

Performance Assurance *for* Utility Energy Service Contracts (UESCs)

Performance-focused Project Development



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Performance Matters

- Imagine great friends, incredible views, perfect weather, ... 9% grades!
- When our gear is maintained, it's all about our own performance



Welcome to Colorado



What Is Performance Assurance?

Simply put, after knowing how to ride your bike

- It's knowing how to operate your gears and your brakes
- It's having safety equipment and using it
- And it's doing a check before riding and doing necessary maintenance, tuning, and repairs after you ride

Now let's consider performance for energy projects.



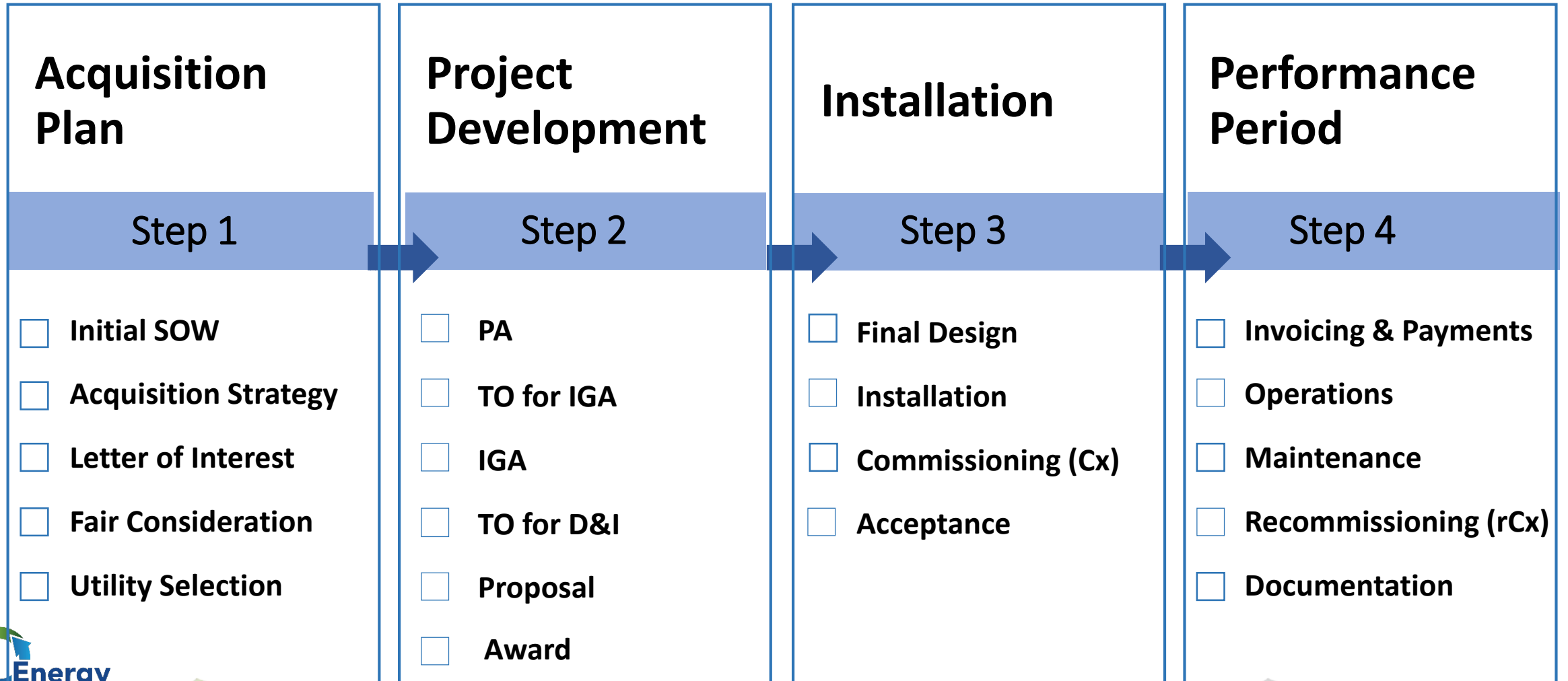
What Is a Utility Energy Service Contract (UESC)?

