement of gas streetlights with electric lighting and the horse with the internal combustion engine. The widespread adoption of renewable electrical generation, the deployment of electric vehicles, increased production of natural gas, and the development of grid-level energy storage are some of the most visible aspects of this ~~technological~~ transformation. Because of the impact of these technology changes on national priorities, it is in the national interest that third-party organizations provide accurate and unbiased technical advice to policy makers.

Energy policy decisions should incorporate science and ~~technological engineering~~ analysis that show the impacts of policy decisions over the entire energy system using approaches that incorporate life cycle analysis from procurement and construction through operation and decommissioning, as well as ~~any~~ longer-term impacts. -These analyses should be coupled with sound economic analysis that translates these impacts into economic and societal costs and benefits.

The ASME recommends that the five following principles be applied to the development of U.S. energy policy:

1. *The goal of United States energy policy should be to provide energy that is affordable, reliable, and sustainable.*
2. *All decisions regarding energy generation and usage in the United States should be based on viewing energy as an integrated system.*
3. *Energy efficiency, and not just the generation and movement of energy, is part of a sound national energy policy.*
4. *Aggressive federal, state, and private investments ~~in~~ energy technology should be complemented by policies that allow these technologies to reach the market, and support the development of a broad energy economy.*
5. *Changing technology will require substantial and sustained investment in an educated work force.*

Guiding Principles in Focus

- 1. The goal of United States energy policy should be to provide energy that is affordable, reliable, and sustainable.**

Affordable energy impacts United States economic competitiveness and standards of living. In many manufactured products, energy is a major cost. These costs are highest in the seven industries classified as “energy-intensive”: food, pulp and paper, basic chemicals, refining, iron and steel, and nonferrous metals (such as aluminum, and nonmetallic minerals such as cement). In steelmaking, energy accounts for 27 percent of total costs. In cement-making, among the most energy-intensive industries¹, energy accounts for as much as 40 percent of the total costs¹. Because these industries often provide the raw materials for other economic sectors ranging from auto-making to household goods, these costs cascade throughout the economy. Energy costs are seen even in economic sectors not traditionally associated with energy usage, such as agriculture. Numbers from the USDA show that the combined costs of fuel, electricity, and energy-intensive fertilizers accounted for more than half the cost of a bushel of wheat².

The average American household spent \$1,340 on electricity, \$644 on natural gas, propane, and other heating fuels and \$1,977 on gasoline in 2017, accounting for 6.5 percent of household income. In many households, persons living in older less efficient housing and living on fixed incomes have energy expenses that are a much larger share of household budgets.

Reliable energy traditionally has been defined in terms of the ability of electric generation to match demand and to remain resilient to meet challenges such as mechanical failure. Americans expect on-demand electricity for their homes and businesses. This definition of reliability also includes timely distribution of non-electric energy sources, such as gasoline and natural gas, to their point of use. Reliability has changed significantly in the past decade. Mechanical reliability must be complimented by resiliency: the ability of an energy system to both avoid, and rapidly recover from, events that may compromise power delivery.

The aftermath of Hurricane Maria and recent earthquakes on Puerto Rico illustrates the challenges of resiliency. Hurricane Maria was the first Category Five hurricane to strike Puerto Rico in recorded history, and the island’s aging energy infrastructure was heavily damaged by the storm. The physical factors of rugged terrain and lack of connection to the electrical grid of the continental United States complicated restoration of power, with more than 10 months passing until full power was restored. Future energy systems should be designed and maintained to better withstand natural disasters, to minimize the consequences of local failures, and to recover more quickly.

¹As noted later in this document, the ASME believes that energy costs should be assessed as part of a life-cycle analysis. This means that, for both industrial and agricultural energy use, the ASME uses estimates that take into account capital costs, and not just operating costs. Therefore, the values quoted for energy use as a percentage of total costs in these contexts is lower than values quoted that look only at operating costs.

² USDA 2013 Agricultural Resource Management Survey (ARMS)

Natural disasters are not the only point of vulnerability in energy systems. As an example, the 2015 cyber-attack on Ukraine's electrical system demonstrated the vulnerability of electrical generation to attack by both state and non-state actors. These vulnerabilities are not confined to the electrical generation and distribution systems: they are present in all energy systems. Given the complexity of these systems, it is clear that they will never be invulnerable: instead they must be able to recover rapidly.

Sustainable energy is the most challenging of these three energy goals to define. The impact of the energy system on human health and the environment should not be minimized. Energy production is most strongly associated with air pollution from combusting gases, which include: particulates, organic compounds, carbon monoxide, carbon dioxide, nitrogen oxides, and sulfur oxides. Other forms of air pollution, including methane, may be released during fossil fuel production. Energy production also contributes to water pollution, and creates solid waste such as coal ash.

Air pollution is not the only sustainability issue tied to the energy system: concerns about the environmental impact of rare earth metals used in energy storage and the effects of all forms of electric generation on the environment. Energy is also a major user of water, an increasingly scarce resource. Energy production and transmission have an impact on wildlife, including loss of birds to wind turbines, pipelines interfering with migration routes, and the environmental damage associated with petroleum spills during production or transmission. In this context, minimizing the impact of any energy technology over its life cycle, and not just the time and point of use, becomes a major engineering challenge.

2. All decisions regarding energy generation and usage in the United States should be based on viewing energy as an integrated system.

Changes made in one component of the energy generation network to meet the goals of affordable, reliable and sustainable energy will also have other impacts. For instance, widespread adoption of electric vehicles will change the requirements of electric generation and distribution. The scale of increased electric generation has the potential to be massive: current road vehicles use the equivalent of about 20 percent of current US electric generation. This shift will only be economical, reliable, and sustainable if the expanded electrical production and transmission system is also economical, reliable, and sustainable.

Vehicle owners may wish to utilize electricity generated using intermittent renewables such as solar or wind. Changes will be needed to the electric grid to manage new patterns of electricity usage. Production of electric vehicles will also require the production of energy storage materials, which will impact the manufacturing economy as well as increasing demand for heavy earth metals. Policy makers must take a holistic view of the energy system to ensure that decisions made to encourage new technologies do not have undesirable impacts elsewhere in the energy system.

The technological challenges of integrating electrical vehicles into the US electrical-grid are only one example of the technological challenges in energy integration. In addition, as state and local governments set more ambitious renewable energy portfolio requirements, and as companies commit to using more renewable energy, the United States electrical grid must be upgraded and

modernized to support such transitions. Because of both technological development and financial incentives such as tax credits, wind and solar dominate renewable electricity generation. Managing the intermittency of these resources as they become a larger percentage of US electrical production will require both grid-scale storage, and smarter grid management. Grid-scale energy storage solutions will be different than storage solutions currently used in electrical vehicles, but will still create a need for new materials, whose mining and manufacturing will have environmental impacts. Active management of the electrical grid creates new vulnerabilities, including cyber-security challenges.

Policy makers can work to ensure that technological change results in increased affordability and sustainability while maintaining reliability in several ways. These include ensuring the availability of a broader range of renewable energy technologies by leveling tax incentives across renewable energy technologies to allow the use of the best technological solutions. They can provide appropriate incentives for storage and effective grid management, while encouraging effective cybersecurity. Finally, policies should use life-cycle analysis to ensure the goal of increased sustainability is truly met.

3. *Energy efficiency, and not just the generation and movement of energy, is part of a sound national energy policy.*

Because there is no “zero impact” energy, energy efficiency is not only more sustainable, but more economically competitive. As shown earlier in this discussion, energy costs are a significant portion of both United States industrial and agricultural costs, and a significant drain on household finances. In many cases, opportunities for improved energy efficiency are lost either due to a lack of information, or a failure to properly consider life-cycle energy costs. Metrics for measuring energy efficiency are crucial to enabling efficient use of energy.

The potential savings can be shown by looking at a single example of energy consumption: US data center energy usage, which accounts for 73 billion kilowatt-hours (kW-hrs.) of annual energy use. A major challenge in data centers is the amount of power that goes into ventilation and cooling of the electronics. For conventional data centers, for every 1000 Watts of power that go to the electronics and generates economic value, 600 Watts are spent on cooling. For highly efficient “hyper-scale” centers which are already being deployed, this amount can be reduced to around 100 Watts. Research systems designed to maximize cooling efficiency through technologies such as liquid cooling and waste heat recovery have demonstrated that this amount can be reduced to 20 Watts. This shows that systems engineering, and consideration of life-cycle costs can reduce the amount of wasted energy in data centers by a factor of six in existing commercial systems, and as much as a factor of 30 in next-generation systems. This is captured by a metric for data center energy efficiency; the Power Usage Efficiency, or PUE, which allows direct comparison of data center efficiency.

