

DOE OFFICE OF INDIAN ENERGY

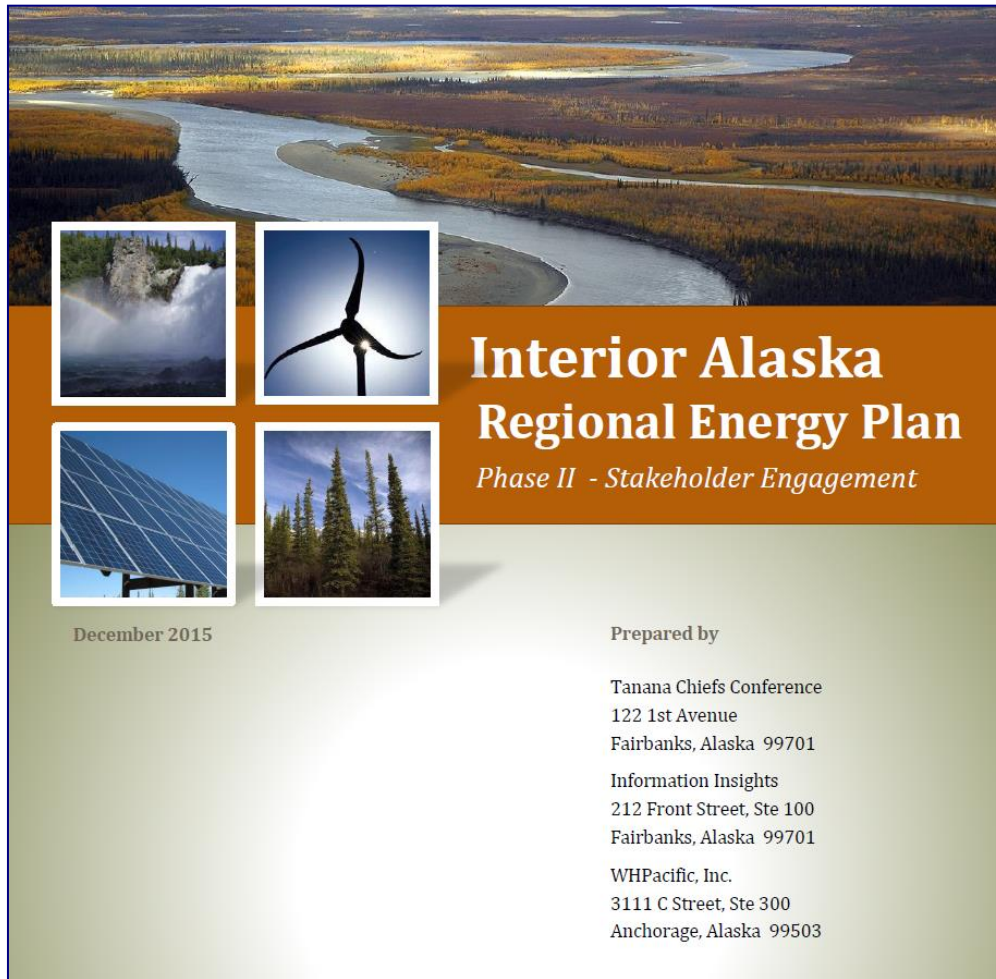
The Five-Step Process Framework for Project Development



U.S. DEPARTMENT OF
ENERGY

Office of
Indian Energy

Strategic Energy Plan – Interior Alaska



**Interior Alaska
Regional Energy Plan**
Phase II - Stakeholder Engagement

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Some of the Recommendations
Improve diesel generator efficiency

- kWh/gallon basis

Energy Efficiency Goals

- Lighting retrofits
- Implement Energy Audit Recommendations

Renewable Energy

- 20% by 2025 targets
- Solar to be the most widespread renewable energy technology in the future

Multiple smaller projects rather than fewer big ones.