- **Authorized by 42 U.S.C. § 8256**
- A UESC is a contract between a serving utility and the Federal government for energy and water efficiency improvements and demand-reduction services
- **UESC projects should include a plan for sustaining ECM performance**

DOD: 10 U.S.C. § 2913 (energy) and 10 U.S.C. § 2866 (water conservation)



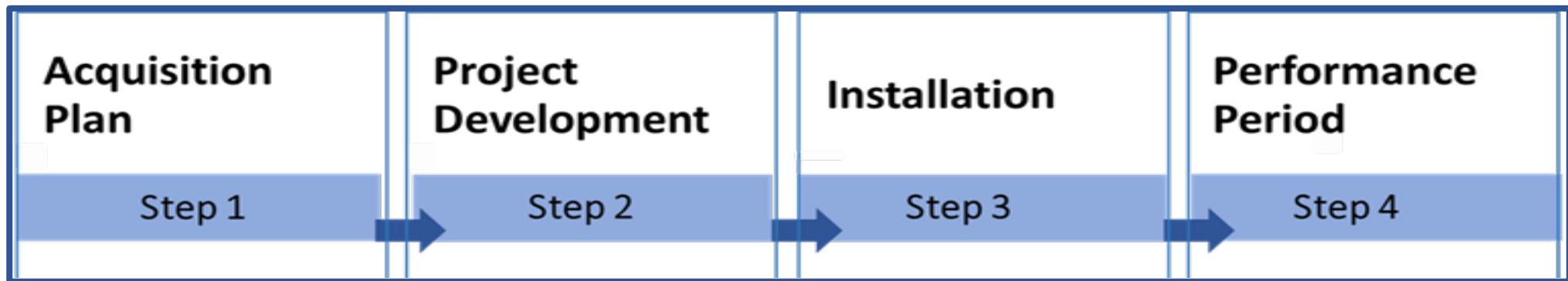
UESC Project Lifecycle



The progression of planning, developing, installing, and sustaining project measures.



Where along the project's lifecycle will we focus our efforts to ensure optimal performance?



To achieve and sustain optimal performance, plan and act during each stage of the life of your project.



What Is a Performance Assurance Plan?

- A project-specific, actionable set of protocols
 - Inclusive of operations, maintenance, training, and commissioning
 - That addresses performance requirements for each project phase



Why Develop and Use a Performance Plan?

42 U.S.C. § 8253 Energy Management Requirements

- **Ensure equipment and controls are fully commissioned at acceptance to be operating at design specifications**
- **Ensure a plan for appropriate operations, maintenance, and repair is in place at acceptance and is followed**
- **Ensure sustained equipment and system performance**



Performance – Acquisition Planning

Identify requirements
Implementation options

Operable
Maintainable
Sustainable

**Acquisition
planning**

Project
development



Performance
period

Installation



Operate
Maintain
Recommission

Installation
Commissioning
Training

Performance Strategy

- **Require a dedicated and experienced Cx agent**
- **Require quality assurance for all project phases**
- **Require comprehensive training**
- **Use existing agency documents, e.g., maintenance sheets, acceptance checklist**



Preliminary Assessment – Retrocommissioning

- **Identify opportunities to optimize performance, e.g., control systems that support continuous Cx**
- **Identify issues such as simultaneous heating and cooling**



