

# NAVIGANT

ENERGY

## Strategies to Address Challenges to Tribal Renewable Energy Project Development

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# Where to Begin: Strategic Planning

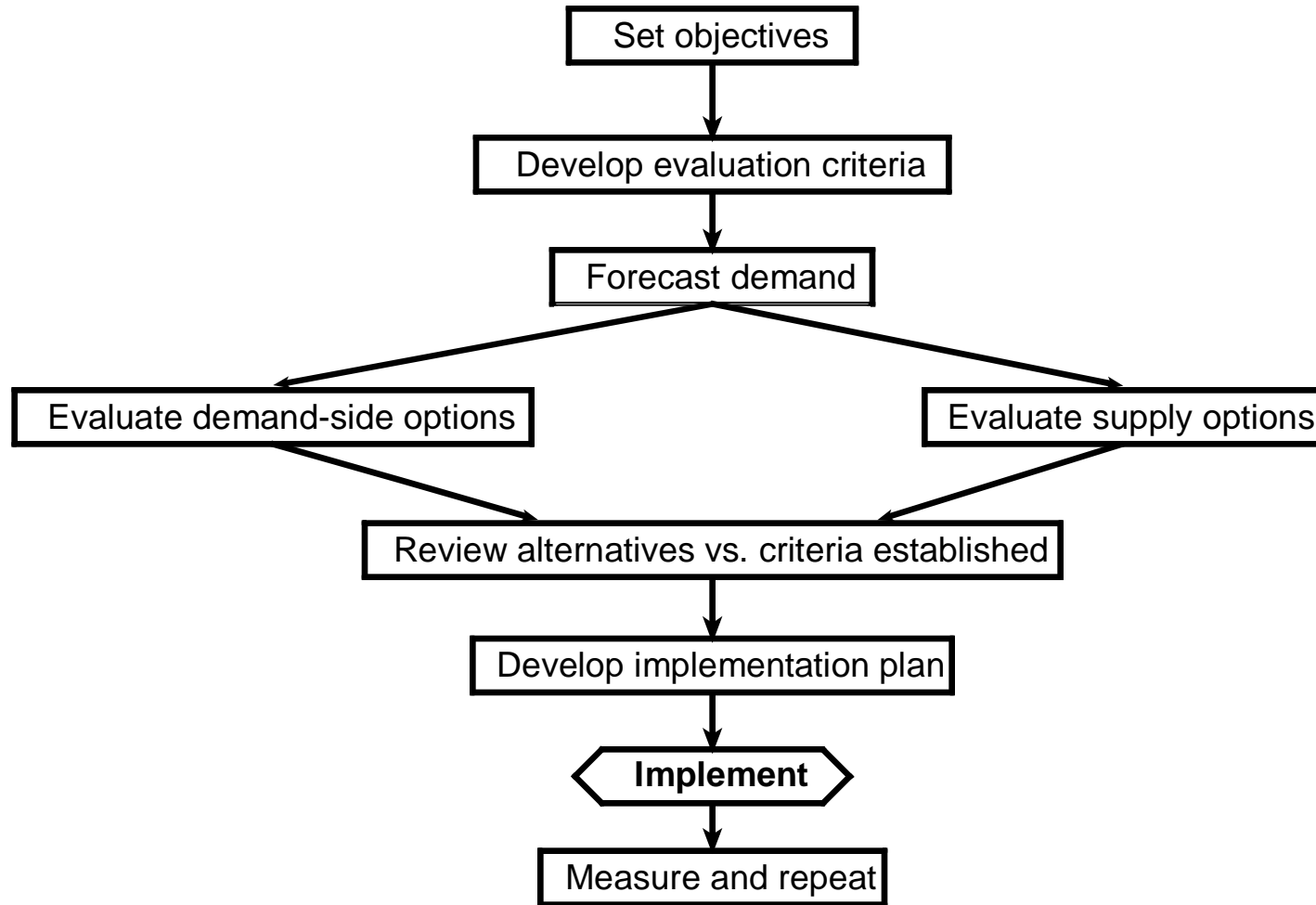
*Define where you want to go and develop a roadmap to get there.*

- Cultural and Environmental considerations
- Integrated Resource Planning
- Organizational Considerations
- Financial Considerations
- Legal and Regulatory Considerations

# Cultural & Environmental Considerations

- Natural Resource Valuation
  - Water and Air
  - Wildlife Habitat
  - Other Resources
- Technology Impacts
  - Emissions, Aesthetics, Noise
- Economic Development Trade-offs
- Cultural Impacts – (Sacred Sites, Plants, Burial Grounds)
- Tribal Impact- Community & Government
- Other Considerations, like holistic approach to development