Table 14: Energy resource potential and certainty for community-scale projects (continued)

	Arctic Village	Beaver	Birch Creek	Central	Chalkyitsik	Circle	Fort Yukon	Venetie	Galena	Huslia	Kaltag	Koyukuk	Nulato	Ruby
Biomass	L	M	H	M	H	M	H	H	H	H	M	M	M	M
Geothermal	L	L	L	L	L	L	L	L	L	L	L	L	L	L
Hydro	M	L	L	M	L	L	L	L	L	L	L	L	L	M
Solar	H	H	H	H	H	H	H	H	H	H	H	H	H	H
Wind	L	L	L	L	L	L	L	L	L	L	L	L	L	L
Coal	L	L	L	L	L	L	L	L	L	M	M	M	M	M
Oil & Gas	L	L	L	L	L	L	L	L	L	L	L	L	L	L
Heat Recovery	L	L	M	H	L	M	L	L	H	L	H	H	L	L
Energy Efficiency	M	M	M	H	H	M	H	M	H	M	M	M	M	H
	Yukon Flats						Yukon Koyukuk							

Table 13: Energy resource potential and certainty for community-scale projects

	McGrath	Nikolai	Takotna	Telida	Anvik	Grayling	Holy Cross	Shageluk	Dot Lake	Eagle	Healy Lake	Northway	Tanacross	Tetlin	Tok
Biomass	H	H	H	H	M	L	M	L	M	M	H	L	M	M	M
Geothermal	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
Hydro	L	L	L	L	L	L	L	L	H	M	M	L	H	H	H
Solar	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
Wind	L	L	L	L	L	L	L	L	M	L	L	L	M	M	M
Coal	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
Oil & Gas	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
Heat Recovery	L	M	M	M	H	H	H	L	L	L	L	M	L	L	M
Energy Efficiency	H	M	H	M	H	M	M	H	M	H	H	H	H	H	H
	Kuskokwim				Lower Yukon				Upper Tanana						

	Alatna	Allakaket	Bettles/Evensville	Hughes	Manley Hot Springs	Minto	Nenana	Rampart	Stevens Village	Tanana
Biomass	L	L	M	H	L	H	M	M	L	M
Geothermal	L	L	L	L	M	L	L	L	L	L
Hydro	L	L	L	M	L	M	L	M	L	M
Solar	H	H	H	H	H	H	M	H	H	H
Wind	L	L	L	L	L	L	M	L	L	M
Coal	L	L	L	L	L	L	M	M	L	L
Oil & Gas	L	L	L	L	L	L	L	L	L	L
Heat Recovery	L	L	H	H	M	H	L	M	M	M
Energy Efficiency	M	M	H	M	H	M	H	H	M	H
	Yukon Tanana									

Notes: Letters refer to resource potential: High (H), Medium (M), Low (L). Color indicates both potential and certainty (see color key). See Appendix B for an explanation of the criteria used in assessing resource potential.

Potential →	High	H _L	H _M	H _H
	Med	M _L	M _M	M _H
	Low	L _L	L _M	L _H
		Low	Med	High

Certainty →

The first letter in each square represents resource potential. The subscript indicates the level of certainty in the resource potential rating.

