RP3 RELIABLE PUBLIC POWER PROVIDER™

American Public Power Association

Application Guide

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Reliable Public Power Provider (RP_3) Application Guide

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About APPA

The American Public Power Association (APPA) is the voice of not-for-profit, community-owned utilities that power 2,000 towns and cities nationwide. We represent public power before the federal government to protect the interests of the more than 49 million customers that public power utilities serve, and the 93,000 people they employ. APPA advocates and advises on electricity policy, technology, trends, training, and operations. Our members strengthen their communities by providing superior service, engaging citizens, and instilling pride in community-owned power.

Purpose of this Guide

This guide serves as a resource for RP_3 applicants interested in the intent, spirit, and associated scoring guidelines for each of the questions within the RP_3 application. Guidance on what the RP3 Review Panel ("the Panel") is evaluating for each question in the RP_3 application is provided, along with a clear breakdown of the point value associated with each possible response. Criteria for grading these questions are established based on leading industry practices. The Panel members are responsible for grading each section that falls within their subject area of expertise. Throughout the grading process, each section will be reviewed, scored, and verified by several Panel members. Many questions will not require attachments. For these questions, utilities may choose to include additional documentation, but attachments are not expected.

This guide is meant to increase transparency in the Panel's grading expectations and help utilities better understand the application grading process. Please note that the guide is meant to be a suggestive, not prescriptive, resource.

Each question in the application has been explained in detail, and a scoring rubric has been provided. Please note that the final scoring decision for each question falls on the Panel. While the scoring rubric can serve as a general guide for what utilities should expect, the **ultimate scoring determinations are made exclusively by the Panel. If the Panel sees opportunities for improvement or deficiencies in response in any specific area, fewer points may be awarded.** The RP_3 application process should be viewed by utilities as an opportunity for coaching and feedback from industry experts.

Reliable Public Power Provider (RP_3 ®) Program Overview

APPA's RP_3 program is based on industry-recognized leading practices for public power utilities in four important disciplines:

- Reliability
- Safety
- Workforce Development
- System Improvement

Being recognized by the RP_3 program demonstrates to community leaders, governing board members, suppliers and service providers a utility's commitment to its employees, customers, and community. Additionally, an RP_3 designation is a sign of a utility focused on operating an efficient, safe, and reliable distribution system.

In the RP_3 program, applicants earn points for their practices and accomplishments in each of the four disciplines. Criteria posed as questions within each discipline are based on leading business practices and are intended to represent a utility-wide commitment to safe and reliable delivery of electricity. A list of the specific scoring criteria is provided in the following sections and summarized in the back of this manual. All information that is submitted by utilities during the RP_3 application process will be kept confidential by the RP_3 Review Panel and APPA staff.

Becoming a Reliable Public Power Provider: Application Process Overview

Application Timeline (When Can I Apply?)

Each year the RP_3 application opens for submissions on **May 1st** and closes on **September 30th.** Applications received are reviewed by the 18-member RP_3 Review Panel, which is comprised of public power employees from across the country. Based on the information provided in a utility's completed application, utilities may be recognized as a Gold, Platinum, or Diamond Reliable Public Power Provider.

Figure 1: Application cycle

RP_3 Utility Size Categories (What Size Class is My Utility/ How is My Utility Scored by Size?)

- Small Utility: Under 5,000 Customers
- Medium Utility: 5,000 – 30,000 Customers
- Large Utility: Over 30,000 Customers

Designation Levels (What Does My Score Mean?)

Designation Level	Points
Diamond	98 - 100
Platinum	90 - <98
Gold	80 - <90

Designation Period (Once I Receive a Designation, How Long Is It Good For?)

Beginning with the 2014 designees, RP_3 designations last for three years (e.g., utilities that apply in 2024 and receive an RP_3 designation in early 2025 will maintain that designation until early 2028. They will need to reapply in 2027 to maintain their designation after 2028). Utilities that wish to maintain their RP_3 status must re-apply every three years. The intent of the re-application process is to ensure RP_3 designees are consistently striving to maintain and improve the quality of their system.

Prior to the 2014 designation (2013 Application), RP_3 designations were valid for a two-year period (e.g., utilities that were designated in 2013, needed to reapply by September 30, 2014 in order to maintain their RP_3 status).

Requests for Information (RFIs)

While reviewing applications during the initial screening meeting, held in October after applications have been submitted, the Panel may issue Requests for Information, or RFIs. **RFIs are issued when the Panel may not be able to determine a grade based on the information that has been provided. If "No" was indicated as the response, an RFI may not be issued. RFIs are not necessarily issued for any question that receives less than full points, but only when the Panel needs clarification on any responses.** RFI responses should be completed before the final grading meeting in December.

Scoring Information

Credit for Leading Practices (How Are Points Allocated Among the 4 Disciplines?):

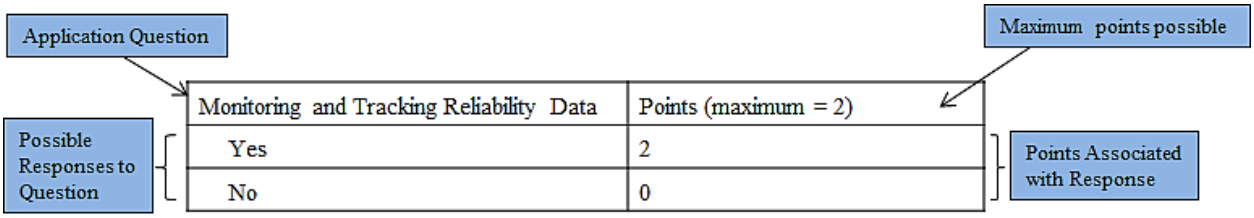
OBJ

Figure 2: Percentage allocation of points by RP_3 discipline

RP_3 Review Panel (Who Reviews My Application?)

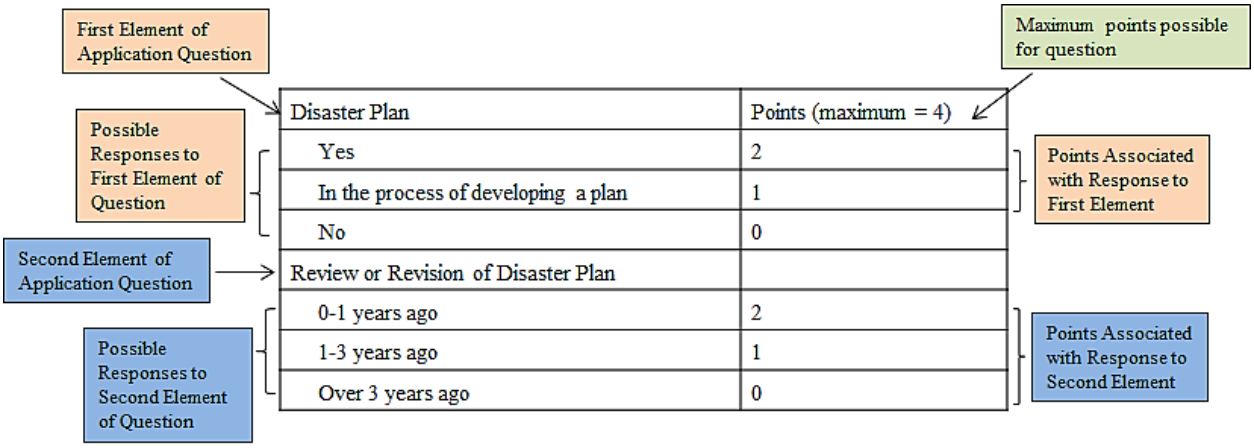
Each application received is thoroughly reviewed by an expert panel of public power representatives. The RP_3 Review Panel ("the Panel") has 18 members. There are six panel seats for two representatives each from small, medium, and large systems. Two seats represent either a joint action agency or a state association. The ten remaining seats are held by subject matter experts in the following areas: reliability; safety; system improvement; transmission and distribution; and workforce development (two representatives per each area). More information on the RP_3 Review Panel can be found at www.PublicPower.org/RP3.

Figure 3: Sample Scoring Guidelines, yes or no question



The complexity of the question will impact the scoring guidelines. While some questions will be graded on a yes or no basis, others will require a more in-depth evaluation by the Panel. In instances where there are several layers to a question, partial points may be awarded based on quality. Where applicable and possible, these partial breakdowns of points have been presented. While the scoring rubric can serve as a general guide for what utilities should expect, the **ultimate scoring determinations are made exclusively by the Panel. If the Panel sees opportunities for improvement or deficiencies in response in any specific area, fewer points may be awarded.**

Figure 4: Sample Scoring Guidelines, multi-layered question



Utility Information and RP_3 Application Payment

Application Registration (How Do I Start the Application Process?)

