BPA Policy 330-1

Centralized Research, Development and Demonstration

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1. Purpose & Background

BPA's Core Values include Trustworthy stewardship; as stewards of the Federal Columbia River Power System (FCRPS) we are entrusted with the responsibility to manage resources of great value for the benefit of others. The purpose of this policy is to establish programmatic requirements for BPA's research, development, and demonstration (RD&D) projects to support continued improvement in the efficient and effective operation of the FCRPS as opportunities become available through new technology.

BPA's Federated approach to RD&D of new technology requires the organizations that are responsible for the efficient and effective operation of the FCRPS to identify their RD&D projects and a centralized reporting and program management function to provide a single, consistent view of BPA's RD&D efforts.

BPA's Technology Innovation Office (TI Office) is established to perform the centralized reporting and program management function for all BPA RD&D activities. It serves as a hub of innovation and a centralized point for RD&D program management. It facilitates the development and implementation of technology-based solutions to business challenges by managing an RD&D program maximizing the benefits of internal expertise and external collaborations.

2. Policy Owner

The Chief Workforce and Strategy Officer is the owner of this policy.

The Technology Innovation Director has overall responsibility for this policy and is also responsible for determining the appropriate resolution of any conflicts that may arise during this policy's implementation.

3. Applicability

This policy applies to all RD&D projects and activities in BPA supporting the efficient and effective operation of the FCRPS.

4. Terms & Definitions

A. **Research, Development and Demonstration (RD&D)**: Activities undertaken to discover and implement new principles, techniques, and technologies.

B. **Participating Organization:** Any BPA organization that conducts RD&D activities. All research activities are managed through BPA's Technology Innovation Office.

C. **Technology Innovation:** The introduction of new things or methods towards the use of technical means to support the improvement of BPA's ability to fulfill its mission.

D. **RD&D Project:** A project that is undertaken to discover and implement new **principles**, techniques, or technologies at BPA. Projects related to techniques or technologies on established technologies (e.g. market research, evaluations, resource planning, and commercially available technologies) are out of scope for this policy.

5. Policy

Research, Development and Demonstration (RD&D) of innovative new technologies to support BPA's operations is essential to maximizing the value of the FCRPS and fulfilling BPA's mission, in general. In support of BPA's pursuit of new technologies, all RD&D of new technology to support BPA's ability to fulfill its mission will be conducted under the following requirements:

A. BPA's strategic direction drives priorities for BPA's RD&D Projects.

1. Senior Executives, including but not limited to, the Senior Vice Presidents of Power and Transmission set priorities for BPA's RD&D Projects through a research prioritization process.

2. All RD&D Projects must demonstrate a clear alignment with BPA's strategic plan and be consistent with BPA's strategic priorities. RD&D Priority is given to projects that also align with Senior Executive Research Priorities.

3. All RD&D Projects must demonstrate a net benefit to BPA through business justification review and approval, as described in Section 5.C of this policy, or other applicable programmatic review and approval.

B. Centralization of RD&D projects

1. BPA will establish and maintain a centralized monitoring and reporting system to support all RD&D activities, The TI Office has a staff of experts in research management that combine theory, experience, and best practices to oversee a disciplined approach for managing portfolios of RD&D Projects.

   a) Other BPA business functions have similar staff of experts to represent RD&D activities.

2. The TI Office manages the centralized Repository of all RD&D projects (Repository) in which BPA participates.

   a) The TI Office is the official source for all reporting on the portfolio of RD&D projects across all business functions that manage RD&D projects.

   b) Organizations that conduct RD&D outside of the portfolio managed by the TI Office are required to register their RD&D projects in the Repository.

    c) The TI Office responds to inquiries regarding all BPA RD&D projects and tracks and responds to any potential questions regarding research and project outcomes. Questions and responses are documented and retained as part of a comprehensive RD&D program.

C. **Organizations identify projects for RD&D**: Any BPA organization can conduct RD&D projects. RD&D projects will be identified by the participating organization. For proposed projects to be established as RD&D projects, the following requirements must be met:

1. All RD&D identified projects require a sponsor who provides a disposition on the business justification.

2. A justification will be developed that shows a clear connection to BPA's strategic plan and strategic priorities.

D. **The Bonneville Environmental Foundation:** BPA's Power Services organization provides funding for the Bonneville Environmental Foundation (BEF), as determined in the BEF contract, to exercise BPA's authority to encourage the development of renewable resources and promote the development of experimental RD&D Projects with due consideration for environmental quality, including the protection, mitigation, and enhancement of fish and wildlife habitat.

1. The TI Office is the designated Staff Liaison and is responsible for assisting the BPA Administrator, serving the role of principal liaison, in representing BPA's interests.

2. The use of funds provided by BPA must complement BPA's programs in support of BPA's mission.

E. **Projects funded within the TI Program**; BPA will establish funding for RD&D projects through a "pay to play" funding budget. Also, the TI Office will maintain an operating year budget for executing a limited number of RD&D projects above embedded costs.