While not every technology offers the opportunities for improved energy efficiency seen in data centers, the basic principles of clear metrics for energy efficiency as well as consideration of life cycle energy impacts can be applied across the entire range of economic sectors that use energy.

This includes home energy efficiency, the efficiency of both private and commercial vehicles, and the development of industrial processes.

4. *Aggressive federal, state, and private investments on energy technology should be complemented by policies that allow these technologies to reach the market, and support the development of a broad energy economy.*

Transformative new energy systems are needed to reach the goal of reliable, affordable, and sustainable energy to support the needs of our growing global population. This goal requires energy research and development programs that progress from the fundamental research led by agencies such as the National Science Foundation (NSF) and the Department of Energy's Office of Science through applied research led by the Department of Energy's technology-focused programs. This should include not only investments in new generation technologies, but enabling technologies such as smart grids and energy storage. There is a role for rapid, high-risk energy technology investments that may not fit neatly into any of conventional categories, such as the work supported by the Advanced Research Projects Agency-Energy (ARPA-E.)

While research investments in renewable energy technologies have been the most publicized successes of energy programs, technology investments in fossil and nuclear power generation have also led to improvements in efficiency, reliability, and sustainability. For instance, new high-temperature materials, advanced combustion processes, and new pollutant removal technologies have improved the efficiency of coal and natural gas plants while reducing their environmental impact. Continued research investments in renewables, fossil energy, and nuclear energy will lead to additional gains in these areas.

Energy planning for the future requires a portfolio approach to investments that enhances all energy technologies and is sometimes referred to as an “all of the above” strategy. This approach mitigates the risk of any one technology not achieving desired goals. It also recognizes that energy choices are influenced by geography, including the solar resource in the Southwest, the hydropower resources throughout the U.S., wind resources of the Great Plains, and concentrations of coal, oil, and natural gas. Movement of fuel and electricity to areas of greater demand requires added infrastructure, leading to increased cost and environmental impact.

Innovative ideas for new or improved energy technologies can be readily studied at laboratory and bench scales to evaluate their promise for further development into a deployable energy system. Equipment and financial support needs are small at these scales. Validation experiments need not address how the proposed technology would integrate with the overall system. However, practice has shown that a prototype at a scale representative of a commercial system must be built and operated successfully to attract financial support to further advance the technology toward deployment in the marketplace.

Development costs and technical risks are large for demonstrating advanced energy technologies. Private investors will not usually fully fund such endeavors. Aggressive federal, state, and private investments, complemented by policies that reduce investment and deployment risks, are needed

to enable new technologies to successfully pass through the demonstration phases to reach the market. In consideration of the above challenges, technology demonstration and commercialization policies should reflect the following attributes:

- a) The US Department of Energy should dedicate programmatic funding support to sustain a continually updated portfolio of candidate scale-up and demonstration projects that will lead to the commercialization of new energy technologies.
- b) The federal government should co-invest with private partners, using flexible cost share guidelines where appropriate, to support the large-scale demonstration of promising technologies for commercialization in domestic and international markets.
- c) A range of financial incentives, including Federal loan programs, investment tax credits, production tax credits, commercial lending practices / repayment guarantees, and similar programs should be enacted to promote new investments in viable technologies.

However, the long-term consequences of tax credits as technologies mature should also be considered. As noted earlier, current tax credits are not evenly distributed among mature renewable energy technologies, which may affect arriving at the most effective grid-scale solutions.

Due to the costs associated with operating large-scale demonstration projects, the Department of Energy should maintain effective management procedures to cancel unsuccessful projects on a timely basis, develop funding cycles that promote continual updating of the demonstration program portfolio, and work collaboratively with other federal agencies to share the costs of energy demonstration projects.

5. *Changing technology will require substantial and sustained investment in an educated work force.*

The rapid changes in energy technology require a workforce that is capable of designing, deploying, and maintaining increasingly complex technology and mastering new skills such as cybersecurity, robotics, and artificial intelligence (AI) while retaining the institutional knowledge needed to maintain and update systems that may be decades old. The potential loss of institutional knowledge goes beyond dealing with existing systems. As engineers with experience in designing power plants retire and leave the workforce without passing on their expertise, the ability to design safe and affordable plants may be lost. The loss of skills goes beyond the engineering work force: skilled trades needed in the energy industry such as machining and specialized welding are also at risk.

The United States has an aging workforce in the engineering and non-engineering energy areas with the median age of 55 years old. Strategies for combatting the potential loss of knowledge are being developed throughout the country in order to try to capture and disseminate this information before it is lost. Successful college students can earn Associate, Bachelors and Master's degrees in the energy field. There are also apprentice and operator certification programs to train the incoming classes of power plant operators. New energy technologies require a more educated work force at

all levels, from the trades to advanced engineering degrees.

The rapid rate of technology change makes energy an appealing area to many students. As Brian Malone, a student recently quoted in an NSF report, stated:

“Distributed energy resources; smart grid, electric vehicle charging, data analytics, cybersecurity, molten salt reactors, power electronics and all of the challenges in power make it impossible to be bored or complacent in this field. The best part is I am only scratching the surface and there is a lifetime of work ahead.”

The U.S. needs to channel this enthusiasm and move forward with the education and technology needed incorporating workforce development policies and action across the board. In addition to changes in educational policy, changes in trade, taxation, regulation, and fiscal and monetary policy should be considered.

The federal, state, and local governments, businesses, and educational institutions should work together to develop power universities, vocational schools, community colleges, apprenticeship and operator training programs to ensure that the incoming workforce is trained and ready to take on future challenges in power, AI, robotics, and all forms of renewable energy sources. This will lead to the internationally competitive work force needed to achieve the goals of affordable, reliable, and sustainable energy, as well as an internationally competitive US economy.



Board of Governors Meeting Agenda Item Cover Memo

Date Submitted: March 10, 2020

BOG Meeting Date: April 9, 2020

To: Board of Governors

From: Committee on Organization and Rules

Presented by: Fred Stong

Agenda Title: By-Law Amendment – Nominating Committee

Agenda Item Executive Summary:

Given the Board of Governors' approval of the reduction of the size of the Nominating Committee to ten voting members and creation of the new Member Development and Engagement Sector, changes need to be made to the composition of the Nominating Committee.

It is proposed that the number of alternates be one per sector.

The 2020 Nominating Committee, which will meet at the 2020 Annual Meeting is already in place.

This By-Law will take effect with the 2021 Nominating Committee.

Proposed motion for BOG Action: To approve for first reading changes to By-Law B-4.2.

Attachment(s): By-Law changes.

B4.2 NOMINATING COMMITTEE

B4.2.1 The Nominating Committee is charged with the responsibility of nominating members of experience, high standing, and active participation in the work of the Society to those offices specified in Article C4.1.8 of the Constitution. These nominees may be selected from proposals by various units or by individual members in the Society or from the Nominating Committee's own deliberations as it sees fit.

B4.2.2.1 Election to the Nominating Committee takes place at Business Meetings of the Society. At the second Business Meeting of the fiscal year, the President shall present the names of those recommended pursuant to By-Law B4.2.2.3, as applicable, for election to the Nominating Committee. In the event any vacancies occur following that meeting, the President may present the names of those recommended pursuant to By-Law B4.2.2.3, as applicable, for any Nominating Committee vacancies at the first Business Meeting of the new fiscal year. The voting members of the Nominating Committee shall be elected for two years and alternates for one year.

Elected voting members and alternates shall begin their terms at the close of the Business Meeting at which they are elected.

Terms of voting members and alternates will normally end at the close of the Nominating Committee Selection Meeting. However, if the work of a particular Nominating Committee is not finished by that time, terms of that committee will continue until the selection process for which that committee is responsible has been completed.

B4.2.2.2 The Nominating Committee shall consist of voting members and alternates selected by each sector. Each sector shall have two voting members and one alternate. The TEC Sector shall have five voting members and five alternates selected by the TEC Sector Council. One voting member and one alternate for the TEC Sector shall be nominated by the Group Engagement Committee for as long as such Committee exists and reports to the Sector Management Committee. The S&C Sector shall have four voting members and three alternates selected by the Council on Standards and Certification. The PAO Sector shall have four voting members and three alternates selected by the PAO Sector Council. The SECD Sector shall have four voting members and three alternates selected by the SECD Sector Council. Approximately one half of the voting members will have terms that expire annually. Nominations for open positions for voting members and alternates shall be made as provided in By-Law B4.2.2.3 and shall be voted upon at the Business Meetings as provided in By-Law B4.2.2.1.

