EXCELLENCE IN Management Recognition PROGRAM

Attributes & Keys to Management Success

The following provides descriptions of the *Ten Attributes of Effectively Managed Water Sector Utilities* (*Attributes*) and the *Keys to Management Success*. Annotations have been made to reflect specific requirements of NACWA's Awards Committee to support their evaluation of Excellence in Management (EIM) Recognition Program applications. Please note that performance measures or metrics (i.e. quantifiable measures that are used to track and assess the status of a specific process, activity, or initiative) **are required** for some *Attributes* and must have targets or target goals. Applicants are encouraged to include a table to display progress and trends over a 3-year period.

Additional information can be found in the *Effective Utility Management Primer*. The *Primer* provides guidance applicants can use based on the *Attributes* and includes a list of potential performance measures organized around each of the *Attributes*. Applicants do not have to choose performance measures from the list contained in the *Primer;* however, the list serves as a useful reference point for consideration. The *Primer* also describes a process that applicants can use to assess their existing programs and how well they address the ten *Attributes*.

The Ten Attributes of Effectively Managed Water Sector Utilities

- Product Quality *(Required for EIM applicants — all applications must include this Attribute)*

  Produces "fit for purpose" water and other recovered resources (e.g., energy, nutrients, biosolids) that meet or exceed full compliance with regulatory and reliability requirements and consistent with customer, public health, ecological, and economic needs. Products include treated drinking water, treated wastewater effluent, recycled water, stormwater discharge, and recovered resources.

  NACWA Awards Committee Note:
  To receive Excellence in Management (EIM) recognition, Product Quality must be demonstrated by the utility's receipt of NACWA Silver, Gold, or Platinum *Peak Performance Awards* **for each of its facilities**, for the immediate year prior to the application year. (i.e. 2019 compliance for 2020 applications). **Please list all facilities and the *Peak Performance* level applied for. If existing facilities are offline, please make note and provide the year they went offline. *All facilities must receive either a Silver, Gold, or Platinum *Peak Performance Award*.** (An Excel spreadsheet listing all facilities and the expected level of recognition or facility status is preferred.)

- Financial Viability *(Required for EIM applicants — all applications must include this Attribute)*

  Understands and plans for the full life-cycle cost of utility operations and value of water resources. Establishes and maintains an effective balance between long-term debt, asset values, operations and maintenance expenditures, and operating revenues. Establishes predictable rates— consistent with community expectations and acceptability—adequate to recover costs, provide for reserves, maintain support from bond rating agencies, plan and invest for future needs, and taking into

account affordability and the needs of disadvantaged households. Implements sound strategies for collecting customer payments. Understands the opportunities available to diversify revenues and raise capital through adoption of new business models, including revenues from resource recovery.

NACWA Awards Committee Note:
To receive recognition, your description of the Financial Viability *Attribute* **must** reflect:
1. The practice of long-range financial planning;
2. The adoption of financial policies;
3. The establishment of financial performance metrics tied to financial policies; and
4. The inclusion of metrics and utility performance for fiscal years 2018, 2017, and 2016.

- Customer Satisfaction
  Provides reliable, responsive, and affordable services in line with explicit, customer-derived service levels. Utilizes a mix of evolving communication technologies to understand and respond to customer needs and expectations, including receiving timely customer feedback and communicating during emergencies. Provides tailored customer service and outreach to traditional residential, commercial, and industrial customers, and understands and exercises as appropriate the opportunities presented by emergent customer groups (e.g., high strength waste producers, power companies).

  NACWA Awards Committee Note:
  Including **metrics** in your 1-page description of this *Attribute* is **required**. Please emphasize and include metrics for public engagement initiatives. Other potential areas for which metrics could be provided include evidence of routine and emergency communication with customers and/or stakeholders seeking feedback and perspectives via surveys, forms, social media, etc. Please provide specific examples.

- Stakeholder Understanding & Support
  Engenders understanding and support from stakeholders (anyone who can affect or be affected by the utility), including customers, oversight bodies, community and watershed interests, and regulatory bodies for service levels, rate structures, operating budgets, capital improvement programs, and risk management decisions. Actively promotes an appreciation of the true value of water and water services, and water's role in the social, economic, public, and environmental health of the community. Actively engages in partnerships, involves stakeholders in the decisions that will affect them, understands what it takes to operate as a "good neighbor," and positions the utility as a critical asset (anchor institution) to the community.

- Operational Optimization
  Ensures ongoing, timely, cost-effective, reliable, and sustainable performance improvements in all facets of its operations in service to public health and environmental protection. Makes effective use of data from automated and smart systems and learns from performance monitoring. Minimizes resource use, loss, and impacts from day-to-day operations, and reduces all forms of waste. Maintains awareness of information and operational technology developments to anticipate and support timely adoption of improvements.