Prior to gaining access to the RP_3 application, applicants must submit a basic registration form. APPA staff uses this information to create a utility profile in the online application system. In addition, the form asks for a primary contact for the utility. This individual will be contacted with any questions the Panel or APPA staff may have concerning the application. All correspondence relating to the application will also be sent to this individual.

Payment (How Do I Pay for My Application?)

The RP_3 online payment form is used to complete the application fee to partially cover costs associated with processing, examining, and scoring all submissions. This fee must be paid each time you apply for RP_3 status. The fee structure is dependent on your utility size based on the number of customers your utility serves. The application fee is not refundable if the RP_3 criteria are not met. However, if you do not receive the RP_3 designation for any reason, you may re-apply the year immediately following your initial application without paying the application fee again. You may pay the fee online, by check, by credit card, or you can request that APPA bill your utility directly[1] (APPA members only for this option).

Additional Utility Information (What Unscored Information Will I Need to Add to My Application?)

Additional details about the utility may be provided in the first question of the RP_3 application, which asks for utility employee demographics. This information is used during the assessment of your RP_3 application. The number of employees must be filled out to the best of your ability. Four categories of employee demographics are required in the first table, and a more detailed breakdown may be provided in the second table. Utilities that offer more than electric service (e.g. gas, water, and sewer) should account for all electric-side only employees (operations, engineering, etc.). If the electric side of the utility is not distinctly separated from the other services, anybody that supports the electric side of your operations should be included in the final number of utility employees. For example, if your utility offers three services, one third (or the equivalent proportion of employee time devoted to electric services) of the shared support staff (accounting, reception, etc.) should be included in your final number of electric employees.

[1] Please note APPA's policy: utilities that request to be billed directly will be charged a processing fee of $10.00.

It is helpful for the Panel to understand the employee breakdown of your system. Any documents attached should clearly illustrate the number of employees in the electric operations side of your utility, including engineering, line work, metering, human resources, accounting, or any other area that contributes to the electric division.

Reliability Section

The following is a sequential, question-by-question review of the RP_3 application's Reliability Section. Each question in this section is explained, and the scoring rubric is outlined.

A – Reliability Indices Collection

Monitoring and Tracking Reliability Data (A1)

Monitoring and tracking indices provides a utility with valuable information. Many utilities have developed in-house reliability tracking systems, some of which are computer based. Utilities should demonstrate awareness of system performance through the use of reliability indices to maintain or improve the system. Utilities should also have a process for tracking and reporting outages on a regular basis. Hand calculations, APPA's eReliability Tracker service[2], alternate software programs, or other monitoring and tracking methods that are deemed by the RP_3 Review Panel to be of equal integrity will receive full credit for this question.

Monitoring and Tracking Reliability Data	**Points (maximum = 2)**
Yes, with documentation provided	2
No	0

Reliability Statistic Tracking (A2)

An RP_3 utility should demonstrate awareness of its system performance by tracking reliability indices and using indices to maintain or improve system reliability. Industry standard indices (IEEE 1366) are the preferred method of tracking performance. Indices provided should reflect the most recent year of data and at least three indices should be tracked. The RP_3 program allows utilities to provide any and all acceptable indices such as: SAIDI, CAIDI, ASAI, SAIFI, and MAIFI.

In addition to tracking reliability indices, utilities should also be setting goals or targets for improving their system reliability. A utility should include their utility goal or target for at least 3

[2] APPA's Research & Development Program, Demonstration of Energy and Efficiency Developments (DEED), launched eReliability Tracker, which is a software program that enables a utility to track outages and develop reliability indices including ASAI, CAIDI, SAIDI and SAIFI reports. This software is one tool available for electric systems to evaluate their operations based on the results of the reports created. APPA's eReliability Tracker can be purchased through the APPA Product Store. More information on relevant APPA resources is available in Appendix A of the application guide.

indices they track in order to earn maximum points. This question is meant to push you to consider the following questions at your utility:

- Are you tracking your reliability statistics?
- Do you have a goal you are actively working towards?
- Are you evaluating how you are working towards this goal?

Example:

Index	Period of Measure	Value of Index	Utility Goal/Target
SAIDI (Minutes/Year)	January 2022 – December 2022	45.6 minutes	40 minutes

The intent of this section is not to compare your utility's index values against other utilities, or even against your utility's previous goals or targets; rather, it is to ensure that your utility is monitoring and tracking reliability data to maintain and improve its system.

For utilities with only a transmission system, it is recognized that the metrics requested are primarily used by distribution utilities. However, the question's intent is to show that reliability is tracked and used to improve the electric utility system. Transmission utilities should check the "other" box and describe or attach three transmission reliability metrics and include goals or targets for each metric provided.

Reliability Statistic Tracking	Points (maximum = 3)
3 or more indices tracked	2
2 indices tracked	1
Less than 2 indices tracked	0
Goals/targets provided for at least 3 indices tracked	1

Reliability indices are the measures used to track and evaluate system performance. The frequency of system failures, number of customers affected, and duration of outages are three basic metrics used in measuring reliability.

IEEE Standard 1366 classifies interruptions on the distribution system into four types:

- *Momentary Interruption*: These are the outages that occur on the system and last five minutes or less until the fault is cleared and service to all customers is restored. The major causes for this type of outage are trees, animals, and lightning.
- *Sustained Interruption*: These are the outages that occur on the system and last more than five minutes until the fault is cleared and service to customers is restored. Partial service restoration may be performed through technical switching procedures and field ties.
- *Major Event*: An event that is statistically significant compared to the utility's outage history. Statistical significance can be determined by using the IEEE 1366 Beta method. Events that are significant should be separated for analysis when calculating reliability indices. These outages can be caused by severe weather conditions (e.g. hurricanes, tropical storms, ice storms, etc.) and cascading outages resulting from the loss of one or more major transmission lines.
- *Planned Interruption*: A loss of electric power that results when a component is deliberately taken out of service at a selected time, usually for the purposes of construction, preventive maintenance, or repair.

Typically, utilities exclude scheduled outages, partial power, customer-related problems, and qualifying major events from the reliability indices calculations.

For examples of reliability index calculations and basic descriptions of what each index measures, refer to Appendix B: Reliability Index Calculations.

B – Reliability Indices Use

Use of Service Reliability Indices (B1)

Not only is it important to track reliability indices, it is equally important to use the data collected to maintain and improve your utility's system reliability. Information collected as reliability indices can highlight potential areas for improvement on the utility's system, and utilities are encouraged to use this information proactively. For example, some systems may use the data to decrease the amount of time between tree trimming cycles, as trees could have been linked to higher momentary outages.

The checklist items are only a sampling of ways that your utility may use reliability data. If applicable, please describe or provide attachments of other ways your utility may use indices. Utilities should demonstrate the use of at least four of the methods listed to improve the system based on service reliability indices.

If no reliability indices were provided on question I.A.2 (Reliability Statistic Tracking), the utility must provide information on how it determines where and how to improve its system to earn points. For example, if the utility engages in vegetation management efforts or installs new squirrel guards, information should be provided on how the timing or installation of these improvements are determined.

Use of Service Reliability Indices	**Points (maximum = 4)**
Yes (6 or more methods used)	4
Yes (4 or more methods used)	2
No	0

National Reliability Benchmarking (B2)

Participation in national reliability benchmarking can help your utility compare your reliability performance against peers and identify system maintenance and improvement opportunities. Examples of reliability benchmarking surveys or services include APPA's eReliability tracker service, and other industry surveys. Submitting EIA 861 industry benchmarking results (not your EIA 861 submittal) is acceptable as long as these results are from within a year of your application submittal. Your utility must show that it is using the aggregate data to benchmark its metrics nationally.

Leading practice is to participate in a national reliability benchmarking survey or service. Utilities should attach documentation of the national/regional reliability survey or service it uses for full credit.

See http://www.PublicPower.org/reliability for more information.

National Reliability Benchmarking	**Points (maximum = 2)**
Yes, participation in national or regional benchmarking	2

No	0

C – Mutual Aid

National Mutual Aid Agreement (C1)

Utilities establish mutual aid agreements with neighboring and regional utilities in order to improve service restoration efforts during power outages. Mutual aid agreements are an essential element of a utility's response plan during power outages that enable them to call upon other utilities for help in a disaster (by providing labor, tools, spare parts, and mobile equipment, etc.). Establishing a mutual aid agreement requires advance sharing of information among member utilities. Furthermore, participating in a national mutual aid agreement is a beneficial precaution, especially if your utility encounters a situation where it requests Federal Emergency Management Agency (FEMA) funding. Utilities should demonstrate that they are prepared for major events that could require more resources than typically available. While local, state, or regional mutual aid programs are beneficial, utilities are encouraged to participate in programs that are national in scope.