Voting members and alternates shall be of the Member or Fellow grade and not currently serving in any elective office of the Society.

- B4.2.2.3 Each sector will develop its own procedures for generating proposals for the members and alternates of the Nominating Committee for which that sector has a responsibility, and those procedures shall be specified in the sector operation guide.
- B4.2.2.4 The Nominating Committee shall be assisted by a non-voting group of Advisors consisting of up to three consenting and available past Presidents who have been out of office for one year or more. These Advisors, invited by the Nominating Committee, will attend all meetings of the Nominating Committee and participate in all its discussions. At the option of the committee, they may also be present during the casting of votes for the slate of nominees, although they shall remain impartial and not communicate to the Nominating Committee their opinions regarding any Proposed Nominee. The functions of this group shall be:
- a. to acquaint the Nominating Committee of the short and long range Society plans;
 - b. to make available their experience in, and their knowledge of the requirements for Society offices;
- B4.2.3.1 If a voting member is unable to serve, then an alternate will be identified by the sector from its pool of alternates. In the event that no alternates are available in a specific sector, an alternate may be selected from another sector pool of alternates in accordance with the Nominating Committee Manual, MM-10.
- B4.2.3.2 A person who has been in office as voting member of the Nominating Committee for a term or portion of a term which includes more than one Nominating Committee Selection Meeting is eligible to be proposed for a later term as voting member or alternate only if the later term begins one year or more after the ending of the term in which the person served as a voting member.
- B4.2.4 No voting member or alternate shall be considered for nomination to any elective office (President and Governors) of the Society during a term of office on the Nominating Committee, whether or not it is served.
- B4.2.5 The names of those elected to serve on the Nominating Committee shall be published by the Executive Director prior to the end of each year, accompanied by a request for proposals for officers of the Society to be sent to the Nominating Committee. Any changes to the composition of the Nominating Committee shall be published as soon as possible.

- B4.2.6 A vacancy in the Nominating Committee of the Society shall be filled as determined in accordance with B4.2.3.1 and B4.2.2.1.
- B4.2.7 Each year, not later than December 1, the Nominating Committee shall submit any proposed changes to Manual MM-10 to the Committee on Organization and Rules for review and recommendation.
- B4.2.8 A special nominating committee may be organized by one percent of the corporate membership of the Society in good standing certifying to the Executive Director in writing their joint intention to organize such a committee.
- B4.2.9 Within two weeks following the close of the second Business Meeting of the fiscal year, the Nominating Committee shall deliver to the Executive Director in writing the names of its nominees for the elective offices to be filled at the next election, together with the written consents of the nominees.
- B4.2.10 The names of nominees for the various offices proposed by the Nominating Committee and any other special nominating committee shall be published by the Executive Director immediately after the receipt of the report of the Nominating Committee or the special nominating committee.
- B4.2.11 Names of any nominees presented by any special nominating committee must be in the hands of the Executive Director by the first Tuesday in August of each year, and must be accompanied by the written consent of each nominee.
- B4.2.12 Any member of the Society or any organized unit of the Society may propose and is encouraged to propose, directly to the Nominating Committee, nominees for President or the Board of Governors.



**Board of Governors Meeting
Agenda Item
Cover Memo**

Date Submitted: March 10, 2020 (Updated April 1, 2020)

BOG Meeting Date: April 9, 2020

To: Board of Governors

From: Committee on Organization and Rules

Presented by: Fred Stong

Agenda Title: By-Law Amendments – Establishment of an Executive Committee

Agenda Item Executive Summary:

A need has arisen for a more agile governance structure at the highest level of ASME to handle action items between meetings of the Board of Governors. The attached By-Law changes call for the establishment of an Executive Committee of the Board of Governors. The voting members of the Executive Committee are all members of the Board of Governors, so, like the Audit Committee and Committee on Executive Director Evaluation and Staff Compensation, the Executive Committee is considered a Committee of the Board of Governors and, as a result, may take actions to bind the Board.

It should be noted that the President-Nominee is not a voting member of the Executive Committee. Only after the Business Meeting at the Congress would this individual, who at that time would be the President-Elect, be a voting member of the Executive Committee.

It is proposed that By-Law B4.4 be amended to allow the Executive Committee to assume responsibility for the acceptance of grants, gifts and bequests.

Proposed motion for BOG Action: To approve for first reading changes to By-Law B-4.4 and B5.2.

Attachment(s): By-Law changes.

B4.4 FUNDS

- B4.4.1 All funds received shall be directed to the office of the Chief Financial Officer for proper recording and deposit in authorized bank accounts.
- B4.4.2 All amounts due from members and others shall be collected by the office of the Chief Financial Officer.
- B4.4.3 Funds may be solicited from sources outside of the Society for the conduct of research.
- B4.4.4 No grant, gift or bequest to the Society shall be accepted until it and any restrictions thereon have been approved by or under the authority of the Board of Governors. Upon receipt, such grants, gifts and bequests shall be invested and used for the Society's purposes and in accordance with any restrictions thereon mandated by the donor and approved by or under the authority of the Board of Governors. The Executive Committee of the Board of Governors may accept unrestricted grants, gifts or bequests with a value of less than \$2,500,000.
- B4.4.5 The Committee on Finance and Investment, under the direction of the Board of Governors, shall be responsible for the management of the securities of the Society.
- B4.4.6 All payments for expenditures shall be made by the office of the Chief Financial Officer upon proper authorization, in accordance with the budget adopted by the Board of Governors.
- B4.4.7 The Chief Financial Officer shall regularly report to the Committee on Finance and Investment the total expenditures incurred against each appropriation in the adopted budget. The Committee on Finance and Investment will report the financial position of the Society to the Board of Governors.
- B4.4.8 Any contract or other obligation to pay money in the work of the Society shall be valid only when signed by the Executive Director, the Chief Financial Officer, or the Assistant Treasurer.
- B4.4.9 The accounts of the Society shall be audited annually by a certified public accountant appointed by the Board of Governors and ratified by the corporate membership.
- B4.4.10 No part of net earnings of the organization shall inure to the benefit of any member, trustee, director, officer of the organization, or any private individual (except that reasonable compensation may be paid for the services rendered to or for the organization), and no member, trustee, officer of the organization or any private individual shall be entitled to share in the distribution of any of the organization's assets on dissolution of the organization.

- B4.4.11 In the event of dissolution, all of the remaining assets and property of the organization shall, after payment of necessary expenses thereof, be distributed to such organizations as shall qualify under section 501(c) 3 of the Internal Revenue Code of 1986.

B5.2 SECTORS AND COMMITTEES REPORTING TO THE BOARD OF GOVERNORS

B5.2.1 The sectors reporting to the Board of Governors shall be the Member Development and Engagement Sector, Standards and Certification Sector, Technical Events and Content Sector, the Public Affairs and Outreach Sector and the Student and Early Career Development Sector.

Each sector shall be led by a council. The council of each sector shall consist of such voting members as specified in the sector By-Laws. Individuals, as may be required or designated pursuant to any statute, regulation, or court order or consent decree may also be voting or non-voting members of a sector council. A member of the senior staff of the sector, if any, may be a voting member of the sector council. The sector council may designate both volunteer and staff non-voting members.

The duties and responsibilities of the sectors shall be as designated from time to time by the Board of Governors. Each sector shall maintain its own operation guide as prescribed by Society Policy. Each sector shall be chaired by a senior vice president who shall serve a term of three years. Additional service as the same senior vice president may occur after an interruption of one or more years or following a partial term. Senior vice presidents shall attend meetings of the Board of Governors without vote.

B5.2.2 The following Standing Committees shall report to the Board of Governors and shall be appointed by the Board as determined in the By-Laws: Executive Committee, Committee on Organization and Rules, Committee on Finance and Investment, Audit Committee, Committee on Executive Director Evaluation and Staff Compensation, Committee on Honors, Committee of Past Presidents, Sector Management Committee, Philanthropy Committee, Diversity and Inclusion Strategy Committee, Industry Advisory Board, and Volunteer Orientation and Leadership Training Academy. Each Standing Committee shall maintain its own operation guide as prescribed by Society Policy. If a Standing Committee includes individuals who are not Governors, it is not a committee of the Board and may not bind the Board; provided, however, that the Committee on Finance and Investment may bind the Board with respect to investment matters without regard to whether it includes individuals who are not Governors.

