DOE OFFICE OF INDIAN ENERGY

The Five-Step Development Process

Step 3: Project Refinement
Presentation Agenda – Step 3

• Project funding and financing
• Activity
• Break
• Procurement options
  – General Services Administration (GSA) purchasing
  – Request for Proposal (RFP) process and vendor selection
• Activity
Step 3: Project Refinement

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

**Tasks:**
- Finalize ownership structure and project team identification responsibilities
- Finalize permitting (including environmental reviews), interconnection
- Finalize financing, and development costs

**Outputs:**
- Proposed financing/commitments and organization structure
- Detailed economic models
- Vendors selected
- Completed environmental reviews and finalized permits
- Off-take and interconnection agreement
- Transmission finalized, if necessary
FUNDING OPPORTUNITIES & FINANCING OPTIONS
Paying for the Project

Three major costs to develop a project:

1. Feasibility: this is the potential analysis
2. Preconstruction: permitting, environmental
3. Construction: engineering, procurement of equipment, and actual construction of plant
Project Costs

Cash Flows

Capital Investment

Development Costs
Project Ownership

Financing structure is highly dependent on size of the project and the capital available for a given project:

- Tribe owns the project
- Tribe hosts the project and buys the electricity
- Tribe partners with private sector and co-develops the project
Financing Options and Sources of Capital

• Cash on hand (e.g. reserves, trust, cash flow from other activities)
• Grants from third parties
• Renewable Energy Incentives
• Debt
  – Tribal Economic Development Bonds (TEDs)
  – Clean Renewable Energy Bonds (CREBS)
  – Qualified Energy Conservation Bonds (QECBs)
  – Others
• Tax equity investors seeking tax incentives
• Energy savings performance contracts (ESPCs) and Utility Energy Savings Contracts (UESCs)
• Monetizing green attributes-RECs
• Various combinations
Direct Ownership Structure

Primarily for facility and community-scale projects

Tribe purchases a renewable energy system with its own funding

Over time, investment recouped from utility bill savings

The Tribe is the owner in this structure and self-generates its electricity

Project

Tribe and Electricity Users

Project Company/Pass-Through Entity

Utility

Payments

Remaining Energy Needs
Direct Ownership Using Tribal Funds

**Advantages**
- Maximum reduction in electricity bills
- Lower finance costs (or none depending on source)
- Maximum control over a project: design, operations, and risks
- Own renewable energy certificates (RECs) and can choose to retain or monetize
- Might be only option for small projects

**Disadvantages**
- Requires significant upfront financial resources
- Don’t fully benefit from available tax incentives given tax-exempt status
- Responsibilities of ownership (operations & maintenance)
- Possible electricity rate impacts for tribe (increase or decrease)
- Opportunity costs of not using the cash for other competing investments such as housing, gaming, or other interests
Grants

Advantages

• Typically do not require repayment (free money)
• No financing costs

Disadvantages

• Typically must be used for a specific purpose and may not cover the full cost of the project
• Eligibility requirements may limit the applicant pool
• Issued via competitive solicitations that may have high number of applicants for limited funding
• Application process may be difficult, costly, and time consuming or based on a funding cycle that can delay project
• Likely to involve significant reporting and monitoring efforts
• Likely to require other matching funds or tribal funds
### DSIRE Tool: Grants

States: Oklahoma  
Program Type: Grant Program

<table>
<thead>
<tr>
<th>Name</th>
<th>State/Territory</th>
<th>Category</th>
<th>Policy/Incentive Type</th>
<th>Created</th>
<th>Last Updated</th>
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<tbody>
<tr>
<td>Tribal Energy Program Grant</td>
<td>US</td>
<td>Financial Incentive</td>
<td>Grant Program</td>
<td>05/01/2003</td>
<td>03/05/2015</td>
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<tr>
<td>USDA - Repowering Assistance Biorefinery Program</td>
<td>US</td>
<td>Financial Incentive</td>
<td>Grant Program</td>
<td>10/08/2012</td>
<td>02/06/2015</td>
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<tr>
<td>USDA - Rural Energy for America Program (REAP) Energy Audit and Renewable Energy Development Assistance (EA/REDA) Program</td>
<td>US</td>
<td>Financial Incentive</td>
<td>Grant Program</td>
<td>02/18/2015</td>
<td>02/19/2015</td>
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<tr>
<td>Low Income Home Energy Assistance Program (LIHEAP)</td>
<td>US</td>
<td>Financial Incentive</td>
<td>Grant Program</td>
<td>03/16/2015</td>
<td>03/16/2015</td>
</tr>
<tr>
<td>Weatherization Assistance Program (WAP)</td>
<td>US</td>
<td>Financial Incentive</td>
<td>Grant Program</td>
<td>03/31/2015</td>
<td>03/31/2015</td>
</tr>
</tbody>
</table>