National Mutual Aid Agreement	**Points (maximum = 3)**
Yes, National	3
Yes, State/Regional	2
Yes, Other (Utility to Utility)	1
No	0

Having mutual aid agreements in place has proven beneficial to utilities as they improve their reliability by reducing the "down time" for power outages, especially during catastrophic events. An example of the nationally accepted American Public Power Association/NRECA mutual aid form is available on APPA's website at www.PublicPower.org/mutualaid. A list of utilities that have signed the agreement is posted to this website. If your utility does not currently have this agreement on file with APPA, submitting it with your completed application will satisfy the mutual aid section of the RP_3 application. Some utilities may have mutual aid relationships that do not fit the state/regional or national scope; examples of these types of mutual aid agreements could include local partnerships, bilateral agreements, or "sister cities." While these mutual aid relationships are important and beneficial, the Panel recommends that utilities engage in a national agreement as a supplement in case of a large-scale disaster. Utilities

should attach documentation of their national or regional mutual aid agreement to ensure full credit.

D – Utility Disaster Plan

Disaster Plan (D1)

Disaster plans, or emergency response plans, are used by utilities to help coordinate their response to emergency situations of various kinds. Disaster plans should include detailed information on how utility personnel should proceed in a disaster. While a leading practice is for utilities to have a stand-alone, utility-specific disaster plan, in some scenarios a city's disaster plan may include an electric-utility specific section.

For some utilities, one comprehensive disaster plan may suffice. Other utilities may have individual plans for each type of disaster that address information technology, weather, terrorism, transmission, generation, etc.

Disaster plans should be revised and/or reviewed on a regular basis. A utility should review and/or revise their disaster plan on an annual basis. For smaller utilities, this process may be as simple as verifying or updating contact information of essential personnel and important partners in the community. An outdated plan will become stale and unusable should a disaster occur after conditions have changed. It is also important to perform periodic disaster drills to ensure the effectiveness of the plan. Although it is recommended that the plan be available to the public, employees, government officials and the media, it is understood that confidentiality may apply to certain security-sensitive sections of a well-developed plan.

To meet the RP_3 criteria for a sufficient utility disaster plan, the RP_3 Panel recommends that the utility provide the index or table of contents of the plan(s) with your completed RP_3 application, as that documentation should provide an accurate sampling of your utility's plan coverage. Plans should include but are by no means limited to:

- Damage assessment procedures
- List/contact information of all employees and critical customers
- List/contact information of suppliers – including food, fuel, lodging for mutual aid crews, etc.

- Location of Emergency Operations Center (EOC) and possible back up locations
- Radios/communication plans and policies
- Details regarding your system's coordination with, and role in, a city-wide, county-wide, or regional emergency plan
- Outline of outside resources that are available to the utility to rebuild the system
- List of electric supply companies that can be called on to provide materials
- Outline of the communications responsibilities to inform the public, government agencies, and the media on restoration efforts
- Priority list of restoration efforts (hospital, police, water/sewer plants, etc.)
- Regularly updated priority list of critical health care providers, including nursing homes and assisted-living facilities
- Information for mutual aid crews:
    - Contact information of utility staff and contractors
    - One-line diagrams and circuit maps for the distribution system
    - Load data and system/equipment capacities
    - Inventory quantities for poles, transformers, cross-arms, connectors, fuses, etc.
    - Availability of written switching procedures on both the substation and circuit level
    - Equipment availability including number of derrick trucks, bucket trucks, and excavators
    - Personnel availability including classification
    - Compensation and insurance arrangements
    - Safety briefings on specific utility practices and procedures

Please refer to an example of a filled table (note that the table below shows only a portion of the sub-question):

Disaster Plan Topic	**Addressed in Utility Plan? (Yes/No)**	**Attachment Name and Page Number**
Damage assessment procedures	Yes	"City Plan_Utility Damage Assessment Procedures" and pages 13-20

List/contact information of all employees and critical customers	No	
List/contact information of suppliers – including food, fuel, lodging for mutual aid crews, etc.	Yes	“Utility Disaster Plan” and pages 1-12
Location of Emergency Operations Center (EOC) and possible back up locations	Yes	“City Plan_EOC” and pages 21-24
Radios/communication plans and policies	Yes	“Utility Disaster Plan” and pages 14-16

Disaster Plan	**Points (maximum = 4)**
Yes, utility has a disaster plan that includes detailed information and coverage of topics identified in this guide (approximately 8-12 items addressed with evidence provided in the attachments)	3
Yes, utility has a disaster plan with moderate detail and coverage of topics identified in this guide (4-7 items addressed with evidence provided in the attachments)	2
Yes, utility has a disaster plan with approximately 3 or fewer items addressed with evidence provided in the attachments	1
No, in the process of developing a plan	0.5
No	0
Review or Revision of Disaster Plan	
0-1 year ago (May 2023 – September 2024)	1
1-3 years ago (May 2021 – May 2023)	0.5
Over 3 years ago (older than May 2021)	0

If the index or table of contents does not demonstrate a strong disaster plan with clear indication of regular revision or review, the Panel may request that you provide more information regarding your utility's plan.

Disaster Drills (D2)

Disaster preparation in the form of disaster drills, or exercises, allows utilities to be better prepared when an unexpected disaster strikes, which should also reduce the time that customers will be without critical services. Preparation for a disaster may also uncover weaknesses in the system or processes that can be corrected before an actual incident occurs. Categorizing disaster drills as tabletop or field (including emergency drills in administrative buildings) is important to understand the variety of your drills. Keeping track of when drills were performed is also important. Note that fire drills should be related to major system requirements and preparation for disaster events. Also note that routine office building fire drills do not count towards credit.

Utilities should conduct at least one drill each year. In addition, a well-prepared utility will identify when and in what areas future drills need to be conducted to be sure its staff is ready in the event of an emergency. Note that an actual event could qualify as a "drill" only if the utility determined and evaluated lessons learned from the event. Please include a description of one disaster drill conducted and lessons learned from the drill or event. Utilities should also refer to their disaster plan when answering this disaster drills question.

Disaster Drills	**Points (maximum = 1)**
Yes, with documentation provided	1
No	0

E – Physical

Physical Security (E1)

Utilities should be constantly mindful of threats due to security breaches such as vandalism and terrorist attacks. A utility's critical infrastructure such as substations, control centers, personnel, and other facilities should be included in a plan to prevent such outages. Utilities must develop the best available mitigation practices to address such attacks. For example, a utility might implement security policies and plan awareness trainings for all employees or require identification for any visitor entering the facility.

For more information regarding physical security, please consult the latest edition of APPA's Safety Manual.

Physical Security	Points (maximum = 3)
Yes, 4 or more boxes checked	3
Yes, 3 boxes checked	2
Yes, 2 boxes checked	1
No	0

NOTE: "Other" checkbox may be counted as multiple boxes checked if multiple items are listed.

F – Cyber Security

Cyber Security Policy or Procedure (F1)

In the past few years, cyber threats have surfaced as a significant and diverse set of concerns within the electric utility industry. As such, it is imperative for utilities to know what level of cyber security they require to avoid unauthorized system access. Establishing a cyber security policy or procedure that covers both prevention and response in the case of a cyber security breach is an integral part of ensuring that the utility is being proactive in the area of cyber security. While NERC Critical Infrastructure Protection (CIP) standards do not apply to all utilities, all utilities should have a framework that covers the identification and protection of critical IT and OT assets, coupled with plans to respond to and recover from any cyber incidents.

Cyber Security – Policy or Procedure	Points (maximum = 1)
Yes, 6 boxes checked	1
Yes, 2 to 5 boxes checked	0.5
No **OR** 1 box checked	0

Cyber Security Awareness or Training (F2)

Due to the pervasiveness of cyber-threats, it is also important to train employees on cyber security matters and encourage cyber awareness among all employees. A good training program focuses on increasing technical mitigation and response knowledge in key employees while also increasing awareness among employees that operate internet-connected utility assets. Best practice is for this to occur at least annually.

Cyber Security – Awareness or Training	Points (maximum = 1)
Yes, 4 boxes checked and training at least annually	1
Yes, 2 to 3 boxes checked	0.5
No **OR** 1 box checked	0

Cyber Security Vulnerability Assessments (F3)

Conducting periodic assessments of the integrity of your utility's cyber security protections is critical to ensuring that the policy, training, and awareness are all properly coordinated. Assessments should involve looking at all cyber security risks including identifying business risks, appropriate preventative measures, and technical issues such as security gaps in network-connected devices.

Assessments may be brief depending on each utility's unique situation but should be conducted on an annual basis as well as whenever new systems are implemented. Continuous monitoring of your system can not be substituted for conducting cybersecurity assessments.

