DOE OFFICE OF INDIAN ENERGY

The Five-Step Process Framework for Project Development
Project Development Process: What Is It?

• Framework based on experience
• Focuses on key decision points
• Shows that project development is iterative
• Emphasizes that delaying or deciding against a project that does not meet current goals is a viable outcome and option
Project Uncertainty/Capitol at Risk

Investment

Unknows

Revenue pays off invested $

Step 1, Step 2, Step 3

Step 4

Step 5
1 Potential

2 Options

3 Refinement

4 Implementation

5 Operations & Maintenance

PROJECT POTENTIAL: Data Collection and Opportunity Assessment

Council Check-in

Comprehensive Energy Plan

Council Check-in

Project Development and Financing Strategy

PROJECT OPTIONS: Strategy and Detail

Council Check-in

PROJECT REFINEMENT: Planning and Development

Council Check-in

PROJECT IMPLEMENTATION: Financing and Construction

Council Check-in

PROJECT OPERATIONS AND MAINTENANCE
### Purpose:
Determine whether basic elements for a successful project are in place

### Tasks:
1. Identify possible **sites** for project locations
2. Determine the **energy load/demand** for these sites using past electric bills for these facilities
3. Confirm renewable energy **resource**
4. Review tribal facility electric cost data, regulations, and transmission and interconnection requirements
5. Evaluate community market potential for renewable sales. **Your community is the marketplace/energy-user.**
6. Assemble or communicate with the right team—those in positions or with knowledge to facilitate, approve, and champion the project
1 Potential

3 Refinement

4 Implementation

5 Operations & Maintenance

2 Options

1 PROJECT POTENTIAL: Data Collection and Opportunity Assessment

2 PROJECT OPTIONS: Strategy and Detail

3 PROJECT REFINEMENT: Planning and Development

4 PROJECT IMPLEMENTATION: Financing and Construction

5 PROJECT OPERATIONS AND MAINTENANCE

Comprehensive Energy Plan

Project Development and Financing Strategy
Step 2: Roles, Business Structures, & Regulatory Considerations

Purpose: Determine ownership structure and permitting considerations if any. (Note: It is likely that internal tribal permitting is required if developed on tribal lands, however, state and federal permitting may be required if the Tribe is dealing with fee or trust land outside the tribal land holdings.)

Tasks:
1. Understand tribal role(s) and risk allocations/business structure
2. Identify permitting needs and site use considerations
3. Identify interconnection rules and net metering options with the local utility

Outputs:
1. Clarify tribal roles
2. Decide on business structure
3. Understand the permit needs and process
4. Understand interconnection and net-metering options
3 Refinement

1 Potential
2 Options
4 Implementation
5 Operations & Maintenance

1 PROJECT POTENTIAL: Data Collection and Opportunity Assessment
2 PROJECT OPTIONS: Strategy and Detail
3 PROJECT REFINEMENT: Planning and Development
4 PROJECT IMPLEMENTATION: Financing and Construction
5 PROJECT OPERATIONS AND MAINTENANCE
Step 3: Project Refinement

**Purpose:** Validate decisions and finalize project structure

**Tasks:**
1. Finalize ownership structure and project team identification
2. Finalize permitting, including environmental reviews, net metering, and interconnection
3. Finalize technology, financing, and development costs

**Outputs:**
1. Proposed financing/commitments and organization structure
2. Detailed economic models
3. Vendors selected
4. Completed environmental reviews and finalized permits
5. Net-metering and interconnection agreement
6. Transmission finalized, if necessary
4 Implementation
Step 4: Implementation

**Purpose:** Contract for and *build* the project

**Tasks:**
- Finalize pre-construction activities including project agreements—financial, contractual, and interconnection
- Start construction and equipment installation
- Interconnect project to the grid
- Start project commissioning leading to facility/community project operation

**Output:** Completed project (operation)
Project Development Process

1. Potential
2. Options
3. Refinement
4. Implementation
5. Operations & Maintenance
Step 5: Operations & Maintenance

**Purpose:** Conduct or ensure ongoing operations and maintenance (O&M), including repair and replacement (R&R)*

**Task:**
- O&M agreements
- Warranties
- Monitoring system
- System performance
- Production guarantees
- Buyout Options

**Outputs:**
- Ensure responsible party carries out O&M/R&R*
- Measuring and tracking success
- Correlate with business plan and strategic energy plan
- Contract compliance
- Reporting of generation
- Met or exceeded energy and financial performance

*Especially if owner – role of highest O&M risk*
Revisit Energy Plan

- Check back in with planning document—update as necessary
- Identify next potential project from plan
Resources: On-Demand Curriculum

Access free courses anytime

- **Foundational Courses**
  Overview of specific renewable energy technologies, strategic energy planning, and grid basics

- **Leadership & Professional Courses**
  In-depth information on the components of the project development process and existing financing structures

[energy.gov/indianenergy/curriculum]