B5.2.3.1 The Executive Committee shall act on behalf of the Board of Governors between Board of Governors meetings, its authority limited to those matters specifically provided for in these By-Laws and specifically delegated to it, consistent with applicable law, by the Board of Governors from time to time. All such actions shall be ratified by the Board of Governors at its next scheduled meeting. The Executive Committee shall have responsibility to accept grants, gifts or bequests in accordance with By-Law B4.4.4. The Executive Committee shall meet from time to time as deemed necessary by the Committee.

B5.2.3.2 The President will serve as Chair of the Executive Committee. The Immediate Past President, President-Elect and one third-year Governor, who is selected by closed written ballot by the Board of Governors at the Board's first meeting of the fiscal year,

shall constitute the remaining voting members of the Executive Committee. If a round of closed written balloting shall fail to produce a majority vote of those present and constituting a quorum in support of a third-year Governor, the lowest vote-getter shall be removed from the ballot for one or more subsequent rounds of closed written balloting until a single candidate shall receive a majority vote of those present and constituting a quorum. If a round of closed written balloting shall produce a tie, the tie shall be broken by a drawing of straws by the tied candidates, and the candidate who draws the shorter or shortest straw shall be removed from the ballot for one or more subsequent rounds of closed written balloting until a single candidate shall receive a majority vote of those present and constituting a quorum. The President-Nominee (until such time as he or she becomes President-Elect) and the Executive Director are non-voting members of the Executive Committee.

- B5.2.43.1 The Committee on Organization and Rules, under the direction of the Board of Governors, shall have responsibility for ensuring that the Society is organized and supplied with qualified leadership to serve the current and anticipated future needs of the membership, and shall reexamine regularly the Constitution, By-Laws and Policies of the Society.
- B5.2.43.2 The Committee on Organization and Rules shall select its own Chair and Vice Chair. Its membership shall be determined by the Board of Governors. The President-Elect may select a Governor to serve as Liaison to the Committee during their Presidential term.
- B5.2.54.1 The Committee on Finance and Investment, under the direction of the Board of Governors, shall have responsibility for supervising the financial and investment affairs of the Society and supporting the Board and its committees by conducting an annual review of the Society's budgets.
- B5.2.54.2 The Committee on Finance shall select its own Chair.

The Treasurer shall be an ex officio member of the Committee with vote and shall serve as Vice Chair. The Chief Financial Officer and the Assistant Treasurer shall be ex officio members of the Committee without vote. Other members shall be determined by the Board of Governors. The President-Elect may select a Governor to serve as Liaison to the Committee during their Presidential term.

- B5.2.65.1 The Committee on Executive Director Evaluation and Staff Compensation, under the direction of the Board of Governors, shall have responsibility for making recommendations to the Board regarding the Executive Director's performance planning and evaluation and for making recommendations to the Board regarding the Executive Director's compensation, including salary and bonus recommendations.

The Committee shall also have the responsibility to advise the Board of Governors on activities of the Society's staff regarding: staff compensation, including bonus programs; volunteer/staff collaboration survey; staff planning and organization; staff training and development; staff and retiree benefit programs, including pension plans. The committee will also be responsible for staff related Society Policies P-7.1, (Recognition of Staff Members - 5 Years or More of Service) and P-7.2, (Staff Employment Guidelines).

In addition, the Committee has oversight responsibilities for the Pension Plan Trustees and the Retirement Plan Committee.

| B5.2.65.2 The Committee on Executive Director Evaluation and Staff Compensation shall consist of the President, the President-Nominee/Elect, the Immediate Past President and three current Board members at-large (serving staggered terms on the Board). The President and Immediate Past President are ex officio members of the committee with vote. The President-Nominee/Elect is an ex officio member of the Committee without vote. The Immediate Past President shall be the Chair. The incoming first-year Governor shall be selected by the President-Elect and approved by the Board of Governors.

The term of each of the current Board members at-large expires when their Board term expires.

| B5.2.65.3 The Pension Plan Trustees, under the direction of the Committee on Executive Director Evaluation and Staff Compensation, shall have responsibility, as specified in the American Society of Mechanical Engineers Pension Plan, for the investment and ultimate distribution of the funds and may also act as Plan agent for the service of legal process.

The Pension Plan Trustees shall consist of up to seven members: the Treasurer of ASME; the Chief Financial Officer, and three to five at-large members recommended by the Committee on Executive Director Evaluation and Staff Compensation for appointment by the Board of Governors.

The terms of the at-large members shall be three years ending at the close of the second Society-Wide Meeting on a schedule established by the Committee on Executive Director Evaluation and Staff Compensation. Except as provided in this section, a Pension Plan Trustee who is a member-at-large may serve no more than two consecutive full terms. To be eligible for additional full terms, a member-at-large must be nominated by the Committee on Executive Director Evaluation and Staff Compensation upon a finding by the Committee that specifies exceptional circumstances warranting the additional terms, and a written statement of such findings must accompany the nomination when it is communicated to the Board of Governors by the Chair of the Committee. The nominee may then be appointed only upon the affirmative vote of two-thirds of the entire Board of Governors.

| B5.2.65.4 The Retirement Plan Committee, under the direction of the Committee on Executive Director Evaluation and Staff Compensation, shall have responsibility, as specified in the ASME Thrift Plan, the ASME Defined Contribution (DC) Plan, the ASME 457(b) Plan, and the ASME 401(k) Plan documents, including to act as Plan Administrator and Named Fiduciary for such plans and assume such responsibilities as developing investment policy statements, selecting and monitoring investment choices, benchmarking Plan administration expenses and investment plan administrators performance and selecting, appointing and retaining plan investment, governance and plan administration compliance advisors, as well as having the power to make ministerial and technically required plan amendments.

The Retirement Plan Committee shall consist of four members: two members of the Executive Management Team, one member of the Human Resources Department and one Volunteer member of the Pension Plan Trustees. The three staff members will be nominated by the Executive Director and appointed at the discretion of the EDESC. The pension plan trustee shall be recommended by the Pension Plan Trustees and may be appointed at the discretion of the EDESC.

The ASME Staff members of the Committee may be members with vote for as long as they hold the positions described in this By-Law B5.2.5.4. The Pension Plan Trustee member's term will be for as long as they are a member of the Pension Plan Trustees.

B5.2.76.1 The Committee on Honors, under the direction of the Board of Governors, shall have responsibility for recommending properly selected candidates for honors, medals, Honorary Members, and awards, and as required shall recommend recipients of joint awards, all subject to approval by the Board of Governors. However, the Board may delegate to the Committee on Honors the power to approve candidates for any honor, medal or award other than Honorary Member or ASME Medalist.

B5.2.76.2 The Committee on Honors shall select its own Chair and Vice Chair. Its membership shall be determined by the Board of Governors. The Chair of the General Awards Committee shall be an ex officio member with vote. The President-Elect may select a Governor to serve as Liaison to the Committee during their Presidential term.

B5.2.76.3 The General Awards Committee, under the direction of the Committee on Honors, shall seek candidates for all honors and awards except Honorary Members, the ASME Medal, and group-level awards, and shall screen nominations and make recommendations to the Committee on Honors.

The General Awards Committee shall consist of a Chair, a Vice Chair and a membership as determined by the Committee on Honors.

B5.2.67.4 Other Society award committees, including special award committees, shall in accordance with the policies and procedures administered by the Committee on Honors, seek nominees for honors in their several areas of interest, shall screen nominations, and make recommendations to the Committee on Honors.

B5.2.87.1 The Committee of Past Presidents, under the direction of the Board of Governors, shall have responsibility for electing Fellows, overseeing the ethical practice of engineering, and providing guidance on matters where its experience may be useful, upon request by the President, Board of Governors, and other units of the Society.

B5.2.87.2 The Committee of Past Presidents shall select its own Chair and Vice Chair. Its membership shall consist of all living Past Presidents, unless the Board of Governors or Ethics Committee makes a finding that results in the censure, expulsion, suspension or other disciplinary action of a Past President involving the following conduct:

(a) violation or attempted violation of the ASME Ethics or Conflicts of Interest Policy, knowingly assisting or inducing another to violate or attempt to violate the ASME Ethics or Conflicts of Interest Policy, or doing so through the acts of another;

(b) illegal conduct that adversely reflects on the Past President's honesty, trustworthiness or fitness to serve ASME in a position of trust;

(c) conduct involving breach of fiduciary duty, dishonesty, fraud, deceit or misrepresentation; or

(d) other conduct that is or reasonably could be harmful to the reputation and administration

of the Society.