# Do you have an Integrated Resource Plan (IRP) ?



# Organizational Considerations: Out-Sourcing

*Generally, some of the benefits of out-sourcing tasks may include:*

- Quicker results, more expediency
- More professional experience brought to the task
- Responsibility for results carried by outside firm
- Overall costs may be lower in the initial stages
- An opportunity to build internal capacity

*How much do tribes want to invest in cultivating and developing internal expertise and in-house skill sets?*

# Selecting the Right Partner

- Interview prospective partners at length
- Ask about their previous experience with tribes
- Check references
- Talk to other tribes about the partners with whom they have worked
- Ask government and other organizations about references about particular consultants
- Then – once selected:
  - In the feasibility stage, make sure the methodology to be used is spelled out.
  - Make sure the exact scope of what is expected is put in writing, including information transfer, on the job training, and, ultimately, jobs for the tribe.

# Financial Considerations

- Project purpose and ownership
  - Local consumption of power only?
    - Smaller project
    - Match generation to local demand
  - Consume power locally with possibility of selling excess power to the grid?
    - Larger project
    - Design generation to maximize efficiency (lowest costs)
- Pro-forma financial analysis
  - Initial costs
  - Annual costs
  - Periodic costs
  - Credits/incentives
  - Revenue sources
  - Analysis



# Project Ownership Considerations

## **Tribal ownership**

- Public ownership financing advantages to project
- Greater control

## **Developer ownership**

- Payments from developer to tribe
- Less control

## **Joint ownership**

- Partnership allows more tribal control while taking advantage of tax incentives

# Initial Costs

## Feasibility study phase

- Site investigation
- Cultural assessment
- Resource assessment
- Environmental assessment
- Preliminary design
- Detailed cost estimate

## Development Phase

- Power Purchasing Agreement (PPA) negotiation
- Permits and approvals
- Land survey
- Transmission agreement
- Legal agreements
- Detailed engineering design

## Equipment and plant

- Equipment installation
- Spare parts
- Road construction
- Transmission line and interconnection
- Control buildings

# Annual & Periodic Operating Costs

## *Annual Costs*

- Maintenance
- Debt service
- Insurance premium
- Administration and management costs
- Warranty premiums
- Property tax
- Income tax
- Royalty payment

## *Periodic costs*

- Wind
  - Drive train
  - Blades
- Hydro
  - Turbine overhaul
- Photovoltaic
  - Battery replacement

# Project Income Sources

## Electricity sales

- Local consumption revenue
- Sale of excess electricity to the grid
  - Price according to historical data
  - Regulated vs. deregulated markets
  - Purchase Power Agreement

## Green Tags (or Tradable Renewable Energy Certificates)

- Payments for environmental values (e.g., emission reductions) separate from payment for electricity
- Could be sold to help meet green energy mandates and/or allow end users to support green energy
- Most commonly sold through a broker

# Financing Options

## Mix of debt and equity

- Tribal government vs. Tribal enterprise ownership
- Loan term
- Interest rate

## Credits and Incentives

- Grants
- Accelerated depreciation
- State-level credits/incentives
- Guaranteed loans

## Financial Analysis Methods

- Net present value of project net revenue
- Internal rate of return (IRR)
- Make sure debt service requirements are met

# What will happen to wind markets when federal incentive programs expire at the end of 2012?



**Recent federal legislation has benefitted renewable energy project financing in a variety of ways.**

- **Section 1603 cash grant:** proven to be highly successful and is credited for keeping the industry afloat during the economic crisis.
- **Bonus Depreciation:** adds significant value to a wind project, but it is also being phased out by the end of 2012.
- **DOE Section 1705 Loan Guarantee:** has not been particularly helpful to wind project development.
- The project finance markets are recovering slowly from the financial crisis.

**The Levelized Cost of Electricity (LCOE) of wind will increase significantly without these incentives.**

# Legal & Regulatory Considerations

- **Tribal Sovereignty**

- Governing Law/Jurisdiction
  - Energy Project Development will raise jurisdiction/sovereignty issues.
  - Jurisdiction? Tribal, Federal, or State?
  - Trend: Case law has chipped away at Tribal control of nonmembers on non-tribal fee land.

- **Tribal Governments and Infrastructure**

- **Resource Rights & Right-of-Ways**

- **Tax Issues**

- Taxation is related to business arrangement
- Tax-Exempt Bonds are an option
  - In 1982, Congress passed the Indian Tribal Governmental Tax Status Act providing Tribes with same federal tax treatment as states.
  - Facilities must serve essential government function (schools, streets, etc)
- Accelerated Depreciation
- Indian Employment Tax Credits

# Key CONTACTS



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