www.dsireusa.org
# Grants: Federal Government Sponsored

<table>
<thead>
<tr>
<th>Program</th>
<th>Details</th>
</tr>
</thead>
</table>
| Rural Energy for America Grant Program (USDA)                          | - $2,500–$500,000 or 25% of project costs, whichever is less  
- Requirements: Borrower must be rural small business or agricultural producer |
| High Energy Cost Grant Program (USDA)                                  | - $75,000–$5,000,000  
- Requirements: Community's average home energy costs must exceed 275% of national average |
| Tribal Energy Program Grant (DOE)                                      | - Amount varies  
- Requirements: Varies by solicitation |
| Energy and Mineral Development Program (BIA)                           | - Amount varies  
- Applications: Evaluation of energy and mineral resources on tribal lands. |
# DSIRE Tool: Incentives and Rebates

<table>
<thead>
<tr>
<th>Name</th>
<th>State/Territory</th>
<th>Category</th>
<th>Policy/Incentive Type</th>
<th>Created</th>
<th>Last Updated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edmond Electric - Residential Heat Pump Rebate Program</td>
<td>OK</td>
<td>Financial Incentive</td>
<td>Rebate Program</td>
<td>08/22/2006</td>
<td>02/17/2015</td>
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<tr>
<td>Oklahoma Electric Cooperative - Energy Efficiency Rebate Program</td>
<td>OK</td>
<td>Financial Incentive</td>
<td>Rebate Program</td>
<td>08/10/2009</td>
<td>02/25/2015</td>
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<tr>
<td>Verdigris Valley Electric Cooperative - Residential Energy Efficiency Rebate Program</td>
<td>OK</td>
<td>Financial Incentive</td>
<td>Rebate Program</td>
<td>08/10/2009</td>
<td>06/08/2012</td>
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<tr>
<td>OG&amp;E - Commercial Energy Efficiency Rebate Programs</td>
<td>OK</td>
<td>Financial Incentive</td>
<td>Rebate Program</td>
<td>08/27/2009</td>
<td>02/14/2013</td>
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<tr>
<td>AEP Public Service Company of Oklahoma - Non-Residential Efficiency Rebate Program</td>
<td>OK</td>
<td>Financial Incentive</td>
<td>Rebate Program</td>
<td>09/14/2009</td>
<td>05/22/2013</td>
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<tr>
<td>Residential Energy Efficiency Rebate (Offered by Several Cooperative Utilities)</td>
<td>OK</td>
<td>Financial Incentive</td>
<td>Rebate Program</td>
<td>03/16/2010</td>
<td>06/06/2012</td>
</tr>
<tr>
<td>Oklahoma Municipal Power Authority - WISE Energy Efficiency Rebate Program</td>
<td>OK</td>
<td>Financial Incentive</td>
<td>Rebate Program</td>
<td>01/03/2011</td>
<td>08/08/2012</td>
</tr>
<tr>
<td>Oklahoma Municipal Power Authority - Commercial and Industrial Energy Efficiency Program</td>
<td>OK</td>
<td>Financial Incentive</td>
<td>Rebate Program</td>
<td>01/03/2011</td>
<td>07/26/2012</td>
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</table>

[www.dsireusa.org](http://www.dsireusa.org)
# Federal Energy Development Assistance Tool