Disciplinary action for conduct described in B5.2.7.2 (a) through (d) shall render a Past President ineligible for membership on the Committee of Past Presidents and shall result in the expulsion from the committee of any current member of the Committee of Past Presidents.

B5.2.98.1 The Audit Committee, under the direction of the Board of Governors, shall have responsibility for overseeing the accounting and financial reporting process of the Society and the audit of its financial statements and report its activities to the Board. The Committee will be responsible for overseeing the adoption and implementation of, and compliance with, the Society Policies on whistleblowers and conflicts of interest. The Committee will annually consider the performance and independence of the independent auditor and recommend retaining or renewing the retention of the independent auditor to the Board. The Committee will liaise with the independent auditor prior to the commencement of the audit and upon completion of the audit, review and discuss the audit results and any related management letter with the auditor, including:

- (a) any material risks and weaknesses in internal controls identified by the auditor;
- (b) any restrictions on the scope of the auditor's activities or access to requested information;
- (c) any significant disagreements between the auditor and management; and
- (d) the adequacy of the Corporation's accounting and financial reporting processes.

B5.2.98.2 The Audit Committee shall consist of three current Board members-at-large (serving staggered terms on the Board) who serve as voting members. The Committee membership is determined by the Board of Governors and consists solely of "independent" members of the Board as defined under Section 102(a) (21) of the New York Not-for-Profit Corporation Law. The Chair shall be the senior Governor and the Vice Chair shall be the second-most senior Governor.

The Treasurer shall be an ex officio member of the Committee without vote. The Chief Financial Officer and the Assistant Treasurer shall be ex officio members of the Committee without vote. The President-Elect makes the recommendation on the incoming first-year Board member-at-large. The term of the Board members-at-large expires when their Board term expires.

B5.2.109.1 The Sector Management Committee, under the direction of the Board of Governors, shall have responsibility for facilitating communication and collaboration among the Sectors. This includes coordination, integration, and facilitation for implementation of the enterprise strategy with the development, maintenance and execution of the Integrated Operating Plan,

B5.2.109.2 The Sector Management Committee shall consist of the Senior Vice Presidents, their respective staff counterparts, and the staff member with overall responsibility for operations. The Co-Chairs of the Committee shall be the Senior Vice President in their third year and the staff member with overall responsibility for operations. The President-Nominee/elect will serve as an advisor to the Committee.

B5.2.110.1 The Philanthropy Committee, under the direction of the Board of Governors, shall have

responsibility for advising the Board of Governors and assisting the Society in connection with fundraising activities and philanthropic programs carried out using the Society's name or other resources.

- | B5.2.110.2 The Philanthropy Committee shall select its own chair and vice chair. The ASME Executive Director, the ASME Managing Director of Philanthropy and the ASME Managing Director of Programs shall be ex officio members of the Committee without vote. Other members shall be determined by the Board of Governors. The President-Elect may select a Governor to serve as Liaison to the Committee during their Presidential term.
- | B5.2.124.1 The Diversity and Inclusion Strategy Committee, under the direction of the Board of Governors, shall have responsibility for providing insight and advice into promoting diversity and inclusion within ASME and mechanical engineering.
- | B5.2.124.2 The Diversity and Inclusion Strategy Committee shall select its own Chair and Vice Chair. Its membership shall be determined by the Board of Governors. The President-Elect may select a Governor to serve as Liaison to the Committee during their Presidential term.
- | B5.2.132.1 The Industry Advisory Board, under the direction of the Board of Governors, shall have responsibility for providing a voice for industry within ASME through the communication of the needs of engineers that are engaged in industry.
- | B5.2.132.2 The Industry Advisory Board shall select its own Chair and Vice Chair. Its membership shall be determined annually by the Board of Governors. The President-Elect may select a Governor to serve as Liaison to the Board during their Presidential term.
- | B5.2.143.1 The Volunteer Orientation and Leadership Training Academy, under the direction of the Board of Governors, shall have responsibility for developing ASME's volunteer leadership. VOLT's programmatic offerings extend to volunteers serving throughout the Society at all levels.
- | B5.2.143.2 The Volunteer Orientation and Leadership Training Academy shall select its own Chair and Vice Chair. Its membership shall be determined by the Board of Governors. The President-Elect may select a Governor to serve as Liaison to the Academy during their Presidential term.

**ASME Board of Governors
Agenda Item
Cover Memo**

Date Submitted: March 10, 2020

BOG Meeting Date: April 9, 2020

To: Board of Governors

From: Committee on Organization and Rules

Presented by: Fred Stong

Agenda Title: Proposed Appointments

Agenda Item Executive Summary:

Proposed appointments reviewed by the COR on March 17, 2020.

Proposed motion for BOG Action:

To approve the attached appointments.

Attachments: Document attached.

MARCH 2020

**PROPOSED APPOINTMENTS
TO ASME UNIT**

Internal Unit	Nominee	Appointment Position/Title	Appointment Term/Category	Appointment Type	History
Committee on Honors	Terry Shoup	Member-at-Large	July 2020 – June 2023	Re-appointment	Past President, Honorary Member
Committee on Honors	Ward Winer	Member-at-Large	July 2020 – June 2023	Re-appointment	Honorary Member
Committee on Organization and Rules	Nael Barakat	Member-at-Large	July 2020 – June 2023	Initial	Technology and Society Division Chair, District Leader
Committee on Organization and Rules	Leila Aboharb	Member-at-Large	July 2020 – June 2023	Initial	Student and Early Career Development Council
Member Development and Engagement Council	Richard Cowan	Member-at-Large	April 2020 – June 2020	Initial	Engineering Sciences Segment Chair, Group Engagement Committee Member
Member Development and Engagement Council	Nicole Dyess	Member-at-Large	April 2020 – June 2020	Initial	Nominating Committee, Committee on Honors



**Board of Governors Meeting
Agenda Item
Cover Memo**

Date Submitted: March 16, 2020

BOG Meeting Date: April 9, 2020

To: Board of Governors

From: Tom Costabile

Presented by: Tom Costabile

Agenda Title: FY20 ED/CEO Q3 Goals and Objectives Update

Agenda Item Executive Summary:

To provide a brief update on the status of the 3rd quarter FY20 ED/CEO Goals and Objectives.

Proposed motion for BOG Action: Information Only

Attachment(s): None



**Board of Governors Meeting
Agenda Item
Cover Memo**

Date Submitted: March 25, 2020

BOG Meeting Date: April 9, 2020

To: Board of Governors

From: Richard Laudenat

Presented by: Richard Laudenat

Agenda Title: Board Vote on Recommendations for Committee on Finance

Agenda Item Executive Summary:

A need has arisen for a more focused management approach of ASME's Investment Portfolio Performance and Risk Tolerance along with a budget review process which is congruent with the budget preparation cycle and complementary to current ASME financial reporting processes.

The presentation package has been prepared to provide the Board with a perspective of enhancements to the process.

After discussion, a final Motion will be put forward for Board approval

Proposed motion for BOG Action:

This presentation is for a Board Vote

Attachment(s):

Presentation Package for Proposed Committee on Finance

Considerations for an enhanced Committee On Finance

Meeting ASME's Financial Obligations for the Future with a Standard of Excellence

Richard Laudenat

April 9, 2020



What to Expect from Presentation ...

- Description – An Overview of needed changes to ASME's Oversight of Finances and Investments
- Desired Outcome – Board Approval of a revised Committee on Finance
- Questions – After a short introduction a Board Discussion will follow prior to a Motion
- Duration – 15 minutes



Overarching Considerations for this Change ...

- All decisions regarding management of the Investment must be approved by the Board and not a Committee of the Board
- COFI should be rebranded as COF and additional members, preferably licensed financial professional should be added.
- The new Executive Committee should be involved with quarterly reviews of the investment portfolio.
- COF is an oversight committee reviewing work of the ASME staff and not charged with “preparation of the budget” as been assumed in the past
- All meetings should be virtual, with one face to face as part of a Board Meeting



Motion:

- Re-name the current Committee on Finance and Investment to Committee on Finance
- Direct the Chair, Committee on Finance to prepare revised operating guide incorporating the discussions and agreements from the April 9, 2020 Board of Governor Meeting
- Direct the Chair, Committee on Finance to put forward a new COF Membership Roster for ratification by the Board of Governors
- Consideration should be given to reducing the size of the current Committee along with evaluating if members who have been re-appointed for a second term should remain on the Committee at this time. The Committee on Finance will be comprised of members who have the requisite skill set to evaluate the investment portfolio of the ASME as well the requisite skill set to evaluate the ASME Budget and it is expected that new members will be proposed. The ASME CFO will assist in this evaluation.