Cyber Security – Vulnerability Assessments	Points (maximum = 1)
Yes, at least annually **AND** when new systems are implemented	1
Yes, at least annually **OR** when new systems are implemented	0.5
No	0

More information about cyber security concerns for the industry can be found by referring to the following resources:

- American Public Power Association's Public Power Cybersecurity Roadmap https://www.publicpower.org/system/files/documents/Public-Power-Cybersecurity-Roadmap_0_0.pdf
- American Public Power Association's Public Power Incident Response Playbook https://www.publicpower.org/resource/public-power-cyber-incident-response-playbook
- American Public Power Association's *Cyber Security Information Engagement Plan* https://my.publicpower.org/s/store#/store/browse/detail/a156g000004Dc1UAAS

- Electricity Sector Information Sharing and Analysis Center (ES-ISAC): https://www.eisac.com/
- North American Electric Reliability Corporation Critical Infrastructure Protection (NERC CIP): https://www.nerc.com/pa/Stand/Pages/ReliabilityStandards.aspx
- Department of Homeland Security (DHS): www.DHS.gov/topic/cybersecurity
- National Security Agency (NSA): https://www.nsa.gov/
- National Institute of Standards and Technology Special Publication 800 Series on Computer Security: http://csrc.nist.gov/publications/PubsSPs.html
- National Institute of Standards and Technology Interagency Report (NISTIR) 7628: http://csrc.nist.gov/publications/PubsNISTIRs.html

Safety Section

The following is a sequential, question-by-question review of the RP_3 application's Safety Section. Each question in this section is explained, and the scoring rubric is outlined.

A – Safety Manual

Use of a Safety Manual (A1)

The ultimate source for safety compliance information lies within a good safety manual. Using a safety manual, whether APPA's, your utility's, or an outside source's, is a recognized leading practice, and provides the foundation for a utility-wide safety program. A safety manual that addresses safe practices for every utility employee (lineworker, office worker, meter reader, etc.) is essential.

The quality of the safety manual that is used is equally important; using the most current edition of an outside safety manual or keeping your utility's own safety manual up-to-date with appropriate revisions at least every five years is critical to maintaining a safe work environment.

Utilities should demonstrate use of an industry-appropriate safety manual or clearly defined and documented innovative approach. Non-APPA safety manuals will be reviewed by the RP_3 Panel safety representatives to determine appropriate coverage. Utilities that use APPA's Safety Manual should use the most up-to-date edition; other manuals or programs should have been reviewed or revised in the last five years. The most up-to-date version of APPA's Safety Manual is the 17^{th} edition.

Also, essential to ensuring the safety of employees is conducting formal reviews of the manual. Utilities should conduct formal reviews of the safety manual with their employees on an annual basis and whenever there are new revisions.

Use of a Safety Manual	Points (maximum = 4)
Yes	2
No	0
Up-to-date	
Yes	1
No	0
Formal Review of Manual	
Yes	1
No	0

Directive to Use, Read, and Understand the Safety Manual (A2)

Formally acknowledging required adherence to the guidelines presented in the utility's designated safety manual is a method of documenting that your utility has formally recognized that manual and instructed all employees to follow it for all safety-related work practices.

It is also just as important that the utility management communicate to utility employees the accepted safety-related work practices that employees are expected to adhere to when working for the utility. A directive can be a letter or other formal communication from the general manager/city council member/highest ranking member of your utility addressed to all utility employees (Sample Safety Directive available in Appendix C). Instructing employees to sign the first page of the safety manual does not fulfill the intent of this best practice. Ideally, this directive will be issued on a regular basis (for example, every year) and/or when a new safety manual or approach is updated and/or adopted. It is important to have a safety culture that starts from the top of the utility and goes all the way down the ladder to reach all employees.

Utilities should provide written documentation of a directive issued by utility management instructing all employees to use, read, and understand the designated safety manual. The directive should reference the safety manual or approach identified in question A1.

Directive to Use, Read, and Understand the Safety Manual	Points (maximum = 1)
Yes, with documentation provided	1
No	0

B – Safe Work Practices

Regular Safety Meetings (B1)

Regularly scheduled safety meetings are key to establishing and maintaining an effective safety program. Well-planned and executed safety meetings provide a forum for management and employees to have a dialogue related to pertinent issues affecting the company's operations. A utility should hold safety meetings not only for operations/field employees, but also for management/administrative/other office employees. While these safety meetings may differ in frequency and length for different employees (e.g. lineworkers may have three 30-minute safety meetings per week, whereas office engineers may meet for one hour per month), it is still important to ensure that the culture of safety resonates across all employee levels.

A leading practice for meeting frequency and duration has been established as at least one hour per month for operations/field employees, and one hour per quarter for management/administrative/other employees. Note that job briefings, such as tailboard discussions, are not considered safety meetings for the purpose of this question.

Safety training is often carried out by staff employees, but safety programs are most effective when the utility's senior management is involved in the planning and/or execution of the safety training function. This function will vary at each utility, but it is essential that there is some level of active participation by senior management on an annual basis at minimum. Management participation is one of the major components of an effective program.

Regular Safety Meetings	**Points (maximum = 4)**
Yes	1
No	0
Operations/Field Employees	
At least 1 hour/month [or 12 hours/year]	1
Less than 1 hour/month [or 12 hours/year]	0
Administrative/Management/Other Employees	
At least 1 hour/quarter [or 4 hours/year]	1
Less than 1 hour/quarter [or 4 hours/year]	0
Senior Management	
At least once a year	1

Less than once a year	0

Policy or Practice for Safety Rule Enforcement (B2)

Establishing safety rules at a utility is an essential element of developing a culture of safety in the workplace. Equally important is ensuring that those rules are followed. By having a written policy or practice to enforce safety rules, management can emphasize the importance of adhering to established rules. Enforcement includes disciplinary actions, penalties for non-compliance, and other ways in which management holds employees accountable.

Policy or Practice for Safety Rule Enforcement	**Points (maximum = 1)**
Yes, with documentation/description provided	1
No	0

Documented Job Briefings (B3)

Per the National Electrical Safety Code (NESC), a first-level supervisor or person in charge is responsible for conducting job briefings (tailgate discussions) with employees prior to beginning each job in the field. These job briefings should cover important subjects that pertain to the task at hand, including:

- hazards associated with the job;
- work procedures involved;
- special precautions and risk mitigation;
- energy source/hazard controls;
- personal protective equipment (PPE) requirements; and
- emergency response information.

Utilities should hold job briefings for electric employees and maintain records on each briefing conducted. Many utilities will use a template to document their job briefings. Please include either a sample filled-out copy of your utility's template, or an example of how your utility documents job briefings (redacted versions are acceptable) along with your response.

More on job site briefings and examples from RP_3 designated utilities can be found at the RP_3 Resources page.

Required Job Briefings	**Points (maximum = 3)**

Yes, briefings required and documented	3
Yes, briefings required but not documented	1.5
No	0

Job Site Inspections (B4)

Regular job site safety inspections are a part of safety enforcement practice and should be conducted on a monthly or more frequent basis. Note that a job site inspection is not the same as a briefing. To view examples of job site inspection forms and more information on safety inspections, visit the RP3 resources page or click here.

Job Site Inspections	**Points (maximum = 2)**
Yes, with documentation provided	2
Yes, with no or insufficient documentation provided	1
No	0

Safety Orientation Practice or Procedure (B5)

Many utilities rely on non-utility employees to work on the system, either on a regular, sporadic, or emergency-only basis. These individuals can range from long-term contracted workers to visiting lineworkers helping restore service in a mutual aid situation. Regardless of the nature of the project or the duration of the partnership, utilities should have a meeting, practice, or established procedure to conduct a safety orientation with all non-utility employees working on the system to ensure clear understanding of your utility's safety standards. Safety orientations should provide utility-specific safety rules, processes, and procedures that will help non-utility staff be prepared before work begins. Please describe or attach a copy of the utility's practice or procedure for conducting safety orientations with non-utility employees. If you do not have a formal policy, please describe the procedure you would use to orient a contractor or mutual aid utility. A copy of the utility's job site briefing does not meet the criteria of a formal safety orientation.

Safety Orientation Practice or Procedure	**Points (maximum = 1)**
Yes, with documentation/description provided	1
No	0

Accident Investigations/Near-miss Reports (B6)

Performing accident investigations and filing near-miss reports are critical steps towards preventing future accidents. A well-documented accident investigation or a near-miss report could provide invaluable information to other employees who may not have been at the scene of the accident. Equally important is using the information gathered in these reports to change utility safety practices/rules that may be insufficient or flawed. Please attach a copy of the utility's near miss form or accident form.

Sample near-miss reports may be found at RP_3 Resources page.

Accident Investigations/Near-miss Reports	Points (maximum = 2)
Yes, with documentation provided	2
No	0

NOTE: If no accidents or near-misses have occurred during the review period, the utility will receive full points if they provide a standard report form for near-misses or accidents.