**Search:**

<table>
<thead>
<tr>
<th>TYPE OF ASSISTANCE</th>
<th>AGENCY</th>
<th>DESCRIPTION</th>
<th>TYPE OF ASSISTANCE</th>
<th>ELIGIBILITY</th>
<th>PHASE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education and capacity building</td>
<td>Small Business Administration</td>
<td>Provides growing businesses with long-term, fixed-rate financing for major fixed assets, such as land and buildings</td>
<td>Loan and loan guarantee programs</td>
<td>Federally recognized Tribes and tribal governments; Alaska Native and tribal corporations; Alaska Native villages; Tribal universities, utilities, and other organized tribal groups; State-recognized-only Tribes; Tribal universities, utilities, and other organized tribal groups; Tribal nonprofit organizations (503-(C)(3)); Tribal energy resource development organizations</td>
<td>Phase 1: Phase 4</td>
</tr>
<tr>
<td>Grants</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information resources</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loan and loan guarantee programs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tax credits</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Technical assistance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Search Results:**

- **Program: 504 Loan Program**
  - AGENCY: Small Business Administration
  - DESCRIPTION: Provides growing businesses with long-term, fixed-rate financing for major fixed assets, such as land and buildings
  - TYPE OF ASSISTANCE: Loan and loan guarantee programs
  - ELIGIBILITY: Federally recognized Tribes and tribal governments; Alaska Native and tribal corporations; Alaska Native villages; Tribal universities, utilities, and other organized tribal groups; State-recognized-only Tribes; Tribal universities, utilities, and other organized tribal groups; Tribal nonprofit organizations (503-(C)(3)); Tribal energy resource development organizations
  - PHASE: Phase 1: Phase 4

- **Program: Advanced Biofuels Payment Program**
  - AGENCY: Department of Agriculture: Rural Development
  - DESCRIPTION: Provides payments to eligible producers to support and expand production of advanced biofuels refined from sources other than corn stover
  - TYPE OF ASSISTANCE: Loan and loan guarantee programs
  - ELIGIBILITY: Tribal universities, utilities, and other organized tribal groups; State-recognized-only Tribes
  - PHASE: Phase 4

- **Program: Advanced Research Projects Agency-Energy (ARPA-E)**
  - AGENCY: Department of Energy: ARPA-E
  - DESCRIPTION: Empowers America’s energy researchers with funding, technical assistance, and market roadmaps to accelerate the pace of energy
  - TYPE OF ASSISTANCE: Grants
  - ELIGIBILITY: Federally recognized Tribes and tribal governments; Alaska Native and tribal corporations; Alaska Native villages, Tribal
  - PHASE: Phase 4

[www.energy.gov/indianenergy/fedprograms](http://www.energy.gov/indianenergy/fedprograms)
## Debt: Government-Sponsored Loan Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Type</th>
<th>Details</th>
</tr>
</thead>
</table>
| Indian Affairs Loan Guaranty, Insurance, and Interest Subsidy Program (BIA) | Guarantee | • Max 90%; Interest subsidy covers the difference between the lender’s rate and the Indian Financing Act rate  
• Requirements: Borrower must have 20% tangible equity in the project. This is for business development. |
| Rural Energy for America Loan Guarantee Program (USDA)                  | Guarantee | • Up to 85% of loan amount  
• Requirements: Borrower must be rural small business or agricultural producer  
• Technology: Biomass, solar, wind, hydro, hydrogen, geothermal  
• Applications: equipment, construction, permitting, professional service fees, feasibility studies, business plans, land acquisition |
Other Potential Sources of Debt/Loans

• Tribal Economic Development Bonds (TED)
• Clean Renewable Energy Bonds (CREBs)
• Qualified Energy Conservation Bonds (QECBS)
• Commercial bank loans
• Other
Debt/Loan

Advantages

• Typically lower cost of capital than what equity investment requires

• Can provide most of the financing for a project, reducing the amount of the Tribe’s invested capital

• Available in a various forms from different types of issuers: bonds (investors), private loans (banks, finance companies, etc.), public loans (government agencies), etc.