  NACWA Awards Committee Note:
  Including **metrics** in your 1-page description of this *Attribute* is **required**. Metrics provided

should demonstrate a trend of improvement over time in operational optimization areas cited. NACWA's Awards Committee will also consider programmatic optimization efforts by staff that do not involve automation, provided they are accompanied by demonstrated learning and improvement through performance monitoring.

- Employee & Leadership Development
  Recruits, develops, and retains a workforce that is competent, motivated, adaptive, and safety-focused. Establishes a participatory, collaborative organization dedicated to continual learning, improvement, and innovation. Ensures employee institutional knowledge is retained, transferred, and improved upon over time. Emphasizes and invests in opportunities for professional and leadership development, taking into account the differing needs and expectations of a multi-generational workforce and for resource recovery operations. Establishes an integrated and well-coordinated senior leadership team.

- Enterprise Resiliency
  Ensures utility leadership and staff work together internally, and coordinate with external partners, to anticipate, respond to, and avoid problems. Proactively identifies, assesses, establishes tolerance levels for, and effectively manages a full range of business risks (including interdependencies with other services and utilities, legal, regulatory, financial, environmental, safety, physical and cyber security, knowledge loss, talent, and natural disaster-related) consistent with industry trends and system reliability goals. Plans for and actively manages around business continuity.

  NACWA Awards Committee Note:
  This *Attribute* is inclusive of all enterprise resiliency initiatives, not solely emergency management. Potential areas to feature in your 1-page description include cyber security initiatives and business continuity planning for catastrophic operational and business process events, as well as emergency management.

- Infrastructure Strategy & Performance
  Understands the condition of and costs associated with critical infrastructure assets. Plans infrastructure investments consistent with community needs, anticipated growth, system reliability goals, and relevant community priorities, building in a robust set of adaptation strategies (e.g., for changing weather patterns, customer base). Maintains and enhances the condition of all assets over the long-term at the lowest possible life-cycle cost and acceptable risk consistent with customer, community, and regulator-supported service levels. Assures asset repair, rehabilitation, and replacement efforts are coordinated within the community to minimize disruptions and other negative consequences.

  NACWA Awards Committee Note:
  Including metrics in your 1-page description of this *Attribute* is desired, but not required. Your description should reflect the process through which infrastructure performance is linked to your capital improvement program and may include metrics that represent the elements of asset management and condition assessment (e.g. basement back-ups, blocked sewers).

- Community Sustainability
  Takes an active leadership role in promoting and organizing community sustainability improvements through collaboration with local partners (e.g., transportation departments, electrical utilities, planning departments, economic development organizations, watershed, and source water protection groups). Manages operations, infrastructure, and investments to support the economic, environmental, and social health of its community. Integrates water resource management with other critical community infrastructure, social and economic development planning to support community-wide resilience, support for disadvantaged households, community sustainability, and livability.

  NACWA Awards Committee Note:
  As you describe your efforts please note that this Attribute is inclusive of watershed-based infrastructure planning; green infrastructure initiatives; the management of greenhouse gas emissions; service affordability; and community economic development (as described in *X. Appendix C: Attribute-Related Water Utility Measures* of the *Effective Utility Management Primer*).

- Water Resource Sustainability
  Ensures the availability and sustainable management of water for its community and watershed, including water resource recovery. Understands its role in the complete water cycle, understands "fit for purpose" water reuse options, and integrates utility objectives and activities with other watershed managers and partners. Understands and plans for the potential for water resource variability (e.g., changing weather patterns, including extreme events, such as drought and flooding), and utilizes as appropriate a full range of watershed investment and engagement strategies (e.g., Integrated Planning). Engages in long-term integrated water resource management, and ensures that current and future customer, community, and ecological water-related needs are met.

  NACWA Awards Committee Note:
  As you describe your efforts please note that this Attribute is inclusive of not only water supply-related initiatives, but also water reuse (reclaimed water that is beneficially reused), as well as watershed sustainability to achieve overall optimized performance for the community and utility. (as described in *X. Appendix C: Attribute-Related Water Utility Measures* of the *Effective Utility Management Primer*).

Keys to Management Success

Leadership

Leadership must respond to both internal organizational and broader external community imperatives. It is critical to effective utility management, particularly in the context of leading and inspiring change within an organization and in its surrounding community.

"Leadership" refers both to individuals who can be effective champions for improvement, and to teams that provide resilient, day-to-day management continuity and direction. Effective leadership establishes and communicates a long-term vision for the organization and embodies a commitment to cultivating the organization's culture, helping to ingrain methods to achieve the utility's vision into the organization's day-to-day operations.