Solar
Energy Efficiency
Biomass
Heat Recovery



Investments in diesel
generator efficiency

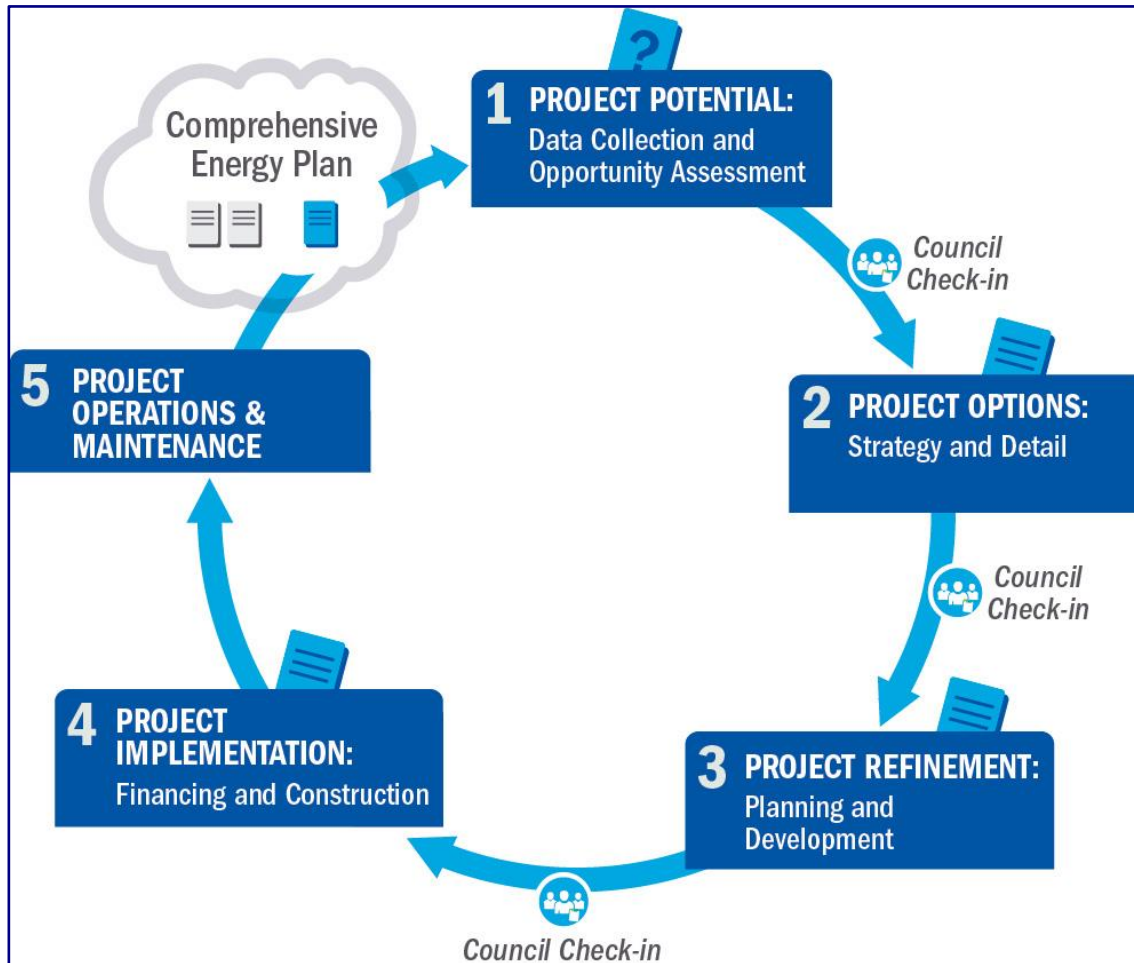


Energy Efficiency
Upgrades

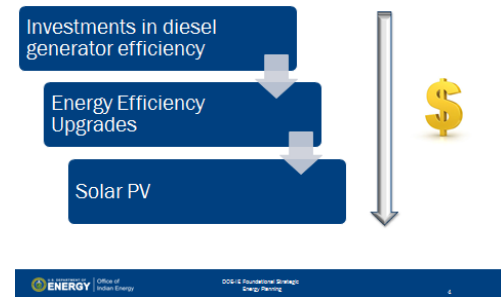


Solar PV

Project Development – The Five Step Process



Potential Energy Plan



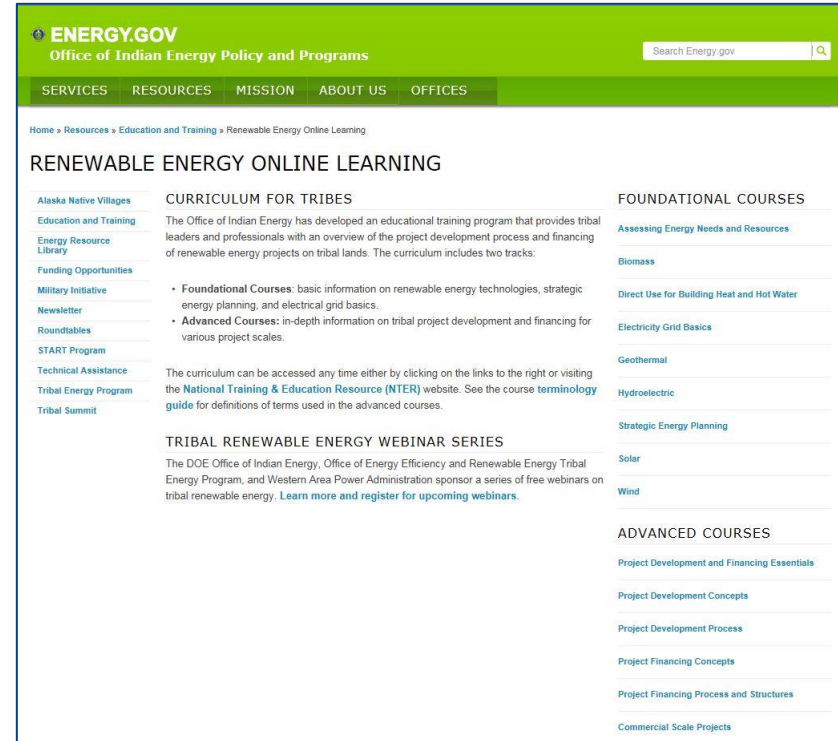
Resources: Tools and Technical Assistance

- Tools
 - <http://www.energy.gov/indianenergy/resources/energy-resource-library>
 - <http://www.energy.gov/indianenergy/resources/education-and-training>
- Technical Assistance and Support
 - Tribal Energy Program Technical Assistance
 - http://apps1.eere.energy.gov/tribalenergy/technical_assistance.cfm
 - <http://www.energy.gov/indianenergy/resources/technical-assistance>

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



The screenshot displays the 'RENEWABLE ENERGY ONLINE LEARNING' page on the ENERGY.GOV website. The page is structured with a green header, a navigation menu, and a main content area. The main content area is divided into three columns: a left sidebar with navigation links, a central text area, and a right sidebar with course categories. The central text area describes the 'CURRICULUM FOR TRIBES' and lists 'Foundational Courses' and 'Advanced Courses'. The right sidebar lists 'FOUNDATIONAL COURSES' and 'ADVANCED COURSES' with sub-links.

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RENEWABLE ENERGY ONLINE LEARNING

Alaska Native Villages
Education and Training
Energy Resource Library
Funding Opportunities
Military Initiative
Newsletter
Roundtables
START Program
Technical Assistance