Disadvantages

• Requires repayment with interest

• Terms (maturity, interest rate, etc.) can vary, and may not be economically feasible for a particular project

• Default penalties can be punitive

• May require the Tribe to offer a limited sovereignty waiver

• May require the borrower to demonstrate a strong financial position itself (in addition to the financial profile of the underlying project)
The customer agrees to **host** the system and **purchase** the electricity worth ~50% of the cost of a solar system.
Federal Tax Incentives

- Production Tax Credit (PTC)
- Investment Tax Credit (ITC)
- Modified Accelerated Cost Recovery System (MACRS)
## Comparison of Tax Incentives

<table>
<thead>
<tr>
<th></th>
<th>PTC</th>
<th>ITC</th>
<th>Accelerated Depreciation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value</strong></td>
<td>Tax credit of 2.3¢/kWh or 1.1¢/kWh, depending on tech</td>
<td>Tax credit of 10% or 30% of project costs, depending on tech</td>
<td>Depreciation of eligible costs (not all project costs qualify)</td>
</tr>
</tbody>
</table>
| **Select Qualifying Technologies** | • Wind  
• Geothermal  
• Biomass  
• Hydro | • Solar  
• Fuel cells  
• Small wind  
• Geothermal | Depreciation can be taken with either PTC or ITC |
| **Basis**     | Energy produced over 10-year period. Can be combined with depreciation. | Eligible project cost. Credit taken at the time the project is placed in service. Can be combined with depreciation. | MACRS: 5-year depreciation schedule |
| **Expiration/Step Down** | Start construction before 12/31/2014 | Placed in service before 1/1/2017* | MACRS: None |
Federal Renewable Energy Tax Incentives

Advantages

• Can stimulate markets that may not otherwise be economically attractive
• Offers an additional source of economic value to the project. Can be worth up to approximately half of the project’s costs
• Not competitively issued – awarded when project is built and producing energy
• No federal cap on amount of incentives that can be received

Disadvantages

• When tax-based (e.g. tax credits and depreciation), they are not easily usable by tribal entities with special tax status
• May require a Tribe to partner with outside investors which involves complex negotiations and relinquishing a certain level of control and economic return during the early years of the project
• Some of the current tax incentives are due to expire or be lowered, reducing their value for projects.
Third-Party (i.e., Tax Equity) vs. Tribal Ownership

Tribal Owned (Without Incentives)

<table>
<thead>
<tr>
<th>Metric</th>
<th>Base</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Energy</td>
<td>37,230,428</td>
</tr>
<tr>
<td>PPA price</td>
<td>28.36 c/kWh</td>
</tr>
<tr>
<td>LCOE Nominal</td>
<td>27.22 c/kWh</td>
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<tr>
<td>LCOE Real</td>
<td>22.11 c/kWh</td>
</tr>
<tr>
<td>Internal rate of return (%)</td>
<td>12.00 %</td>
</tr>
<tr>
<td>Minimum DSCR</td>
<td>3.36</td>
</tr>
<tr>
<td>Net present value ($)</td>
<td>$2,386,955</td>
</tr>
<tr>
<td>Calculated ppa escalation (%)</td>
<td>1.00 %</td>
</tr>
<tr>
<td>Calculated debt fraction (%)</td>
<td>50.00 %</td>
</tr>
<tr>
<td>Capacity Factor</td>
<td>21.3 %</td>
</tr>
<tr>
<td>First year kWhac/kWdc</td>
<td>1,862</td>
</tr>
<tr>
<td>System performance factor (%)</td>
<td>0.82</td>
</tr>
</tbody>
</table>

Third-Party Owned (With Incentives)

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<tr>
<td>PPA price</td>
<td>22.62 c/kWh</td>
</tr>
<tr>
<td>LCOE Nominal</td>
<td>13.55 c/kWh</td>
</tr>
<tr>
<td>LCOE Real</td>
<td>11.00 c/kWh</td>
</tr>
<tr>
<td>Internal rate of return (%)</td>
<td>21.11 %</td>
</tr>
<tr>
<td>Minimum DSCR</td>
<td>1.57</td>
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<tr>
<td>Net present value ($)</td>
<td>$6,525,698</td>
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<tr>
<td>Calculated ppa escalation (%)</td>
<td>1.00 %</td>
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<tr>
<td>Calculated debt fraction (%)</td>
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<tr>
<td>System performance factor (%)</td>
<td>0.82</td>
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</table>