**Board of Governors Meeting
Agenda Item
Cover Memo**

Date Submitted:	March 16, 2020
BOG Meeting Date:	April 9, 2020
To:	Board of Governors
From:	Senior Vice Presidents
Presented by:	Sam Korellis
Agenda Title:	Sector Management Committee

Agenda Item Executive Summary:

"A Path Forward to Advance Collaboration Led by the Senior Vice Presidents"

To ensure more real-time collaboration between ASME Sectors, the SMC will be sunset and guidelines will be established to facilitate and enhance the communications necessary to promote successful activities across the traditional sector boundaries. These guidelines and methods behind them will be drafted by the current set of SVPs and SVPs-elect with staff concurrence.

Proposed motion for BOG Action:

Sunset the SMC effective immediately

Attachment(s): PowerPoint Presentation

Sector Management Committee (SMC)

**A Path Forward to Advance Collaboration
Led by the Senior Vice Presidents**

- Presented by Sam Korellis, SVP S&C
- Board of Governors meeting
- April 9, 2020



What to Expect from Presentation

- Brief Description – Describe the path forward to advance cross sector collaboration without the SMC
- Desired Outcome – Motion: Sunset the Sector Management Committee (SMC) effective immediately.
- Questions – Please hold questions until after the short presentation
- Duration – 15 minutes with Q&A



The Path Forward: Life without the SMC

- **The SVPs have new roles to play**
 - Global business priorities are shifting creating opportunities for ASME to find new areas to serve
- **High level plan:**
- **Free up the SVPs, permitting them to focus on strategic issues and value added activities**
 - More collaboration on new standards, new programming activities, leadership development , student engagement, events, and policies

The Path Forward: To Advance ASME

- **New SVP mode of operation can occur through:**
 - empowerment of the next tiers of volunteer leaders
 - definition of sector daily and long term activities
 - permit new / more volunteers to increase their activities and roles
 - close staff engagement
- **SVPs to define these activities, permitting themselves time to develop and promote their visions**



The Path Forward: Near Term Actions

- **Details will be developed and will include**
 - Empowerment and engagement plans
 - SVP communication plans and paths
 - Staff roles
- **Each SVP will establish areas of common interest**
 - Relationships will be built on trust and mutual need(s)
- **SVPs will work in collaboration with each other**
 - Proposing new opportunities
 - Setting visions into actions

Todays Actions

- Discussion
- Q&A
- Recommended Motion: Sunset the Sector Management Committee (SMC) effective immediately.
- Thank you





**Board of Governors Meeting
Agenda Item
Cover Memo**

Date Submitted: March 16, 2020

BOG Meeting Date: April 9, 2020

To: Board of Governors

From: Tom Costabile, Bill Garofalo and Jeff Patterson

Presented by: Tom Costabile, Bill Garofalo and Jeff Patterson

Agenda Title: Update on FY21 Planning Process

Agenda Item Executive Summary:

To provide a brief overview of the FY21 Planning Process.

Proposed motion for BOG Action: Information only

Attachment(s): None



**Board of Governors Meeting
Agenda Item
Cover Memo**

Date Submitted: March 25, 2020

BOG Meeting Date: April 9, 2020

To: Board of Governors

From: Richard Laudenat

Presented by: Richard Laudenat

Agenda Title: Board Selection of ASME President

Agenda Item Executive Summary:

The Board has held discussions and provided comments on a revised Nomination Process for ASME President. This discussion will center on a proposal for a process for the Board to utilize to self-select the ASME President.

A Board Discussion will follow the presentation.

Proposed motion for BOG Action:

This is a discussion item only. The next step will be to prepare revisions to applicable Governance Documents for ratification.

Attachment(s):

Principles of Board Self Selection of ASME President

Key Bylaw Principles Regarding ASME Board of Governor Self Selection of President

Richard Laudenat

April 9, 2020



What to Expect from Presentation ...

- Description – An overview of the strawman for the BOG Self Selection of President
- Desired Outcome – Board discussion
- Questions – Please hold questions until after the presentation.
- Duration – 15 minutes

BOG Self Selection of President

NUMBER OF MEMBERS

Board would consist of: (a) 12 members at large (including the President if elected from the sitting elective members of the board), (b) the President (if elected from outside the board as provided below), and (c) the Executive Director, who sits in a non-voting ex officio capacity.

NUMBER OF BOARD POSITIONS

Nominating Committee would annually nominate sufficient candidates to fill three board positions (i.e., one-third). (In the event a third term member is elected to a second term, the Nominating Committee will select a fourth candidate. Only one (1) board member is permitted to serve a second term as described below).

BOG Self Selection of President - continued

BOARD TERM

3 years staggered, so that the term of one-third of the board would end every year. Possible eligibility to be elected to a second consecutive three-year term (subject to limitation described below).

PRESIDENTIAL SELECTION

Board selects the President for a one-year term from the sitting elective members of the board at first meeting of new board. The outgoing President continues to serve as president (and therefore presides at this meeting) until a new president is selected (see B 4.1.11). Only those elective governors who have completed a full three-year period on the board, immediately preceding the presidential term, would be eligible to be selected as President in this process.

BOG Self Selection of President - continued

PRESIDENTIAL TERM

President would be permitted to serve a second one-year term in that office but must stand for reelection by the board. If not selected for a second term as President, the President would serve out the balance, if any, of his or her three-year term on the board.

NO PRESIDENTIAL CANDIDATE WITHIN BOARD

If none of the sitting board members choose to serve as President, the board would be empowered to select a president from consenting past presidents, consenting past board members or consenting senior vice-presidents.

President so selected would serve a one-year term on the board solely by virtue of holding the office of President. This would mean that the voting membership of the board would grow from 12 to 13 in those years when a President is selected from outside the board.

BOG Self Selection of President - continued

SELECTION OF BOARD MEMBERS FOR SECOND TERMS

A second -year board member would be required to notify the President at the conclusion of his or her second year (one year prior to the next election cycle for the nominating committee) if he or she wishes to serve a second consecutive term on the board, and would, upon vote of the board, be given a second consecutive term. Only one (1) Board Member will be eligible to serve a second term. If more than one Board Member wishes to serve a second term the Board will select the Board Member by a 2/3 vote. Any board member who is granted a second consecutive term would be required to agree to serve as President if elected to the board again and if selected as President by the board.



BOG Self Selection of President - continued

EXECUTIVE COMMITTEE

The President, Past President and President Elect, the Executive Director (without vote) and one first-term Governor for a one (1) year term. A board member serving a second consecutive term may serve on Executive Committee



**Board of Governors Meeting
Agenda Item
Cover Memo**

Date Submitted: March 23, 2020

BOG Meeting Date: April 9, 2020

To: Board of Governors

From: Richard Laudenat

Presented by: Richard Laudenat

Agenda Title: Technical Events and Conferences Structure

Agenda Item Executive Summary:

The 2020 Technical Community Engagement Project Observations and Recommendations have been presented at the Group Leadership Development Conference. Comments from Segment and Division Volunteer Leadership have been received and evaluated. A Motion is being presented for Board Vote.

Proposed motion for BOG Action:

Please refer to Presentation Material for the Motion

Attachment(s):

Presentation on Technical Events and Conferences Recommendations

2020 Technical Community Engagement Project Observations and Recommendations

Report by Michael Johnson



This project was the result of concerns expressed by the President and Executive Director Team (PEDT) over:

- Organizational churn and disruption over the two proposed alternatives to restructure the Technical and Engineering Communities
- Concepts outlined by the Presidential Task Force not being fully considered as outlined in the approved motion (April 10, 2019) by the Board of Governors
- Survey data both qualitative and quantitative becoming available after the April 10th BOG meeting not being fully factored into the proposals
- A structural design that did not enhance collaboration, agility, or engagement
- Entrenched thinking and lack of innovation in the proposed alternatives

The proposed alternatives were attempting to address:

- A fragmented Division structure without leadership or functioning governance as a result of the 2014 reorganization
- ASME's slow, inconsistent, and sporadic response to rapidly changing technologies
- ASME's desire to be flexible, agile and responsive to the changing technological landscape
- Enhancing the collaboration, networking, and innovation within the Divisions
- Accelerating progress related to the integration of the emerging and strategic technologies



My observations on the proposed TEC structure alternatives were:

- The proposals did not position ASME for long-term sustainable growth or response to rapidly changing technologies
- Wholesale re-organization would be highly disruptive and unproductive
- Any proposed structural revisions should be data driven, and respectful of volunteer feedback
- Neither proposal enhanced organic collaboration and leveraged the full value of the intellectual content of the Divisions
- The proposals were based on legacy models and were bureaucratic in nature