1. **Using budget from Participating Organizations**: If research needs are identified that exceed the TI Office's operating year budget, the participating organizations can fund additional RD&D projects by prioritizing these projects over other budgeted activities, consistent with sound business principles.

2. Assignment of funds by participating organizations to support RD&D projects must be consistent with the BPA Finance organization's policies and budgeting processes.

6. Policy Exceptions

Projects related to techniques or technologies on established technologies (e.g. market research, evaluations, resource planning, and commercially available technologies) are out of scope for this policy.

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7. Responsibilities

A. **Technology Innovation Office (TI Office)**: the TI Office is responsible for the following:

1. The TI Office manages a centralized Repository of all RD&D projects (Repository) that in which BPA participates.

2. The TI Office is the official source for all reporting on the portfolio of RD&D projects. Organizations that conduct RD&D outside of the portfolio managed by the TI Office are required to register their RD&D projects in the Repository.

3. The TI Office is responsible for responding to all questions regarding research and project outcomes. Responses are documented and retained as part of a comprehensive RD&D program.

4. The TI Office is responsible for gathering and disseminating information on industry technology trends. This includes creating both short- and long-term research landscapes. Similar to RD&D projects, efforts to create a research landscape may occur in other BPA organizations, but the responsibility for compiling the information resides with the TI Office.

5. When RD&D activity in BPA allows, the TI Office staff participates in other activities that support BPA's strategic priorities.

B. **Designated Sponsors**: The designated Sponsors are responsible for the following:

1. Ensuring that there is adequate authority to approve and sponsor RD&D projects,

2. Ensuring that they register their RD&D projects in the Repository,

3. Approving the business justification for the RD&D project, and

4. Ensuring there is an approved funding source for an RD&D project.

C. **TI Liaisons**: For projects managed within the TI Program, the TI Liaisons are responsible for working with the TI Office and subject matter experts to develop the Business Cases with consideration to budget, resources, strategic alignment, and potential research partners.

D. **TI Program Managers**: For projects managed within the TI Program, the TI Program Managers together with TI Management and Program Analysts are responsible for managing all approved RD&D portfolio projects and leading technology transfer-related and application-related activities.

8. Standards & Procedures

A. Project management requirements and best practices

B. **Reporting and communication of all RD&D projects**: Reporting and communicating on all RD&D projects is developed and conducted by the TI Office using the following requirements:

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a) Reports provide a consistent, professional programmatic view of all of BPA's RD&D project results, consistent with project management reporting requirements, as defined and described in the SharePoint Folder – *Project Requirements and Best Practices.* Reporting on all RD&D projects employs a uniform and centralized method of communicating results and their alignment to BPA's strategic plan and strategic priorities.

b) All RD&D projects are represented in the reporting on BPA's portfolio of RD&D projects by the TI Office.

c) The TI Office is the only recognized source for information on BPA's portfolio of RD&D projects.

C. **All RD&D projects use proper project management methods**: All RD&D projects employ project management principles and requirements and apply project management tools and techniques.

1. All RD&D projects are documented to support the following activities:

   a) Contract and budget management

   b) Monthly project updates

   c) Lead stage gate decision making and coordination with stakeholders

   d) Lead TI program reviews with BPA Executives.

   e) Lead technology transfer and application activities with stakeholders

2. All RD&D projects are managed and reported on in a manner that is defined and described in the SharePoint Site – *Project Requirements and Best Practices* located on the Technology Innovation site.

9. Performance & Monitoring

The Technology Innovation Director is responsible for monitoring this policy for compliance, and reporting compliance activities and audit/review findings to the Chief Workforce and Strategy Officer.

Performance and monitoring of RD&D projects and activities will include the following reporting:

A. An annual performance report will be presented to the Enterprise Board. The content of the report will be reviewed and approved by the Sponsoring Executives prior to the presentation.

B. The TI Program Managers together with TI Management and Program Analysts are responsible for providing a monthly status report on all RD&D projects to impacted stakeholders, including BPA executives and Sponsoring Executives.

Reporting is further defined and described in detail in the Shape Point Folder – *Project Management Requirements and Best Practices,* located on the Technology Innovation site.

10. Authorities & References

A. Bonneville Environmental Foundation Contract – 11EO – 40087, Amendment 2, 9/30/2023

B. Executive Order 12881, *Establishment of the National Science and Technology Council* (11/23/1993)

C. 16 USC § 838, 1980, Pacific Northwest Electric Power Planning and Conservation Act

D. 16 USC § 839, 1974, Federal Columbia River Transmission System Act

11. Review

This policy will be reviewed at the discretion of the Policy Owner or every five years, whichever is sooner.

The TI staff is responsible for the review and revision, of this policy.

12. Revision History

Version Number	Issue Date	Brief Description of Change or Review
1.0	01/01/2023	Initial Policy
2.0	06/28/2024	Minor Administrative changes.