Tribal Energy Program
Tribal Summit

CURRICULUM FOR TRIBES

The Office of Indian Energy has developed an educational training program that provides tribal leaders and professionals with an overview of the project development process and financing of renewable energy projects on tribal lands. The curriculum includes two tracks:

- **Foundational Courses:** basic information on renewable energy technologies, strategic energy planning, and electrical grid basics.
- **Advanced Courses:** in-depth information on tribal project development and financing for various project scales.

The curriculum can be accessed any time either by clicking on the links to the right or visiting the **National Training & Education Resource (NTER)** website. See the course **terminology guide** for definitions of terms used in the advanced courses.

TRIBAL RENEWABLE ENERGY WEBINAR SERIES

The DOE Office of Indian Energy, Office of Energy Efficiency and Renewable Energy Tribal Energy Program, and Western Area Power Administration sponsor a series of free webinars on tribal renewable energy. [Learn more and register for upcoming webinars.](#)

FOUNDATIONAL COURSES

- Assessing Energy Needs and Resources
- Biomass
- Direct Use for Building Heat and Hot Water
- Electricity Grid Basics
- Geothermal
- Hydroelectric
- Strategic Energy Planning
- Solar
- Wind

ADVANCED COURSES

- Project Development and Financing Essentials
- Project Development Concepts
- Project Development Process
- Project Financing Concepts
- Project Financing Process and Structures
- Commercial Scale Projects

energy.gov/indianenergy/curriculum