Annual Refresher Training for OSHA-type Issues (B7)

An electric safety program includes but is not limited to well-planned and delivered safety trainings. The RP_3 Panel understands that many utilities will not fall under Occupational Safety and Health Administration (OSHA) jurisdiction. However, all electric utilities should be informed and up to date on OSHA-type issues. The core intent of this question is to encourage electric utilities to conduct annual refresher trainings in certain areas including CPR/AEDs, pole-top rescue, bucket-truck rescue, etc. Many of these issues are significant and important enough to focus additional resources that are above and beyond monthly safety meetings. Utilities are encouraged to provide at least seven types of annual refresher trainings on OSHA-type issues for employees each year.

Annual Refresher Training for OSHA-type Issues	Points (maximum = 2)
Yes, 7 or more types of training each year	2
Yes, 5-6 types of training each year	1.5
Yes, 3-4 types of training each year	1
Yes, 1-2 types of training each year	0.5
No, no training offered	0

Automated External Defibrillators (AEDs) (B8)

Ensuring that employees are CPR certified may help save a life. An additional life-saving tool is the Automated External Defibrillator (AED), also referred to as a Portable Defibrillator (PD). Defibrillators are available from numerous medical equipment providers. When maintained and used properly, AEDs can mean the difference between life and death. Based on industry standards and nationally recognized research[3], the RP_3 Panel has determined that AEDs should be immediately available at all times at every work-site location to ensure employee safety. Work-site locations include office locations, operations/field work-site locations, and power plant locations. Depending on how a utility configures its workforce, AEDs may be needed on every truck in the field to meet these criteria.

Automated External Defibrillators	**Points (maximum = 1)**
Yes, available at all work site locations	1
Yes, available at some work site locations	0.5
No	0

Arc Hazard Assessments (B9)

Arc hazard assessments are an essential component of ensuring safe working conditions for employees working on or near energized lines, parts, or equipment. For more information refer to the current edition of the National Electric Safety Code. The utility should use the information gathered in the arc hazard assessment to notify and train all affected employees regarding the associated requirements for each type of job. Best practice is to conduct an arc hazard assessment at least once every 5 years or since the most recent system change that affected personnel exposed to electric hazards.

Arc Hazard Assessment	**Points (maximum = 2)**
Yes	1
No	0
Notified and Trained Affected Employees	
Yes	1
No	0

[3] https://www.osha.gov/SLTC/aed/

C – Benchmarking

National Safety Index Benchmarking (C1)

Annual safety index benchmarking allows individual utilities to compare their safety performance to other utilities, define long-term trends, and identify areas for improvement.

Examples of safety index benchmarking surveys or services include APPA's Safety Awards of Excellence, APPA's eSafety Tracker service, and other industry surveys. Submitting OSHA 300A industry benchmarking results (not your OSHA 300A submittal) is acceptable. Your utility must show that it is using the aggregate data to benchmark its metrics nationally.

While participating in a national benchmarking service is best practice, utilities may also submit documentation showing participation in a state or regional safety benchmarking survey or service. Documentation should indicate participation in safety benchmarking for the most recent calendar year.

For more information on APPA's Safety Awards of Excellence, or eSafety Tracker, please visit www.PublicPower.org/Safety or contact APPA's Safety Team at Safety@publicpower.org.

National Safety Index Benchmarking	**Points (maximum = 2)**
Yes, participation in a national survey	2
Yes, participation in a regional survey	1
No	0

Workforce Development Section

The following is a sequential, question-by-question review of the RP_3 application's Workforce Development Section. Each question in this section is explained, and the scoring rubric is outlined.

A – Succession Planning and Recruitment

Demographics (A1)

By keeping track of employee demographics, your utility can be prepared to identify when employees may retire and in which departments you are most likely to lose key personnel. This analysis allows the utility to focus training and hiring in areas where you will have gaps in the future. Being proactive in this area could pay back dividends in terms of having employees ready to swiftly take over new responsibilities. If your utility tracks employee eligibility for retirement, please provide the percentage of employees that are eligible to retire in the next five years.

Demographics	**Points (maximum = 3)**
Yes	3
No	0

Knowledge Management (A2)

Today's workforce is changing more rapidly than ever before: much of the workforce is approaching the retirement age, and employee turnover rates have increased in recent years. It is therefore critical to ensure the stability of your utility's operations by addressing knowledge management through various processes. Helpful tools include the development of a succession plan, offering leadership programs, or establishing relationships with universities and trade schools. Such policies and procedures will help ensure continuity in the workforce, especially when unexpected vacancies occur.

This question references job shadowing and cross training. Job shadowing refers to a program where utility employees follow another employee as they work. This allows employees to learn skills critical to the job role they are shadowing. On the other hand, cross training refers to the practice of training your employees to fully assume alternate work roles. This gives your utility

greater flexibility and the ability to move people around when faced with staff shortages or busy seasons.

Documentation or detailed descriptions should be provided for each knowledge management tool checked. If providing a description of utility practices, please include as much detail as possible, and include examples where applicable.

Knowledge Management	**Points (maximum = 5)**
5 tools used, with documentation or description attached	5
4 tools used, with documentation or description attached	4
3 tools used, with documentation or description attached	3
2 tools used, with documentation or description attached	2
1 tool used, with documentation or description attached	1
0 tools used	0

NOTE: “Other” checkbox may be counted as multiple boxes checked if multiple items are listed.

Employee Recruitment Procedure or Practice (A3)

Along with a plan to ensure knowledge management within your utility, having procedures or policies in place to address employee recruitment helps strengthen your utility’s workforce. This will allow your utility to strategically focus its recruiting efforts to address anticipated and emerging staffing shortfalls. As a part of this strategy, it is important to establish recruitment policies or procedures. Recruitment practices such as conducting student outreach programs at local schools, colleges, and universities or hosting student interns can help the utility attract new employees.

Employee Recruitment – Procedure or Practice			**Points (maximum = 2.5)**
Large Utility	*Medium Utility*	*Small Utility*	

5 or more boxes checked	4 or more boxes checked	2 or more boxes checked	2.5
3-4 boxes checked	2-3 boxes checked	1 box checked	1.5
0-2 boxes checked	0-1 boxes checked	0 boxes checked	0

NOTE: “Other” checkbox may be counted as multiple boxes checked if multiple items are listed.

Employee Retention (A4)

Procedures or policies that address employee retention help ensure that employees are content in their work environments. To maintain employee satisfaction, it is important to offer a range of benefits and incentives. Retention practices can include employee recognition, flexible work hours, or an option to work from home.

Employee Retention – Procedure or Practice			**Points (maximum = 2.5)**
Large Utility	*Medium Utility*	*Small Utility*	
5 or more boxes checked	4 or more boxes checked	2 or more boxes checked	2.5
3-4 boxes checked	2-3 boxes checked	1 box checked	1.5
0-2 boxes checked	0-1 boxes checked	0 boxes checked	0

NOTE: “Other” checkbox may be counted as multiple boxes checked if multiple items are listed.

Compensation and Salary Benchmarking (A5)

Compensation and salary benchmarking allow individual utilities to compare their compensation and salary packages against those of their peers. Examples of engaging in salary benchmarking include participating in APPA’s annual public power salary survey or utilizing an external salary/compensation benchmarking service. Best practice is to participate in salary benchmarking at least once every 3 years.

Compensation/Salary Benchmarking	Points (maximum = 1)
Yes	1
No	0

B – Employee Development and Recognition

Goal Setting Process (B1)

Employee goal setting plans and processes are personalized strategies that outline incremental steps to improve and expand employee skills and performance. There are a variety of ways to tackle goal setting; some utilities review the career development path with their employees as a component of an annual review while others have a more formal procedure that involves sitting down with the employee on a quarterly basis. The composition of these plans will depend on a variety of factors, including the size of your utility, how progression works within your utility, utility/council rules, etc. Regardless of these policies, giving employees this opportunity at least once a year will encourage them to grow with your utility. Note that an individual development plan does not need to be an outline for promotion within the utility or tied to monetary incentives; in many instances, development plans can be designed to offer steps for employees to better themselves as individuals and employees, such as encouraging participation in training opportunities. For purposes of this application, a generic apprentice program is not considered part of a goal setting process. To be considered for the RP_3 application, **specific personal and/or professional goals must be set for each individual**. Examples goals could include: pass Lineworker 1 test, take time management class, improve writing skills, improve communication skills, etc. Attach a sample appraisal form showing goals or sample goals for each category (you may black out the employee name for privacy if desired).

Utilities should have goal setting processes for **all employee categories**, including:

- Operations/field employees, including lineworkers, meter readers, etc.;
- Management level employees;
- Office personnel, including engineers, administrative, and other employees; and
- Any other levels of employees

Annual reviews can fulfill the development plan requirement as long as the review incorporates defined developmental goals for the employee.