50% decrease
Power Purchase Agreement (PPA) Considerations to Weigh

Advantages:
- No/low up-front costs
- No O&M
- Benefit from tax incentives
- Locked-in energy price
- Path to ownership

Disadvantages:
- May not beat current electricity rates
- Tough economics for small projects
- Higher transaction costs
- REC and project ownership requirements
PPA Example Denver International Airport Case Study

Denver International Airport (DIA) installed a 2-MW solar array to provide up to half of the electricity to power the transit system.

**Market Barriers:** Cost of electricity, price stability, construction risks

**Government Role:** Sponsor, off-taker

**Transaction Summary:** MMA Renewable Ventures financed and owns the project and sells the electricity it produces to the airport under a long-term PPA.

**Outcome:**
- DIA reduced electricity costs
- MMA Renewable Ventures sells the RECs to Xcel
- Xcel Energy uses the RECs to fulfill its state renewable energy obligation by 2020
- Receives rebate from Xcel, a large tax federal break, and generates guaranteed revenue from the electricity the array produces.

<table>
<thead>
<tr>
<th>DIA Solar Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size (DC)</td>
</tr>
<tr>
<td>Type</td>
</tr>
<tr>
<td>Developer</td>
</tr>
<tr>
<td>Owner</td>
</tr>
<tr>
<td>PPA Terms</td>
</tr>
</tbody>
</table>

Community Project PPA: Eventual Tribal Ownership Example

Developer and investor form a project company (LLC) to develop a wind or solar project

• Tribe signs a PPA with the LLC to purchase the electricity
  – Ideally at a discount to current retail cost of electricity

• At end of 6 years (ITC) or 10 years (PTC)
  – Investor ownership “flips” from 99% down to 5%
  – Developer buys investor 5% ownership at “fair market value”
  – Developer now owns 100% of the project

• Developer can then sell project to Tribe
  – Project price is substantially reduced compared to Tribe project development from year 1
March 8, 2013 IRS Private Letter Ruling – 111532-11

• An Indian tribal government is not considered a “governmental unit” or “tax-exempt organization” for purposes of solar energy tax subsidies

• This presumably could permit tribal governments to enter into an inverted lease structure without jeopardizing access and use of federal tax incentives (potentially big change)

• Yet to be executed in the market; perhaps only applicable to the Tribe that applied; it would be wise to seek legal counsel


Energy Savings Performance Contract (ESPC)

An ESPC is a **no up-front cost** contracting mechanism between a site customer and an energy service company (ESCO). Energy conservation measures and on-site generation are financed and implemented by an ESCO, which is repaid through energy savings.

Over 90 DOE-Qualified ESCOs, including:

View the full DOE ESPCs list at: [energy.gov/eere/femp/doe-qualified-energy-service-companies](http://energy.gov/eere/femp/doe-qualified-energy-service-companies)
ESPCs Reallocate Current and Future Energy Spending

- **Customer's Cash Flow**:
  - No ESPC
  - During ESPC
  - After ESPC

- **Customer's Savings**
- **ESCO Services Fee and Financing**
- **Energy and Operations and Maintenance Costs**
Typical ESPC Measures

- Lighting: indoor, outdoor, street lights
- Heating, ventilating, and air conditioning (HVAC)
- Energy management systems
- Motors and variable speed drives
- Building envelope measures
- Water conservation measures
- Distributed generation and combined heat and power—renewable or fossil fuel
- Other systems (kitchen, security, etc.)