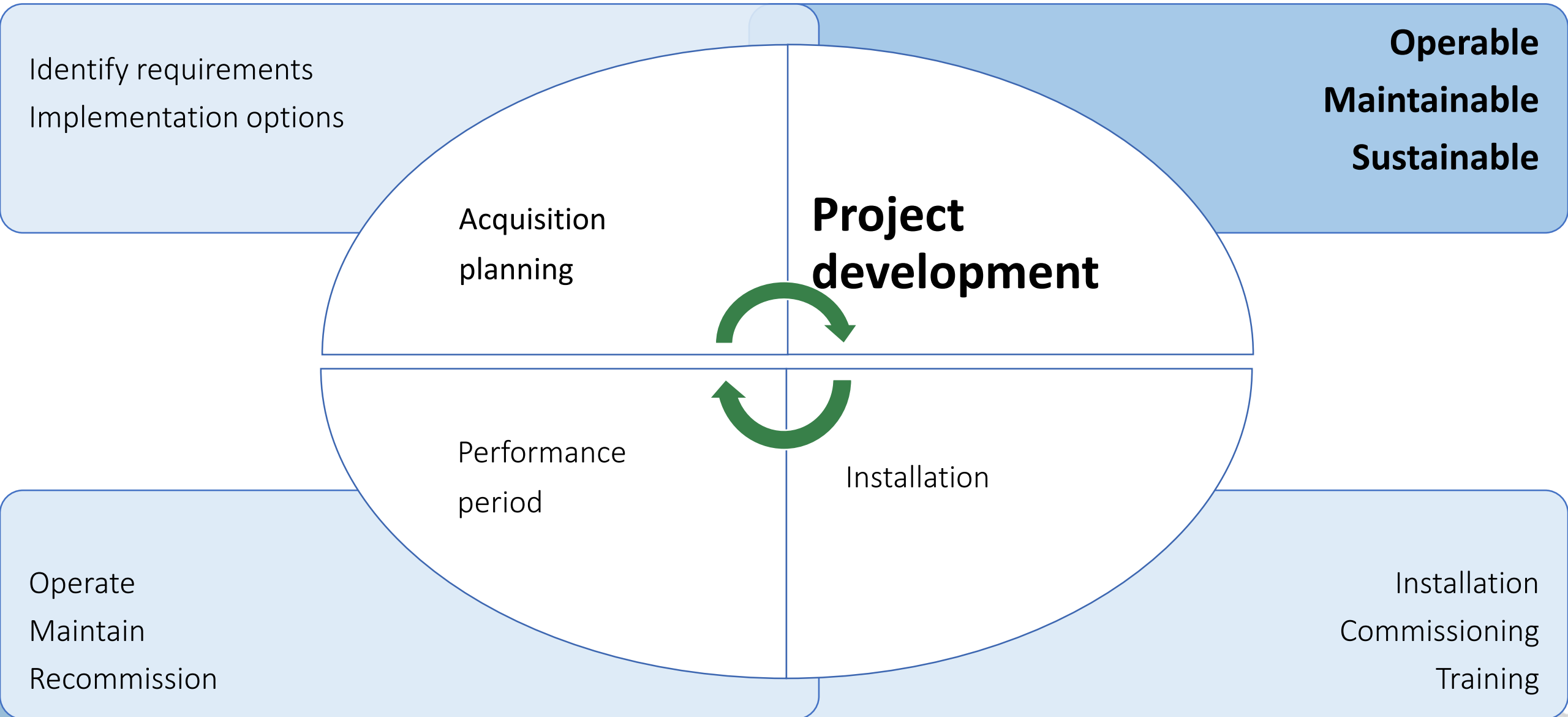
Comprehensive Training

Prepare agency staff to proficiently operate, maintain, evaluate, and document performance of each ECM.

- Project specific, detailed, written, and hands-on
- ECM specific operations and maintenance
- Cx protocol with performance evaluation templates



