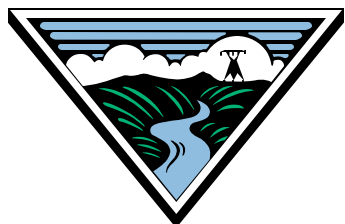


# WSU | PNNL AGI Industry Days



*Judith Estep*

*Date: August 31, 2021*

*[www.bpa.gov/ti](http://www.bpa.gov/ti)*

# Technology Innovation

## Value to Ratepayers

### *Sharing costs to increase value*

- Collaboratively participate in projects that are aligned with the BPA Strategic Plan and have the potential to improve operations, solve challenges, increase efficiencies and avoid costs.
- Efficient leverage of resources

## The BPA Research Agenda

### *Centralized Research, Development and Demonstration (RD&D)*

- TI engages with organizations throughout the Agency to develop **Research Priorities** that identify critical technology needs. Together with **Research Principles**, they set the parameters of the BPA Research Agenda and guide the project selection process.

## Developing New Projects

- ✓ **Business Line Driven** – projects are championed by engaged business line SME, vetted for benefit to BPA, and executive sponsor approved.
- ✓ **Continuous Review Cycle** – projects can be proposed, reviewed, and approved to start at any time during the FY.
- ✓ **Streamlined project initiation & reviews** to reduce FTE overhead, increase SME and executive sponsor engagement, and align with agency goals.
- ✓ **Transparency of Project Funding** – monthly reporting of financial health; **High value to cost ratio**

## Approach to Technology Transfer

### *A clear path to application*

#### Project Initiation

Clearly defined value and articulated benefit to BPA or customers and stakeholders

#### Project Administration

Active management of deliverables, project updates, and stakeholder engagement

#### Project Application

Ensuring project deliverables are operationalized

# Research Principles

- *Establish clear alignment to Agency or Business Line strategic objectives*
- *Clear sponsorship within the Agency*
- *Maximize Value-to-Cost ratio by seeking partnerships and collaborations where appropriate*
- *Clear path to implementation or value delivery*
- *Avoid primary research unless driven by business need*

# Research Priorities

## ▣ Hydro Assets

Hydropower Fish Screen Impacts

Hydropower Environmental Acceptable Lubricants (EALs)

Hydropower modeling, testing & monitoring turbine fish passage performance

Hydropower oil-free Kaplan turbine technology development & confirmation

Hydropower machine condition monitoring & condition assessment

Hydropower Cavitation Damage Repair

## ▣ IT, Comm, Cyber

Operational Technology - Threat Detection

## ▣ Transmission

Geomagnetic Disruptions

Seismic - Tower Fragility/Conductor Configurations

Seismic - Tower Placement

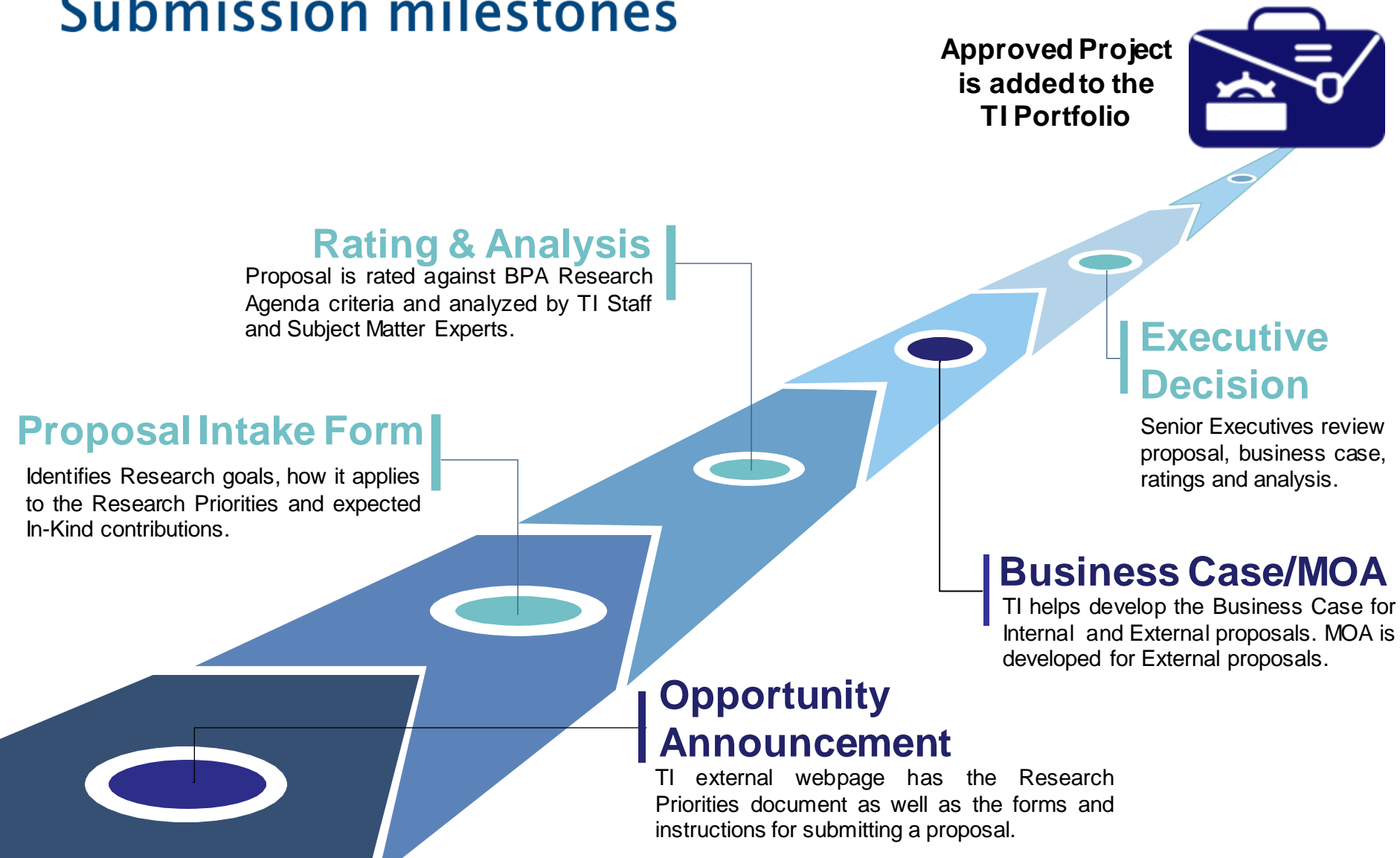
Transmission Probabilistic Planning

Transmission Real-time Modeling

Transmission Situational Awareness - Wildfire

Artificial Intelligence - warn/alert/advise

# Submission milestones



**Approved Project  
is added to the  
TI Portfolio**



## Rating & Analysis

Proposal is rated against BPA Research Agenda criteria and analyzed by TI Staff and Subject Matter Experts.

## Executive Decision

Senior Executives review proposal, business case, ratings and analysis.

## Business Case/MOA

TI helps develop the Business Case for Internal and External proposals. MOA is developed for External proposals.

## Opportunity Announcement

TI external webpage has the Research Priorities document as well as the forms and instructions for submitting a proposal.

## Proposal Intake Form

Identifies Research goals, how it applies to the Research Priorities and expected In-Kind contributions.