Photo from Kathie Brosemer, Sault Ste. Marie Tribe of Chippewa Indians
Utility Energy Services Contract (UESC)

• A contract that allows utilities to provide their federal customers with energy and water efficiency improvements and demand-reduction services

• The utility provides a comprehensive service including analysis, design, and installation and may include financing when requested

1 megawatt of solar PV at NREL's National Wind Technology Site. NREL 19794
Why Utilities Offer UESCs

• Manage load by lowering demand
• Delay or eliminate need for new generation
• Meet state energy and renewable energy portfolio standards
• Help customers meet their energy goals

1.10 megawatt solar PV array at the San Jose International Airport. Meets 20% of the facility’s energy needs.
Electric Utilities Actively Offering UESC Programs

Utilities Offering Utility Energy Service Contracts (UESCs) to Federal Facilities

This map was produced by the National Renewable Energy Laboratory for the U.S. Department of Energy. February 2012

*Source: Ventyx Data ©2012 Ventyx

2010 Commercial Electricity Rate* cents/kWh
- > 20
- 11 - 20
- 8 - 11
- < 8
- No Data

Printed in U.S.A.
ESPC and UESC Advantages and Disadvantages

**Advantages**

- Typically, little to no upfront cost for the Tribe
- Pays for the project via energy savings of new equipment
- Can cover a bundle of upgrades in one financing, from energy efficiency to renewable energy installations
- May offer some modest cost savings including monthly payment from the onset

**Disadvantages**

- Energy savings calculations depend on initial assumptions, and may not accurately reflect actual savings
- Typically requires a minimum expenditure threshold (around $1 million of projects bundled)
- Tribe receives the majority of the economic savings only after the contract is fully paid off
Monetizing Green Attributes: Renewable Energy Certificates

- Used to track renewable energy production for state renewable portfolio standards (RPS)
- Utilities may purchase RECs to fulfill state requirements
- Producer usually owns REC, but varies by state
- Transactions regulated by state
  - State may require contract with minimum length (e.g., 20 years)
  - Some states sponsor/facilitate market
  - Some states allow private/direct transactions
Renewable Energy Certificates (REC)

Source: http://www.epa.gov/greenpower/gpmarket/rec_chart.htm
**REC Advantages and Disadvantages**

**Advantages**

- Creates an additional source of revenue for renewable projects, based on the projects’ “green attributes”
- If prices are high enough, RECs can help spur the development of a local renewable energy markets often where the cost of competing electricity is low.

**Disadvantages**

- Not available everywhere
- Compensation depends on a market price which may sometimes be too low to make a difference in whether or not a project makes financial sense.
- Finding a buyer in marketplace can be difficult without a broker, or without selling to a third-party at a discount
- Project lenders may value these at a low price (even zero) without a long term contract in place which is often unavailable.
REC Video

https://www.youtube.com/watch?v=opJMrzNauFQ
Community (or Shared) Solar

- Usually an off-site solar project
- Taps into new markets of customers
- Various ownership options (e.g., utility-owned, third-party owned)
- Participants make a one-time up-front payment or monthly payments
- Participants receive a bill credit

Example pricing:
- $780 per solar panel
- $3.15/Watt
- $3 per 150 kWh per month

Source: http://www.nrel.gov/docs/fy15osti/63892.pdf
On-Request Technical Assistance

Apply for up to 40 hours of in-depth technical assistance to:

• Address a specific challenge
• Fulfill a need that is essential to a current project’s successful implementation

Two categories of technical assistance:

1. **Strategic Energy Planning**—an on-site workshop that walks tribal leaders and staff through a nine-step planning process

2. **Project Development Support**—Expert guidance and analysis that helps address specific project barriers. Examples include:
   - Third-party independent reviews of transmission studies, financing structures, lease agreements, project reports
   - Modeling and analysis (or assistance using modeling/analysis tools)
   - Pre-feasibility transmission Studies
   - Interconnection agreement facilitation
   - Economic evaluations
   - System design reviews

Learn more and apply online: [energy.gov/indianenergy/technical-assistance](http://energy.gov/indianenergy/technical-assistance)
Activity

Finance Advantages and Disadvantages
PROCUREMENT
Procurement Process for Facility- and Community-Scale Projects

**Step 1:** Develop and Issue RFP

**Step 2:** Make Selection

**Step 3:** Negotiate Contracts

Potential Project Partners to Procure

- Consider GSA as a resource for procurement: [http://www.gsa.gov/portal/category/20998](http://www.gsa.gov/portal/category/20998)
- Project developer
- Engineering, procurement, and construction (EPC) contractor
- Environmental permits contractor
  - May apply to some community projects, but not to others
Request for Proposals (RFP) Process Outline