Performance – Project Development



Performance-Focused Project Development

- **Design**

- Buildable and maintainable
- With ECM-specific performance metrics

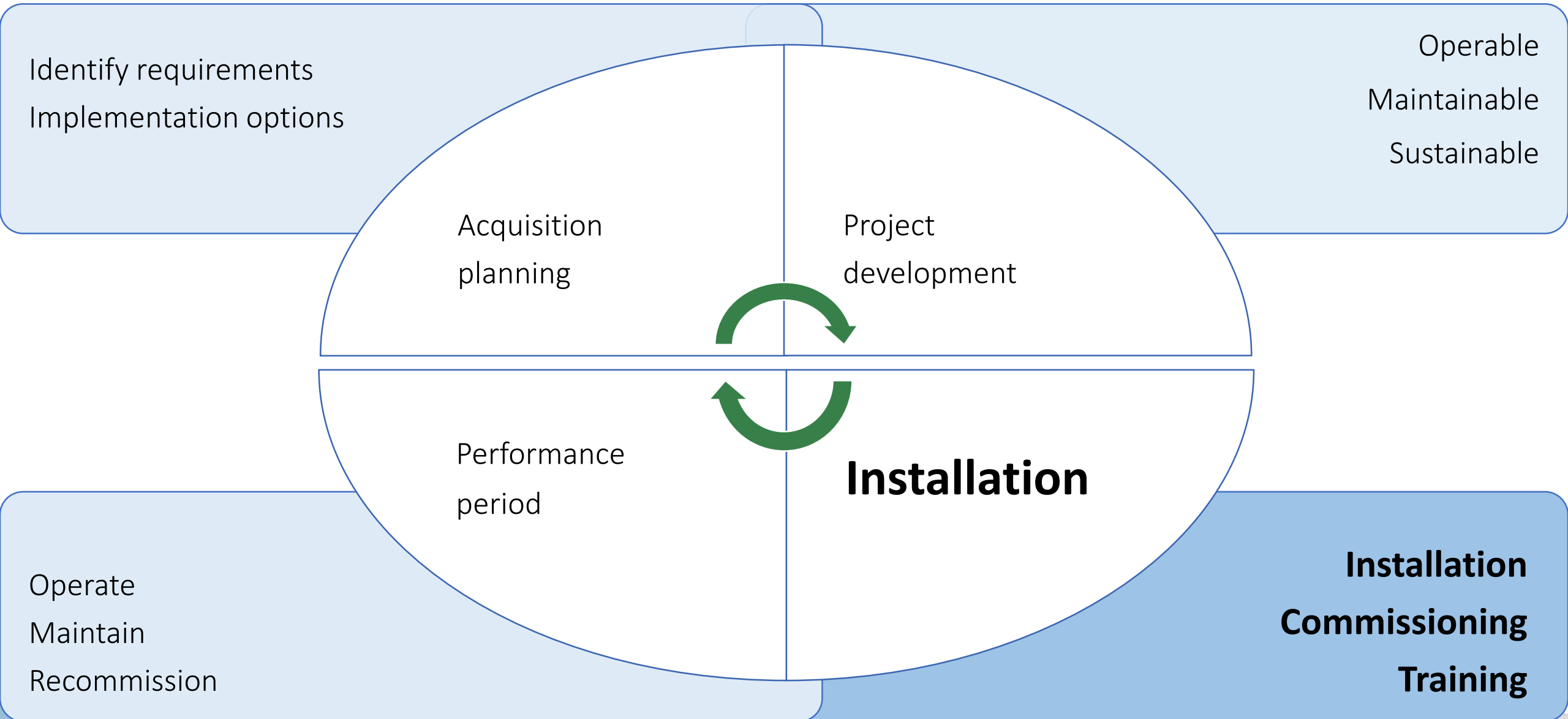
- **Baseline**

- Complete and accurate

- **Performance Plan**



Performance – Installation



Performance – Installation through Acceptance

- **Installation**

- Quality and functionality; meets operational specifications

- **Prove and document performance**

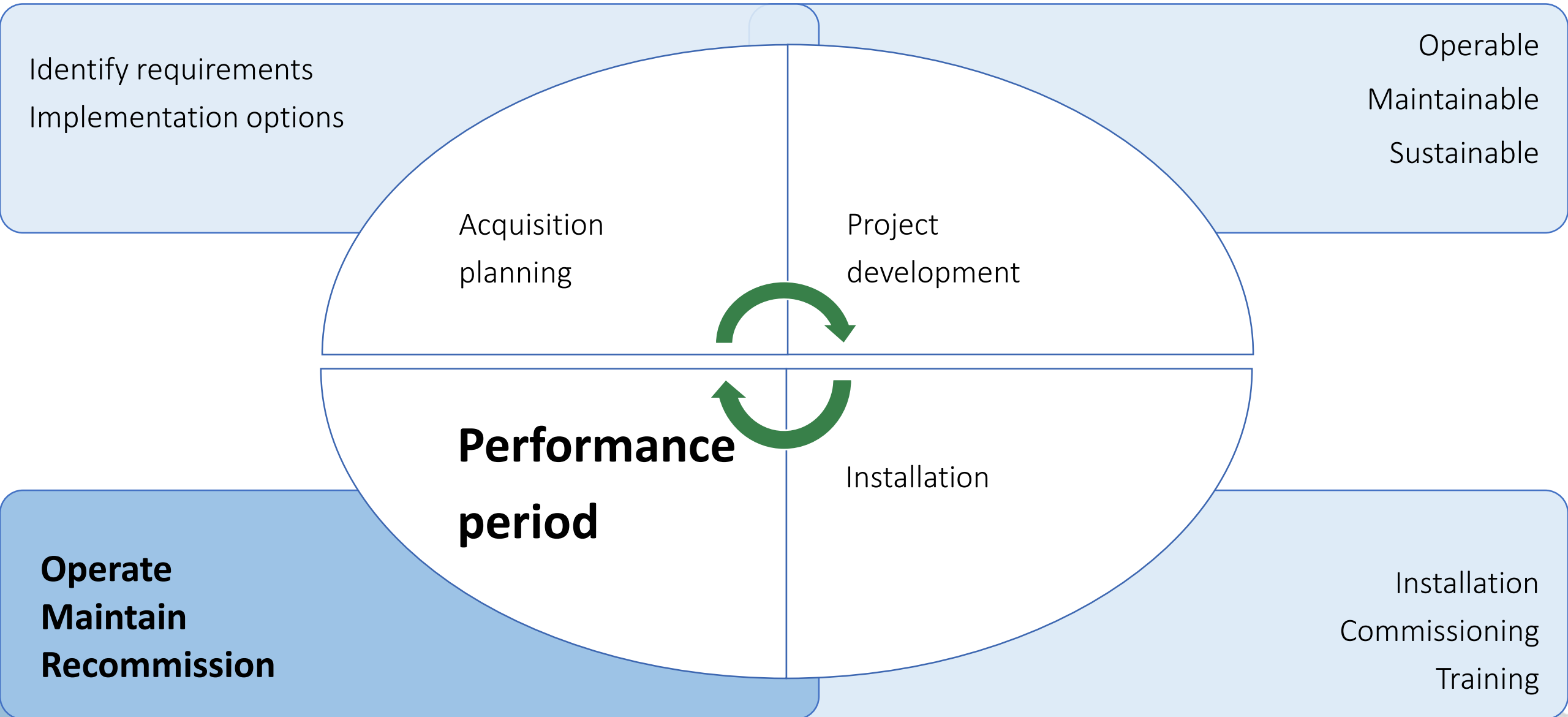
- Cx; performance meets stated metrics

- **Comprehensive Training**

- Covering Cx, O&M, and rCx



Performance – Performance Period



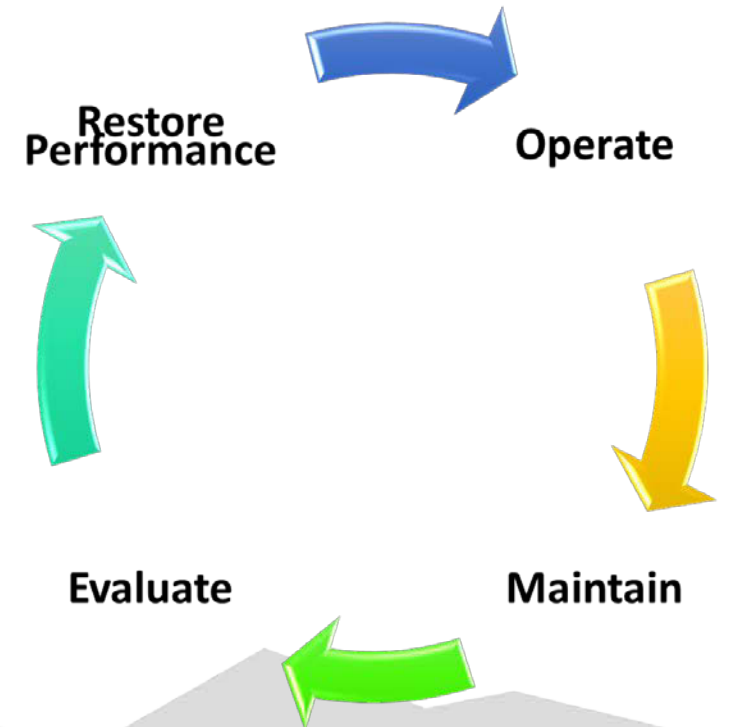
Performance through Contract Close-Out

- **The longest period in the project's lifecycle**
- **Self-implement or contract for performance period services**
 - Operations
 - Maintenance
 - rCx



Why Include Performance Assurance?

- Prepare Agency staff
- Provide actionable activities, schedules, and metrics essential to operations, maintenance, and rCx





Performance is fundamental to achieving projected savings

FEMP UESC Performance Resources

Performance planning for UESC projects

https://www.energy.gov/sites/prod/files/2019/02/f59/uesc_performance_assurance_planning.pdf

UESC project development report template

https://www.energy.gov/sites/prod/files/2019/02/f60/uesc_proj_dev_draft.docx

Notice

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