Development Plans	Points (maximum = 3)
Yes, for all employee categories	3
Yes, for 2 employee categories	2
Yes, for 1 employee category	1
No	0

C – Education, Participation and Service

Written Education Policies/Procedures/Programs (C1)

Written education policies, procedures, and/or programs can help place emphasis on employee growth within the utility. A written education policy can include tuition reimbursement for employees pursuing higher education or professional development opportunities at a trade school, college, or university. It can also cover any education programs offered internally or through a partnership with an external school or university.

Frequently communicating the scope of your utility's education policies/procedures/programs to your employees is important. A utility should communicate the policy/procedure/program upon hire and regularly throughout the year, as well as when changes are made.

A strong education policy that is regularly communicated will encourage employees to take advantage of the opportunities for professional development. In addition, a written education policy will help grow both the employee and the knowledge base of your entire utility, which can lead to higher productivity and innovative approaches within your utility. When describing how you communicate your policy/procedure/program to your employees, include the frequency of these communications along with any supporting documentation such as a memo to all employees, a note in a weekly newsletter, etc.

For full credit, a utility should communicate education policies/procedures/programs:

- upon hire;
- regularly throughout the year (on at least an annual basis); and
- when changes are made (this may happen at the time of annual performance evaluation)

Written Education Policies/Procedures/Programs	Points (maximum = 3)
Yes, with documentation provided	2

No	0
Frequency of Communication of Policy/Procedure/Program	
Upon hire **AND** regularly throughout the year **AND** when changes are made	1
2 levels of communication frequency	0.5
1 level of communication or not communicated	0

Networking and Personal/Professional Development (C2)

Attendance at conferences and workshops fosters interaction, networking capabilities, and idea-sharing. The networks formed during conferences and workshops become the glue that holds utility systems together when faced with disasters such as storms or discovering common problems in practices or equipment used throughout the industry. Whether national, regional, or local in scope, networking efforts of individual staff—based on the support of utility management—can bolster the strength of the utility's entire work force.

Utility management should encourage all levels of employees (operations/field, management/administrative, and any other utility employees) to participate in networking and personal/professional development opportunities that are local, state/regional, and national in scope. Furthermore, it is important that management ensure that a diverse representation of employees attend events; not always the same person or small group of people.

In the RP_3 application, your utility should complete the matrix to identify which types of employees are attending various networking events and personal/professional development opportunities. In a separate attachment (example spreadsheet available for download as part of application package) please provide a representative list of the different conferences/workshops (events) or development opportunities that your utility personnel and, where applicable, governing body representatives attended from October 1, 2021 to September 30, 2024. Also note which levels of employees (e.g., operations/field, management/administrative) attended during the same period.

Employees categorized as "other" should be grouped under one of the previous categories, based on Panel determination. Panel members will use the information provided by the utility on the checklist as well as the required documentation (a representative sample of events attended

and the relevant employee categories) to fill in the matrix below. For large utilities, all six boxes must be checked for full credit; medium utilities must have at least five boxes checked for full credit; and small utilities must have at least four boxes checked for full credit.For an example of how to track this, please download our sample checklist at and fill it in.

Networking and Personal/Professional Development			**Points (maximum = 2)**
Large Utility	*Medium Utility*	*Small Utility*	
6 boxes checked	5 boxes checked	4 boxes checked	2
4-5 boxes checked	3-4 boxes checked	3 boxes checked	1.5
3 boxes checked	2 boxes checked	2 boxes checked	1
1-2 boxes checked	1 box checked	1 box checked	0.5
0 boxes checked	0 boxes checked	0 boxes checked	0

Below are examples of networking, personal/professional development, and education opportunities available to public power employees.

- *Industry Conferences & Workshops*
  - APPA hosts a variety of conferences for every member of your utility staff – including legal, engineering, operations, or safety personnel. For more information or to register for any conferences or workshops listed below, visit APPA's website: http://www.PublicPower.org/appaacademy.
    - Engineering & Operations Conference, Public Power Lineworkers Rodeo, National Conference, Business & Financial Conference, Customer Connections Conference, Legal Seminar, Joint Action Agency Workshop, Legislative Rally
  - *EPRI* conferences may provide utility staff with research and development updates, especially considering the constant developments and new technology emerging in the industry.
  - *IEEE* conferences may help your utility conform to new NESC standards, which are vital to maintain the most updated safety standards and practices for your employees and customers.
- *In-house Training*

  Using in-house personnel and resources to provide staff training programs.
- *Outside Training*

Training presented by vendors, non-utility trainers, or other professionals with a knowledge of the utility industry to train on specific needs (i.e., safety practices, customer service), on the utility's premises.

- *Webinars*
    - Webinars are hosted regularly by a variety of organizations on many different subjects. This mode of learning is an excellent way to educate a large group of employees, without the costs associated with travel and lodging.
    - APPA hosts an RP3 application webinar series every year. For more information on this series, visit APPA's website: https://www.publicpower.org/rp3-how-apply.
- *Certificate or other Professional Development Programs*

  Examples include apprentice programs and professional development programs.
- *Local, regional, or national education programs*

  Includes state, regional and other courses and seminars that apply to utility organization topics.
- *User Groups*

  Includes groups that meet on a specific topic that will improve work skills or the utility's performance, such as software user groups (Maximo/Crystal Reports user groups, ESRI/GIS software user groups), metering user groups, AMI vendor user groups, or generator manufacturers user groups.
- *State association conference or workshop*

  As a member of a state association, it is always beneficial to take advantage of any development opportunities they may offer.
- *Regional association conference or workshop*

  As a member of a regional association, it is always beneficial to take advantage of any development opportunities they may offer.
- *Joint Action Agency meetings*

  Joint action agency meetings are an excellent place to discuss issues such as power supply and system planning. Developing a network to discuss these issues is vital to maintaining a reliable system.

Membership and Service (C3)

The utility industry is a vast network of individual systems operating in unison to provide electric power. In many ways this network has advantages; however, at the same time one major disadvantage is the fact that public power entities are at times overlooked, or underrepresented

in the areas of policy, engineering, certification, standardization, transmission rights, etc. Nevertheless, many of the decisions made through professional organizations such as the North American Electric Reliability Corporation (NERC), the Institute of Electrical and Electronics Engineers (IEEE), and federal agencies such the Department of Labor and the Occupational, Safety & Health Administration (DOL/OSHA), the Department of Homeland Security (DHS), the Department of Energy (DOE) and others impact the operation of every public power utility in the United States. To ensure that the voices of public power utilities are heard, and that pertinent concerns are raised during the rulemaking and standards-setting processes, public power employees should participate on committees, working groups, task forces, boards, and other state, regional, and national bodies. The ability of knowledgeable utility staff to provide input on issues that impact public power is crucial.

Furthermore, public power thrives on being a community-owned entity, so it is equally important to participate in local leadership boards and committees, as well as giving back to the community through involvement in service or volunteering efforts. This participation enhances and exemplifies the mission of public power being an active participant in the community.

Please attach representative samples of your employees' memberships in professional, community leadership, and service-based organizations. Please include name of the employee, name of the organization, and dates served. Include only electric employees and members of your utility's governing board. There is an example spreadsheet available for use and download as part of the RP_3 application package, accessible at https://www.publicpower.org/rp3-how-apply.

Membership and Service	**Points (maximum = 3)**
Yes, active membership or participation in all three categories	3
Yes, active membership or participation in two categories	2
Yes, active membership or participation in one category	1
No	0

System Improvement Section

The following is a sequential, question-by-question review of the RP_3 application's System Improvement Section. Each question in this section is explained, and the scoring rubric is outlined.

A – Research & Development

Membership and Participation in an R&D Program (A1)

Research and development at public power utilities is an essential investment, and utilities can take a leadership role by pursuing cutting-edge technology and innovation as an integral part of energy delivery. This principle is embodied in public power's commitment to invest in innovative solutions and technologies to enhance energy delivery and develop their communities. Through research, development, and demonstration of new ideas, utilities can increase efficiency, reduce costs, investigate new and better technologies and services, and improve processes and practices to better serve customers.

Public power has been a leader in supporting technology breakthroughs and providing innovative services by reinvesting a portion of resources every year into research and development. The RP_3 Panel recognizes the value of this commitment and encourages participation in a national program. This participation gives public power access to a pool of funding opportunities, and, more importantly, access to information on a variety of projects that they can review before implementing a new technology.

While it is important to be a member of a national R&D program, it is perhaps even more important to take advantage of the resources that the program offers to educate your employees and make informed system improvement decisions for your utility and community. Active participation can range from applying for grants and conducting research projects to reviewing the results of completed projects and considering the findings as they apply to your utility's operation. Examples of these resources include the DEED Project Database and DEED-published documents, which can be found on DEED's website at www.PublicPower.org/DEED, or EPRI research projects.