1. Develop RFP
   - Timeline: 1 month to 1 year (depends on project scale and site complexity)
   - Who creates the RFP: project leader, contract officer/lawyer, site manager(s), energy manager and technology expert. RFP writers will receive input from utility, tribal leaders, and stakeholders
   - RFP content

2. Issue RFP
   Tribal, federal, and industry networks

3. Administer the RFP
   - Proposal meeting(s)
   - Site tour(s) – can be concurrent with proposal meeting
   - Q&A process – ensure all developers get same information

4. Evaluate Criteria
   - Should be a clear process with well defined criteria
   - Evaluation panel recommended to consist of an odd number of members (typically 3 to 7)

5. Award Contract
   Four approaches
Develop RFP

Key Elements of the RFP

• Type of procurement:
  – Purchase
  – Power purchase agreement (PPA)
  – ESPCs
  – Other finance structure

• Technical specification (scope of work)

• Criteria for evaluating proposals: 3–5 of most important project aspects
  – Proposed project solution that meets specified criteria
  – System performance guarantee
  – Developer experience, track record, and customer satisfaction
  – Developer financial health/longevity
  – Maintenance plan
  – Reasonable timelines
  – Other
Develop RFP cont.

Key Elements of the RFP

• Description of RFP administration process
  — Typically 2–5 months
  — Key dates: proposal meeting(s), sites visit(s), proposal due date
  — Description of how questions will be handled and answered

• Defining responsible parties
  — Who is responsible for permits
  — Who is responsible for interconnection agreements
  — Who is responsible for applying for incentives

• Any preferences on parties allowed to submit proposals
  — Small business
  — Minority-owned
  — Other

• Land use agreements
  — Address site access and land use issues as relevant to ownership model
RFP Technical Specifications

Define Scope of Work

- What is the project scale
- Type of renewable energy technology
- Site information:
  - Location
  - Interconnection requirements as known
  - Applicable codes and standards
  - Roof structure, soils, other (as applicable and available)
  - Site prep: fencing, roads, grading limitations, etc.
  - Installation requirements: min/max heights of equipment, vegetation mitigation, design standards for structural/electrical
- Equipment minimum standards and warranties
- Expected minimum performance (recommended) or capacity
- Strategy for training maintenance and operations staff
- Commissioning plan
RFP Evaluation Criteria

Two Typical Approaches

• Best value:
  – Typically 3–5 criteria with weighting based on importance
  – Score proposal on each criteria
  – Somewhat subjective and can lead to contentious, time-consuming evaluations but good method to capture best value

• Low price, technically acceptable
  – Proposals initially stripped of pricing/cost information
  – First evaluation determines proposals that meet technical hurdle
  – Technically acceptable proposal with lowest cost gets award
  – More transparent process but may not capture best value
Choose One of These Four Typical Approaches

1. Award based on proposal: awarded solely on merits of proposal

2. Award with discussion: awarded on proposal but contingent on clarifying discussions

3. Award with discussion and negotiation: awarded on proposal but contingent on further negotiation

4. Award with best proposal:
   - Best proposals are short-listed
   - Short-listed proposals asked for best final proposal revision
   - Award based on final proposal revision
Summary: Project Procurement and Implementation

• Procurement strategy will vary depending on the project scale and financing solution selected

• Increasingly more complex for larger projects

• Post procurement issues are critical as these are very long term assets and relationships

• Save time and money by considering GSA pricing
## Project Risk: Community- and Facility-Scale