The feedback from Division interviews indicated that:

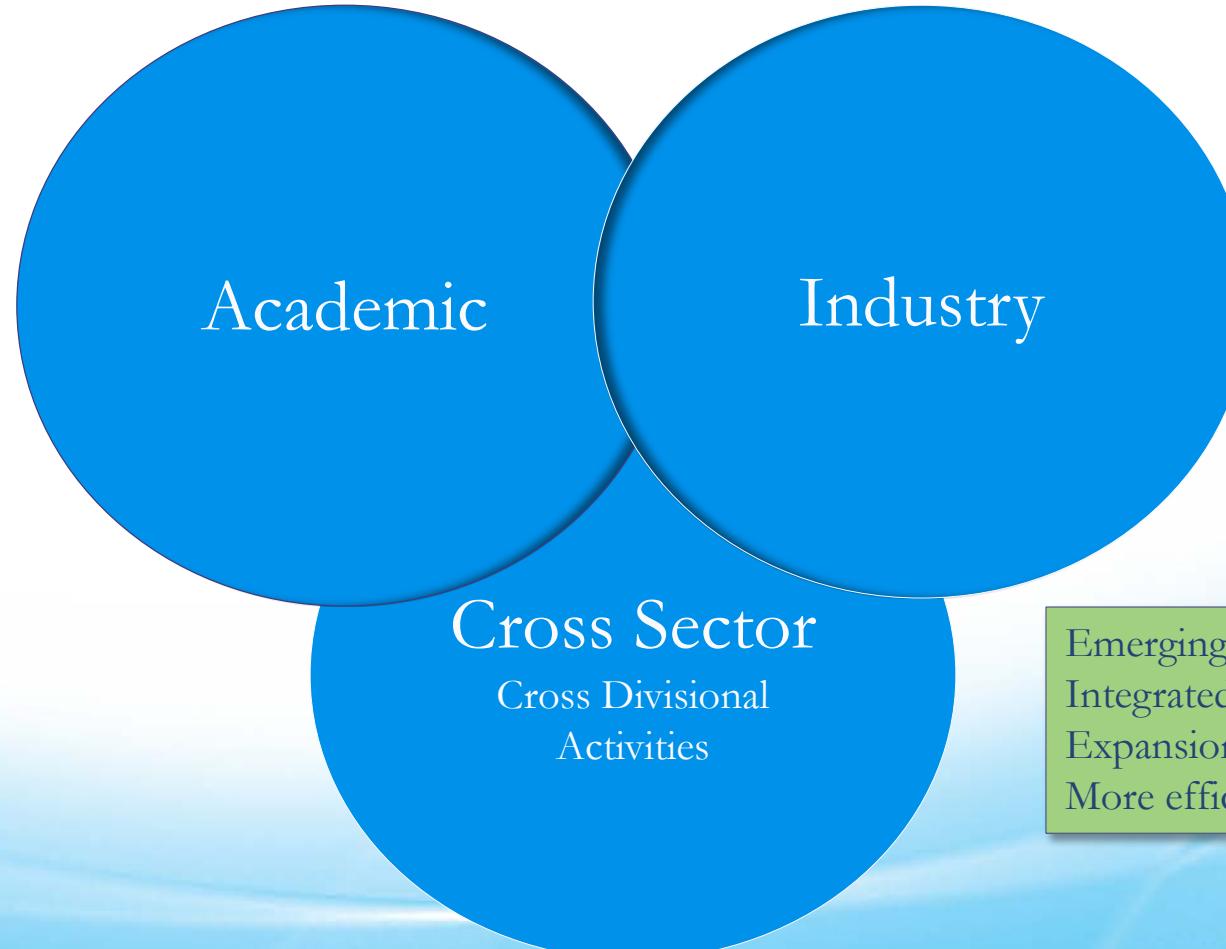
- Wholesale reorganization would be disruptive and unproductive
- Selective Divisions have no desire to have any relationship with ASME or other Divisions
- Better communication tools or forums are needed to foster collaboration both vertically and horizontally
- Increased participation in the selection of senior leadership (SVP) was important
- Distribution of Technology Development funds needed to be more equitable
- That there was limited understanding of the role or value of the TEC Council
- A better balance of academic and industrial conferences is needed
- Additional oversight of the funding and activities of Honors and Awards is necessary

My recommendations are designed to accomplish:

- Establishing a governance structure that fosters communication between the Divisions and the Board of Governors
- A Division structure that is grouped and focused on the constituents that are served by their conferences and events
- A governance structure for Divisions with leadership assisting in the strategic direction with minimal bureaucracy and enhanced decision making
- A flat structure which facilitates enhanced collaboration that is organic, but with coordination and guidance
- A structure that is flexible, responsive to emerging opportunities, and facilitates vertical and horizontal integration

The Divisions serve overlapping constituents, but conferences are primarily directed at these Centers of Influence

- Education
- Students
- Publishing
- Community



Emerging Opportunities
Integrated Conference Planning
Expansion of existing conferences and events
More efficient utilization of resources

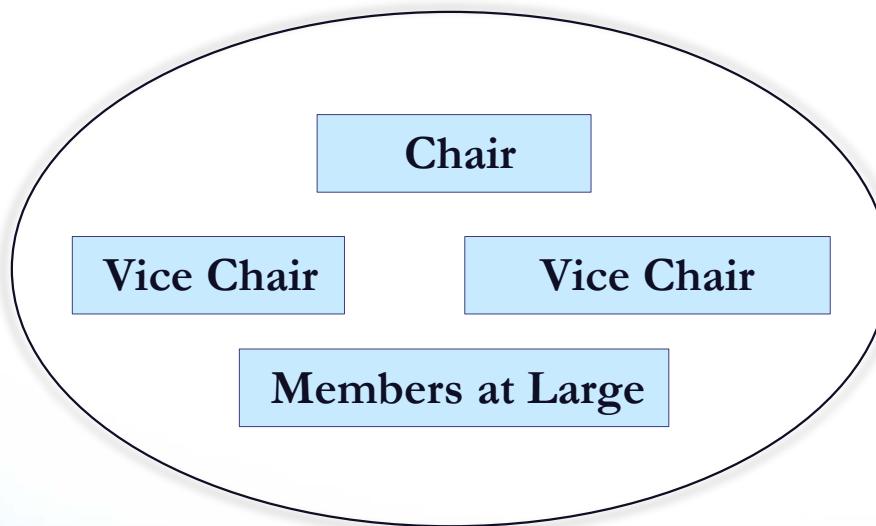
Recommendations:

- Restructure the TEC Sector Council to include newly created positions of Vice Chair and selected Member at Large
- Charge the Vice Chair with management oversight of several designated technology groups with specific duties
- Expand the number of Division categories from five to ten based on common centers of excellence, technologies, and constituents served
- Provide the Vice Chair with the flexibility to implement a leadership structure within their designated technology groups that drives accountability and enhances collaboration
- Reclassify the Division groupings as Technology Groups and eliminate the current Segment structure

Role and Responsibility of the Vice Chair

- Focuses on execution of activities within the group, assuring the group is actively engaged with the divisions, facilitates the creation of new conferences and events, fosters collaboration and sharing best practices
- Specifically the Vice Chair would be charged with the following:
 - Determining the Group Leadership structure
 - Fostering collaboration on technical topics
 - Facilitating TEC Development Fund proposals and ensuring that the process is fair, equitable and transparent.
 - Reviewing all conference budgets (new and existing)
 - Working through Divisional issues and elevating them to the TEC Sector Council for resolution when needed.
 - Communicating the overall ASME strategy to the Divisions, and communicating Divisional strategies to TEC Sector Council