Participation in an R&D Program	**Points (maximum = 3)**

At least one type of participation	2
No participation	0
Membership in an R&D Program	
Yes, national membership	1
Yes, only state or regional membership	0.5
No participation	0

One example of a national R&D program is the American Public Power Association's Demonstration of Energy & Efficiency Developments (DEED) program, which is public power's own research program. APPA initiated DEED to pool members' resources to invest in future technologies and best practices in the electric industry. This program enables utilities with limited resources, from the smallest to the largest, to engage in research and development activities. For more information about DEED, visit APPA's website at www.PublicPower.org/DEED.

For proof of DEED membership, please refer to your utility's "Final Summary Report," which has been generated by RP3 Staff and can be found in the attachment section of the Utility Demographics question (0.0.0). If this report indicates that your utility is a DEED member, this will serve as sufficient evidence of your involvement and additional documentation is not required.

Another large-scale R&D program is the Electric Power Research Institute (EPRI). EPRI is the only science and technology consortium serving the entire energy industry—from energy conservation to end use—in every region of the world. For more information, visit the EPRI website at www.epri.com.

State and regional programs are unique to your utility's location. Check with your state association or joint action agency within your region to discover what R&D opportunities there may be for your utility.

B – System Maintenance and Betterment

System Maintenance (B1)

Utilities that monitor the condition and functionality across all aspects of their systems are in the best position to know when and where investment is needed. Efforts to track age, condition and

performance of system components enable the establishment of short and long-term planning goals. Such goals may be based on load growth, expected service life of units of property, depreciation schedules, etc. Written goals then provide support for adequate budgeting and achievement of system improvements, with the ultimate benefit of top-notch reliability and customer service.

Preventative maintenance has to begin with keeping records and setting inspection schedules. In this section, you should indicate the schedule for maintenance/inspection for all items on your system that your utility tests or has a maintenance schedule for. You should include a representative sample of completed maintenance or inspection records (no blank forms) for assets identified. The intent of this question is to verify that utilities are proactively inspecting the system for possible failures and addressing potential issues before they arise. A leading practice would be to demonstrate maintenance on system-wide utility assets. A utility should demonstrate that they keep records or set inspections for as many assets as are available.

System Maintenance	Points (maximum = 4)
Yes, at least 8 documented assets	4
Yes, 6-7 documented assets	3
Yes, 4-5 documented assets	2
No, or 3 or fewer documented assets	0

NOTE: Asset examples should broadly represent the entire utility (e.g., substation equipment, poles, field transformers, meters, etc.).

System Losses (B2)

Another element of system planning is to monitor system losses and have a plan or procedure to address losses. To receive credit for this question, your utility must report its system losses and specify the formula used or the method of calculating losses. Many utilities use the EIA 861 report to calculate losses, while others have in-house software that monitors system losses on a regular basis. Utility system losses typically fall between 3 and 8 percent. Here is an example formula to use for calculating system losses:

$$System\ Lossses\ (\%)\ =\ \left(\frac{Total\ Losses}{Total\ Input}\right)\ \times\ 100$$

Where:

Total Losses: The total amount of energy lost in the system, typically measured in kilowatt-hours (kWh). Losses include conductor resistance losses, transformer losses, and losses in switches, circuit breakers.

Total Input: The total amount of energy input into the system, also measured in kilowatt-hours (kWh).

Your utility must also provide a goal for your system losses to receive credit. Once you have the information about losses, it is important to dig deeper and find out how you can improve the reliability of your system. Utilities can engage in a variety of practices to lower system losses, ranging from theft prevention measures to improving operations. If a utility calculates its losses and determines that it isn't cost effective to lower losses any further, then this would also be considered addressing losses.

System Losses	**Points (maximum = 3)**
Yes, with system loss calculation	1
Yes, no system loss calculation provided **OR** No	0
System Losses Goal	
Goal provided	1
No goal provided	0
Methods Used to Lower System Losses	
At least 1 method to lower system loss checked	1
No methods checked	0

Planning Study or Analysis (B3)

It is important to perform an internal or external analysis or planning study to help evaluate the long-term needs of your utility's system infrastructure. This study or analysis, whether conducted by in-house staff or an outside consultant, is vital to determining the types of projects your system needs to be prepared to address. This analysis or study should include load forecast and capacity studies, along with other relevant aspects such as contingency analysis (e.g., alternate feed), fuse coordination/fault analysis, project identification, equipment age

analysis, land and environmental analysis (e.g., SPCC, ROW). Your utility's analysis or planning study can be conducted annually (or as an ongoing process), or it can encompass a time frame – such as a three, five, or ten-year system plan. For RP_3 purposes, a summary statement or an internal memo of the analysis or study will suffice.

This question is meant to prompt you to reflect on the following points:

- Are you conducting any internal or external analysis or planning study?
- Does your planning study or analysis address a broad scope of topics relevant to the utility's needs?
- Are you actively documenting and evaluating the results of the planning study or analysis?
- Do you have specific goals or recommendations from the study or analysis that you are actively working towards?
- Is your planning study or analysis applicable to a clearly defined timeframe?

A utility should look at its planning study and load forecast yearly even if no action is needed. If no action is needed, the utility should explain how a course of no action was determined. Even if a utility's load growth is not increasing, it is still important to proactively predict and plan for long-term needs of the utility's infrastructure.

There are three elements that must be addressed for full credit:

- Conducting an internal or external analysis or planning study
- Addressing a broad scope of topics that are relevant to the utility's needs
- Applicable to a clearly defined timeframe

Note that Load forecast and capacity studies are minimum requirements, ensuring you receive the minimum points. Additional points are awarded for including other relevant elements.

Planning Study or Analysis	**Points (maximum = 5)**
Yes, Planning study or analysis within the last 5 years and	4

at least 5 boxes including Load Forecast and Capacity Studies boxes checked	
Yes, Planning study or analysis within the last 5 years and 4 boxes including Load Forecast and Capacity Studies boxes checked	3
Yes, Planning study or analysis within the last 10 years and 3 boxes including Load Forecast and Capacity Studies boxes checked	2
Yes, Planning study or analysis within the past 10 years with Load Forecast and Capacity Studies boxes checked	1
No	0
Time Frame	
Study time frame covers current application cycle	1
No	0

C - Financial Health

Near-Term Capital and O&M Projects (C1)

Public power utilities prioritize achieving high reliability while maintaining low electricity costs for their consumers. To accomplish this balance, each year the utility must decide on which projects should be undertaken in the near-term for system maintenance and improvement. The RP_3 Review Panel evaluates this question to ensure that your utility is being proactive in making proper near-term decisions for your system.

The Panel evaluates projects completed in the past two years and those planned for the next two years (this may include the current application year). The documentation must demonstrate **both** ongoing and active system improvement efforts and proactive planning for the future to

receive full credit. To view examples of near-term capital and O&M projects, visit the RP3 resources page or click here.

In your documentation, please include your utility's formal capital improvement plan, along with detailed descriptions of projects and funding breakdowns for the past two years and the next two years. You can also include a capital operations and maintenance budget with brief descriptions of each project. A spreadsheet or budget sheet will suffice for this question only if it provides project names and costs along with clear descriptions of what each project will cover.

There are three elements that must be addressed for full credit:

- A clear actual budget or funding breakdown
- Detailed descriptions of projects that have been or will be conducted
- Scope of projects is within the designated timeframe (past two years and next two years)

If no formal capital improvement plan exists, you must provide a write-up similar to what would be submitted to your utility and city board or council for approval to inform them of projects to be completed in the current budget year. The write-up for each capital improvement item should include detailed project descriptions, costs, and budgets for the past two years and the next two years.The Panel understands that some utilities may only engage in a few projects within such a timeframe. In such cases, it is important for utilities to provide as much information regarding the chosen projects and their associated funding breakdowns as possible.

Projects that are in the utility’s near-term goals should be included in this response, including current projects that may be outside of the designated timeframe. For example, a SCADA system upgrade that was started 3 years ago but will be completed in the next year. Do not include projects that are scheduled far into the future, such as a distribution rebuild project that will begin in 5 years.

Near-term capital and O&M projects can be demonstrated by documentation of amounts, types, and costs of equipment upgrades. Examples include:

- Distribution line extensions, replacements, or upgrades
- Substation projects (new installation or upgrades)
- Transmission replacements or extensions

- Upgrades to utility software/hardware
- Equipment upgrades (trucks, buildings, etc.)
- Reconductoring projects
- General maintenance
-

Near-Term Capital and O&M Projects	Points (maximum = 4)
3 elements covered: Includes clear actual budget or funding breakdown, detailed descriptions of projects, and is within the specified timeframe (past 2 years and next 2 years)	4
2 elements covered: Includes funding source, dollars (actual or forecast), and description	2
1 element covered	1
No	0

Customer-Owned Distributed Energy Resources (C2)

Today's energy landscape is changing rapidly. An increasing number of customers are choosing to invest in distributed energy resources by purchasing their own electricity generators, such as wind turbines and photovoltaic panels (solar power), while remaining dependent on and connected to the electric grid.