<table>
<thead>
<tr>
<th>Phases</th>
<th>Risks</th>
<th>Risk Assessment Post Step 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Development</strong></td>
<td>• Poor or no renewable energy resource assessment</td>
<td>Low; site picked</td>
</tr>
<tr>
<td></td>
<td>• Not identifying all possible costs</td>
<td>Low; detailed model</td>
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<td></td>
<td>• Incorrect estimation of long-term “community” energy use (energy efficiency first)</td>
<td>Low; final projection</td>
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<td></td>
<td>• Utility rules and ability to offset use with centralized production</td>
<td>Reduced</td>
</tr>
<tr>
<td><strong>Site</strong></td>
<td>• Structural (e.g. rooftop solar, wind loading, soil conditions)</td>
<td>Assumed low; assessed</td>
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<tr>
<td></td>
<td>• Installation safety (e.g., wind tower, hazard for adjacent sites)</td>
<td>EPC assumes risk</td>
</tr>
<tr>
<td></td>
<td>• Site control for safety/security purposes</td>
<td>Low; site secure</td>
</tr>
<tr>
<td><strong>Permitting</strong></td>
<td>• Tribe-adopted codes and permitting requirements</td>
<td>Low; complete</td>
</tr>
<tr>
<td></td>
<td>• Utility interconnection requirements</td>
<td>Low; complete</td>
</tr>
<tr>
<td><strong>Finance</strong></td>
<td>• Capital availability</td>
<td>Low; PPA complete</td>
</tr>
<tr>
<td></td>
<td>• Incentive availability risk</td>
<td>Low; risk on developer</td>
</tr>
<tr>
<td><strong>Construction/Completion</strong></td>
<td>• EPC difficulties</td>
<td>Low; allocate to EPC or developer</td>
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<td></td>
<td>• Cost overruns</td>
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<td></td>
<td>• Schedule</td>
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<tr>
<td><strong>Operating</strong></td>
<td>• Output shortfall from expected</td>
<td>Assumed low, mitigable or allocatable</td>
</tr>
<tr>
<td></td>
<td>• Technology O&amp;M</td>
<td></td>
</tr>
</tbody>
</table>

*NOTE: Underlining signifies that the risk assessment outcome changes during the step at hand.*

Sources: Adapted from Holland & Hart, RE Project Development & Finance & Infocast, Advanced RE Project Finance & Analysis
On-Request Technical Assistance

Apply for up to 40 hours of in-depth technical assistance to:

• Address a specific challenge
• Fulfill a need that is essential to a current project’s successful implementation

Two categories of technical assistance:

1. **Strategic Energy Planning**—an on-site workshop that walks tribal leaders and staff through a nine-step planning process

2. **Project Development Support**—Expert guidance and analysis that helps address specific project barriers. Examples include:
   - Third-party independent reviews of transmission studies, financing structures, lease agreements, project reports
   - Modeling and analysis (or assistance using modeling/analysis tools)
   - Pre-feasibility transmission Studies
   - Interconnection agreement facilitation
   - Economic evaluations
   - System design reviews

Learn more and apply online: [energy.gov/indianenergy/technical-assistance](https://energy.gov/indianenergy/technical-assistance)
Tribal Case in Point: Refine the Project

Campo Band of the Kumeyaay Nation, CA

- **Challenges**
  - Requested technical assistance in reviewing developer-generated plans for a wind farm on its reservation
  - With an existing wind farm already on-site and some experience with wind development, Campo was interested in potential ownership options in the proposed new project and sought assistance with evaluating them

- **DOE Technical Assistance**
  - Validated data collected through anemometer testing
  - Provided tribal leadership with background information on partnerships and ownership options
  - Briefed tribal leaders and staff on various project ownership configurations

“The Tribe was pleased with the sale-leaseback ownership option and determined that it was a more realistic path to ownership for them.”

—Colton Heaps, NREL
Activity

• RFP Ranking
Types of GSA Support

• Global Supply
• Multiple Award Schedule Contracts
• Airline CityPairs Program
• Travel Program
• Excess Personal Property*
• Vehicle Leasing* and Acquisition
• SmartPay2 Purchase Card Program

*Not available to Tribes or Tribal Designated Housing Entities using Native American Housing Assistance and Self Determination Act of 1996 authority/funding
GSA Multiple Award Schedules

• GSA establishes long-term, government-wide contracts with commercial firms to provide access to millions of commercial products and services at volume-discount pricing

• Why use them?
  – Competition requirements have been met
  – Indian preference still applies
  – Best-value determination required

• Compliant with environmental requirements

• Discounts negotiated for you