Leaders have an important responsibility to engage proactively with stakeholders and community decision makers, promote the utility as a valued, competent, and trustworthy environmental steward and community asset, and collaborate with external partners (including new and nontraditional partners, like the agricultural sector). Leaders should drive an awareness and commitment to workplace safety, organizational diversity, ethical conduct, and positive morale. Leadership further reflects a commitment to organizational excellence, leading by example to establish and reinforce an organizational culture that embraces positive change, providing new opportunities for emerging leaders, and planning for and assuring a seamless transition to new leadership when required. Organizational improvement efforts require a commitment to continual improvement from the utility's leadership, including the celebration of small and large victories for the utility.

Strategic Business Planning

Strategic business planning directs and helps to achieve balance and cohesion across the Ten Attributes. A strategic business plan provides a framework for decision making by:

- Assessing current conditions and conducting a strengths, weaknesses, opportunities, and threats (SWOT analysis);
- Characterizing a continuum of possible and likely future conditions;
- Assessing underlying causes and effects of future conditions; and
- Establishing vision, objectives, strategies, and underlying organizational values.

A successful strategic business plan is dynamic and adaptable, allowing the utility to capitalize on new and emerging opportunities. It is made more robust by engaging with staff and external stakeholders, and by utilizing planning methods that can accommodate and address a variety of future operating scenarios (e.g., managing for uncertainty through "stress testing" a plan's ability to hold up during extreme events, such as extended drought).

A strong plan reflects specific implementation steps that will move a utility from its current level of performance to achieving its vision. Preparation of a strategic business plan involves taking a longer-term view of utility goals and operations and establishing a clear vision and mission. The plan, through engagement with external stakeholders, should reflect key community values, needs, and interests. When developed, the strategic business plan should drive and guide utility objectives, measurement efforts, investments, and operations. A strategic business plan can also help explain the utility's conditions, goals, and plans to staff and stakeholders, stimulate change, and increase engagement and support for improvement efforts. After developing a strategic business plan, it is important that the utility integrates tracking of progress and clear accountability into its management framework and revisits the plan on a regular basis.

Knowledge Management

Knowledge management is another cornerstone of effective utility management and is critical to ensuring reliable utility operations. It spans standard operating procedures, human resource management, and business systems and operating systems data integration and utilization to support dependable operations and continual improvement across the Ten Attributes.

By ensuring that processes are well documented through writing down "this is how we do things" and regularly updating standard operating procedures and creating shared knowledge among various employee categories, a utility is able to respond effectively to the inevitable knowledge loss brought on by employee turnover or unexpected absences. An effective knowledge management system is flexible

to the use of new and evolving technologies and should be updated on an ongoing basis. Automated "smart" systems and data integration/management capabilities are an increasingly important aspect of efficient and effective continual improvement management. These systems and capabilities are available across all areas of utility management and can substantially improve the ability of utilities to track performance in real time, identify variability, and manage performance more effectively and precisely.

Measurement

Measurement is critical to management improvement efforts associated with the Attributes and is the backbone of successful continual improvement management and strategic business planning. A measurement system serves many vital purposes, including focusing attention on key issues, clarifying expectations, facilitating decision making, supporting learning and improving, establishing and maintaining accountability, and, most importantly, communicating effectively internally and externally. Always keep in mind the management adage, "If you can't measure it, you can't improve it." Successful measurement efforts should be:

- Carefully select a limited number of performance measures that are used to focus the organization on the achievement of the Strategic Business Plan goals;
- Viewed as a continuum starting with basic internal tracking, and moving to more sophisticated baselining and trend analysis as necessary, with development of key performance indicators, and inclusion of externally oriented measures which address community sustainability interests;
- Informed by staff input, driven by and focused on answering questions critical to effective internal management and external stakeholder needs, including information needed to allow governing bodies to comfortably support large capital investments; and
- Supported by a well-defined decision framework assuring results are evaluated, communicated, and addressed in a timely manner.

Continual Improvement Management

Continual improvement management is usually implemented through a complete, start-to-finish management system, also referred to as a "Plan-Do-Check-Act" framework. Continual improvement plays a central role in effective utility management and is critical to making progress on the Attributes. Continual improvement management includes:

- Conducting an honest and comprehensive self- assessment – informed through staff engagement – to identify management strengths, areas for improvement, priority needs, etc.;
- Conducting frequent sessions among interested parties (stakeholders) to identify improvement opportunities;
- Following up on improvement projects underway;
- Establishing and implementing performance measures and specific internal targets associated with those measures;
- Defining and implementing related operational requirements, practices, and procedures;
- Defining supporting roles and responsibilities to derive clear accountability for conducting assessments and implementing performance improvements;
- Implementing measurement activities such as regular evaluation through operational and procedural audits; and
- Responding to evaluations through the use of an explicit change management process.

Continual improvement management is further supported by gap analysis, establishment of standard operating procedures, internal trend analysis and external benchmarking where appropriate, best practice review and adoption, and other continual improvement tools. It can be used as a framework to help utilities understand improvement opportunities and establish explicit service levels, guide investment and operational decisions, form the basis for ongoing measurement, and provide the ability to communicate clearly with customers and key stakeholders.