When new generating equipment is connected to the grid, creating a two-way flow of electricity, a utility must consider potential impacts to their distribution system and operational infrastructure.

Utilities should develop policies or procedures to ensure its operational soundness and safety. Line workers, engineers, and other utility employees should be trained to understand the possible impact of distributed energy (including the potential for unintentional islanding) to ensure power quality and system safety is optimized. In addition, utilities should ensure benevolent grid behavior, communication and interoperability from generating equipment and owners through measures, such as interconnection agreements.

If available, an attached Interconnection Agreement is encouraged, as these documents often address safety and power quality issues. Requirements, recommendations, and best practices for establishing standardized interconnection of DER can be found in IEEE 1547.

Customer-Owned Distributed Energy Resources	**Points (maximum = 3)**
Yes, Interconnection Agreement complies with IEEE 1547 or 3 boxes checked	3
Yes, 2 boxes checked	2
Yes, 1 box checked	1
No	0

NOTE: "Other" checkbox may be counted as multiple boxes checked if multiple items are listed.

Financial Health Policy or Procedure (C3)

Ensuring financial health and stability is an essential component of being a reliable public power provider. In a time when distributed energy is gaining popularity and new government policies and regulations are emerging, utilities should have a policy or procedure in place to address emerging financial concerns. Managing your utility's financial ratios provides an assessment of your utility's financial status and can identify areas that might need attention in the future. Some example ratios include a utility's current ratio for assets to liabilities, its debt-to-asset ratio, or net profit margin.

Other procedures in addressing your utility's financial health include establishing a cash reserve policy and routinely conducting cost of service studies. If your utility routinely conducts a cost-of-service study, the leading practice is to conduct a cost-of-service study at least once every 5 years. Conducting an annual rate of return calculation is also considered a leading practice in ensuring financial stability. To receive full points, your utility must implement at least two additional practices alongside the annual rate of return calculation or a cost-of-service study within 5 years.

Financial Health Policy or Procedure	**Points (maximum = 3)**

Yes, 2 additional boxes checked, alongside a rate of return calculation or a cost-of-service study	2
Yes, 1 additional box checked, alongside a rate of return calculation or a cost-of-service study	1
No	0
Routine cost of service study OR rate of return calculation	
Performed within the last 5 years	1
Performed over 5 years ago	0

NOTE: “Other” checkbox may be counted as multiple boxes checked if multiple items are listed.

RP_3 Scoring Criteria Summary

Criteria Area	Section	Question	Subject of Question	Maximum Point Value
Reliability 25%	A - Reliability Indices Collection	A1	Monitoring and Tracking Reliability Data	2
		A2	Reliability Statistic Tracking	3
	B - Reliability Indices Use	B1	Use of Service Reliability Indices	4
		B2	National Reliability Benchmarking	2
	C - Mutual Aid	C1	National Mutual Aid Agreement	3
	D - Disaster Plan	D1	Utility Disaster Plan	4
		D2	Disaster Drills	1
	E and F - Physical Infrastructure and Cyber Security	E1	Physical Infrastructure Security	3
		F1	Cyber Security Policy or Procedure	1
		F2	Cyber Security Awareness	1
		F3	Periodic Cyber Security Assessments	1
Safety 25%	A - Safety Manual	A1	Use of a Safety Manual	4
		A2	Directive to Use, Read, and Understand the Safety Manual	1
	B - Safe Work Practices	B1	Regular Safety Meetings	4
		B2	Policy or Practice for Safety Rule Enforcement	1
		B3	Documented Job Briefings	3
		B4	Job Site Inspections	2
		B5	Safety Orientation Practice or Procedure	1
		B6	Accident Investigation/Near Miss Reports	2
		B7	Annual Refresher Training for OSHA-type Issues	2
		B8	Automated External Defibrillators	1
		B9	Arc Hazard Assessment	2
	C - Benchmarking	C1	National Safety Index Benchmarking	2

RP_3 Scoring Criteria Summary (continued)

Criteria Area	Section	Question	Subject of Question	Maximum Point Value
Workforce Development 25%	A – Succession Planning and Recruitment	A1	Demographics	3
		A2	Knowledge Management	5
		A3	Employee Recruitment	2.5
		A4	Employee Retention	2.5
		A5	Compensation and Salary Benchmarking	1
	B – Employee Development and Recognition	B1	Goal Setting Procedures	3
	C – Education, Participation and Service	C1	Written Education Policies/Procedures/ Programs	3
		C2	Networking and Personal/Professional Development	2
		C3	Membership and Service	3
System Improvement 25%	A – Research & Development	A1	Membership and Participation in an R&D Program	3
	B – System Maintenance and Betterment	B1	System Maintenance	4
		B2	System Losses	3
		B3	Planning Study or Analysis	5
	C – Financial Health	C1	Near-Term Capital and O&M Projects	4
		C2	Customer-Owned Distributed Energy Resources	3
		C3	Financial Health Policy or Procedure	3

Appendix A: APPA Resources

The American Public Power Association has several publications and products that could contribute to achieving and maintaining RP_3 status. For a detailed description of these items please visit APPA's RP3: How to Apply webpage or contact APPA staff at RP3@PublicPower.org.

Appendix B: Reliability Index Calculations

1. *System Average Interruption Duration Index (SAIDI)*: Measures the total interruption duration for the average customer.

$$\frac{\sum No.\,of\ Customers\ Interrupted \times Outage\ Duration\ in\ Minutes}{Total\ No.\,of\ Customers\ Served}$$

$$SAIDI = \frac{\sum Customer\ Interruption\ Duratons}{Total\ No.\,of\ Customers\ Served}$$

2. *Customer Average Interruption Duration Index (CAIDI)*: Measures the average interruption duration for those customers interrupted during the year.

$$\frac{\sum No.\,of\ Customers\ Interrupted \times Outage\ Duration\ in\ Minutes}{Total\ No.\,of\ Customers\ Interrupted}$$

$$CAIDI = \frac{\sum Customer\ Interruption\ Durations}{Total\ No.\,of\ Customers\ Interrupted}$$

3. *Average Service Availability Index (ASAI)*: Represents the fraction of time (often in percentage) that an average customer has received power during a predefined period of time (typically a year).

$$ASAI = \frac{Customer\ Hours\ of\ Available\ Service}{Customer\ Service\ Hours\ Demanded}$$

4. *Momentary Average Interruption Frequency Index (MAIFI)*: Represents the average frequency of momentary customer interruptions (usually less than a 5 minute limit) divided by the total number of customers served.

$$MAIFI = \frac{Total\ No.\,Customer\ Interruptions\ (Momentary)}{Total\ Number\ of\ Customers\ Served}$$

5. *System Average Interruption Frequency Index (SAIFI)*: This index is defined as the average number of times that a typical customer is interrupted during a specific time period. SAIFI is determined by dividing the total number of customers interrupted in a time period by the average number of customers served. The resulting unit is "average number of interruptions per customer."

$$SAIFI = \frac{Total\ Number\ of\ Customers\ Interrupted}{Total\ Number\ of\ Customers\ Served}$$

6. *System Losses:* Defined as the amount of energy lost during generation, transmission, and distribution of electricity, including plant and unaccounted for use. This is calculated on line 15 of the EIA 861 in % form and boils down to amount received vs. amount sold.

$$Total\ Energy\ Losses = (Total\ Sources) - (Sales\ to\ Ultimate\ Customers + Sales\ for\ Resale + Energy\ Furnished\ Without\ Charge + Energy\ Consumed\ by\ Respondent\ without\ Charge)$$

Appendix C: Sample Safety Directive

This is a sample email from a Public Utilities General Manager to all utility employees.

To: Staff
From: General Manager

Subject: Safety Accident Prevention Manual

No aspect of our Utility is of greater importance than accident prevention and preservation of health. The Public Utilities Safety Manual addresses safe practice for every utility employee and adherence to the rules are required.

The current edition of the manual can be found on the intranet at this link: [website here] and is attached in PDF format as well. A revised 2024 edition is pending final review by the join safety committee and will be published shortly.

All managers are directed to ensure that an effective review of the manual's sections that applies to each employee's area of work be conducted on a recurring annual basis, and when revisions are published. This review shall be incorporated as part of each section's regularly scheduled safety/staff meetings.

If you have questions or require clarification regarding any of the policies or rules contained in the manual, please direct them to your supervisor, the Safety Committee Chairperson, or to the Interim Safety Manager.

Thank you for your understanding that compliance to these safety practices are an essential part of the health, strength and success of [utility name here].

[Name]
General Manager
[Utility Name]