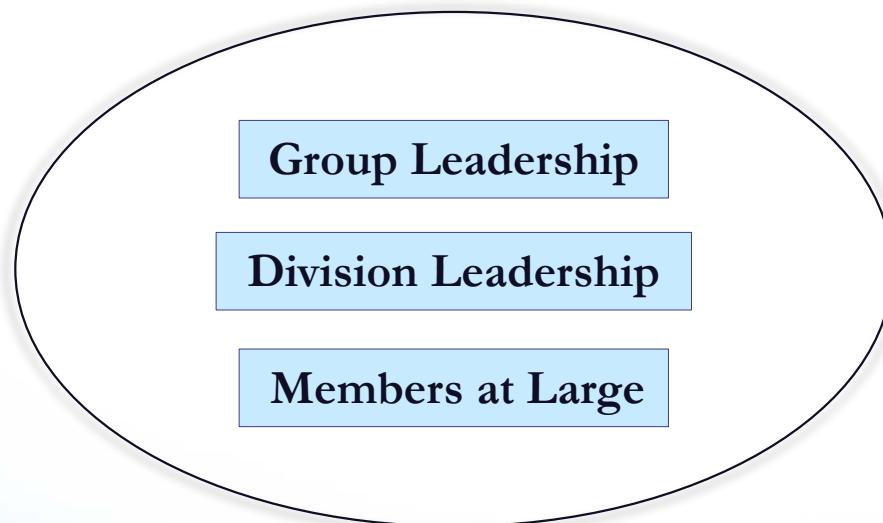
Proposed Governance Structure for TEC Sector



TEC Sector Council

- Provide overall leadership and direction to assure the Technology Groups are creating value for the organization and the membership
- Provide strategic direction for the Sector in line with the ASME strategy as approved by the Board of Governors
- Maintain the TEC Development Fund
- Monitor the functioning of the Technology Groups
- Ensuring connection between the TEC Sector and the other sectors within ASME for collaboration and potential programmatic activity
- Establishing “task groups“ or standing committees as needed
- Work to develop new content and programmatic activities

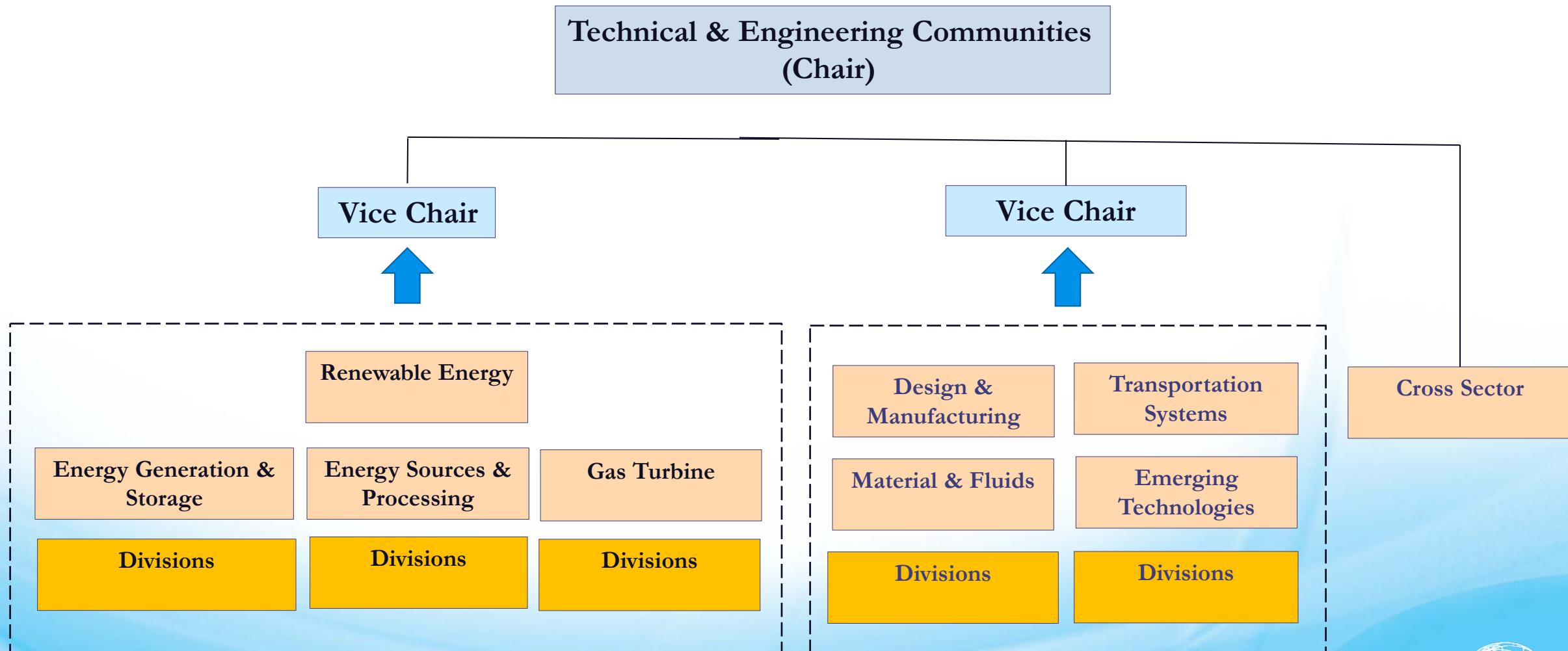
Proposed Governance Structure for TEC Sector



Technology Groups

- Provide overall leadership and direction to assure the Divisions are creating value for the organization and the membership
- Ensure the Division are sharing best practices and leveraging the intellectual content of the group
- Explore opportunities to collaborate and create new opportunities
- Coordinate the integration of emerging technologies into conferences and event planning

Proposed Governance Structure for TEC Sector



Proposed Technical Groups

Energy Generation and Storage

Materials & Energy Recovery
Power
Internal Combustion Engines
Energy Environment and Waste RC
Nuclear Engineering

Renewable Energy

Solar Energy
Wind (New)

Energy Sources & Processing

Petroleum
Ocean Offshore and Arctic
Pressure Vessels and Piping
Pipeline Systems

Gas Turbine

International Gas Turbine Institute

Design and Manufacturing

Manufacturing Engineering
Computers & Information in Engineering
Design Engineering
Dynamic Systems & Control
Electronic, Photonics and Packaging
Information Storage Systems
Process Industries
Microelectromechanical Systems
Noise Control Systems

Material & Fluids

Applied Mechanics
Advanced Energy Systems
Fluids Engineering
Fluids Engineering Systems & Technology
Heat Transfer
Materials
Tribology
NDE Evaluation, Diagnostics & Processing
Water & Steam RC

Transportation Systems

Aerospace
Rail Transportation
Autonomous Vehicles (New)

Emerging Technologies

Robotics and Artificial Intelligence (New)
Bioengineering

Cross Sector

Management
Technology & Society
Safety Engineering & Risk Analysis
Environmental Engineering

Inactive (Sunset)

Materials Handling
Plant Engineering & Maintenance
Nanotechnology Institute

This proposed structure offers:

- A direct reporting relationship for the Divisions
- Leadership opportunities for Divisions and Members at Large
- Address a partially effective Segment leadership structure
- New Divisions focused on emerging technologies
- Charters the Technology Sector Council with specific responsibilities
- The Divisions aligned into groups working on common technologies which should enhance collaboration
- A structure that is flexible and responsive to emerging technologies, opportunities, and facilitates vertical and horizontal integration

Motion:

- Approve a new TEC structure based on the 2020 Technical Community Engagement Project Observations and Recommendations
- Approve a new TEC Council consisting of the Senior Vice President, TEC; two Vice Chairs (to be selected), and a member-at-large (to be named by the SVP)
- Sunset the TEC Segment Organization Structure and the TEC Council effective at a time recommended by the Senior Vice President, TEC when the new structure is operational
- All current TEC Council Members and Segment Leadership Teams to continue their current roles and remain available for leadership positions as requested by Senior Vice President, TEC and new Council. Additional Appointments required within Technology Groups will be made by the Senior Vice President, TEC, with BOG concurrence.
- Approve the formation of a TEC Transition Team consisting of SVP TEC, ASME Chief Operating Officer, ASME Chief Strategy Officer and a Member at Large of the ASME Board Of Governors. Monthly reporting to the PEDT/Executive Committee.

Motion ... continued:

- The new TEC Council shall consider the creation of new Technology Groups such as Renewable Energy, Energy Generation and Storage, Energy Sources and Processing, Gas Turbine, Design and Manufacturing, Transportation Systems, Materials and Fluids, Emerging Technologies and Cross Sector, and report a final TEC proposed technical group structure to the BOG for a meeting in September 2020.
- Each Vice Chair will design the process for moving within their respective technology groups
- will self-select their affiliation with one or more of the Technology Groups. Self-selection schedule will be determined by the Senior Vice President TEC
- By-law and policy changes will be prepared by TEC with the assistance of staff, and after review by COR will be presented to the Board for vote at the June meeting
- Performance Metrics for Divisions consistent with the 2020 Technical Community Engagement Project Observations and Recommendations will be submitted to the Board of Governors for approval at its November meeting
- Senior Vice President, TEC will provide a written summary of TEC accomplishments and challenges at each BOG meeting until further notice