**Application Forms and Instructions**

This instruction page and the following grant application constitutes the Grant Application Form for Round 18 of the Renewable Energy Fund (REF). A separate application form is available for projects with a primary purpose of producing heat (see Request for Applications (RFA) Section 1.5). This is the standard form for all other projects, including projects that will produce heat and electricity. An electronic version of the RFA and both application forms is available online at: [2025 REF Application (akenergyauthority.org)](https://www.akenergyauthority.org/What-We-Do/Grants-Loans/Renewable-Energy-Fund/2025-REF-Application).

What follows are some basic information and instructions for this application:

* If you are applying for grants for more than one project, provide separate application forms for each project.
* Multiple phases (e.g. final design, construction) for the same project may be submitted as one application.
* If you are applying for grant funding for more than one phase of a project, provide milestones and grant budget for each phase of the project (see Sections 3.1 and 3.2.2).
* In order to ensure that grants provide sufficient benefit to the public, AEA may limit recommendations for grants to preliminary development phases in accordance with 3 Alaska Administrative Code (ACC) 107.605(1).
* If some work has already been completed on your project and you are requesting funding for an advanced phase, submit information sufficient to demonstrate that the preceding phases are completed and funding for an advanced phase is warranted*. Supporting documentation may include, but is not limited to, reports, conceptual or final designs, models, photos, maps, proof of site control, utility agreements, business and operation plans, power sale agreements, relevant data sets, and other materials. Please provide a list of supporting documents in Section 11 of this application and attach the documents to your application.*
* If you have additional information or reports you would like the Authority to consider in reviewing your application, either provide an electronic version of the document with your submission or reference a web link where it can be downloaded or reviewed. Please provide a list of additional information; including any web links, in Section 12 of this application and attach the documents to your application. For guidance on application best practices please refer to the resource-specific Best Practices Checklists; links to the checklists can be found in the appendices list at the end of the accompanying REF Round 18 RFA.
* In the Sections below, please enter responses in the spaces provided. You may add additional rows or space to the form to provide sufficient space for the information, or attach additional sheets if needed.
* If you need assistance with your application, please contact AEA’s Grants Manager by email at [grants@akenergyauthority.org](mailto:grants@akenergyauthority.org) or by phone at (907) 771-3039.

**REMINDER:**

* AEA is subject to the Public Records Act AS 40.25, and materials submitted to AEA may be subject to disclosure requirements under the act if no statutory exemptions apply.
* All applications received will be posted on the Authority web site after final recommendations are made to the legislature. Please submit resumes as separate PDFs if the applicant would like those excluded from the web posting of this application.
* In accordance with 3 AAC 107.630 (b) Applicants may request trade secrets or proprietary company data be kept confidential subject to review and approval by AEA. If you want information to be kept confidential the applicant must:
  + Request the information be kept confidential.
  + Clearly identify the information that is the trade secret or proprietary in their application.
  + Receive concurrence from the Authority that the information will be kept confidential. If the Authority determines it is not confidential, it will be treated as a public record in accordance with AS 40.25 or returned to the applicant upon request.

**SECTION 1 – APPLICANT INFORMATION**

*Please specify the legal grantee that will own, operate, and maintain the project upon completion.*

**Name** (*Name of utility, IPP, local government, or other government entity)*

**Tax ID #**

**Date of last financial statement audit:**

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| **Mailing Address:** | **Physical Address:** |
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| **Telephone:** | **Fax:** | **Email:** |
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**1.1 Applicant Point of Contact / Grants Coordinator**

**Name: Title:**

**Mailing Address:**

|  |  |  |
| --- | --- | --- |
| **Telephone:** | **Fax:** | **Email:** |
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| **1.1.1 Applicant Signatory Authority Contact Information** |

**Name: Title:**

**Mailing Address:**

|  |  |  |
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| **Telephone:** | **Fax:** | **Email:** |
|  |  |  |

**1.1.2 Applicant Alternate Points of Contact**

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Telephone:** | **Fax:** | **Email:** |
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**1.2 Applicant Minimum Requirements**

*Please check as appropriate. If applicants do not meet the minimum requirements, the application will be rejected.*

**1.2.1 Applicant Type**

An electric utility holding a certificate of public convenience and necessity under AS 42.05

CPCN #\_\_\_\_\_\_, or

An independent power producer in accordance with 3 AAC 107.695 (a) (1)

CPCN #\_\_\_\_\_\_, or

A local government, or

A governmental entity (which includes tribal councils and housing authorities)

**Additional minimum requirements**

**1.2.2** Attached to this application is formal approval and endorsement for the project by the applicant’s board of directors, executive management, or other governing authority. If the applicant is a collaborative grouping, a formal approval from each participant’s governing authority is necessary. **(Indicate yes by checking the box)**

**1.2.3** As an applicant, we have administrative and financial management systems and follow procurement standards that comply with the standards set forth in the grant agreement (Section 3 of the RFA). **(Indicate yes by checking the box)**

**1.2.4** If awarded the grant, we can comply with all terms and conditions of the award as identified in the Standard Grant Agreement template at [2025 REF Application (akenergyauthority.org)](https://www.akenergyauthority.org/What-We-Do/Grants-Loans/Renewable-Energy-Fund/2025-REF-Application). (Any exceptions should be clearly noted and submitted with the application.) **(Indicate yes by checking the box)**

**1.2.5** We intend to own and operate any project that may be constructed with grant funds for the benefit of the general public. If no please describe the nature of the project and who will be the primary beneficiaries. **(Indicate yes by checking the box)**

**SECTION 2 – PROJECT SUMMARY**

**2.1 Project Title**

*Provide a 4 to 7 word title for your project. Type in the space below.*

**2.2 Project Location**

**2.2.1 Location of Project – Latitude and longitude (preferred), street address, or community name.**

*Latitude and longitude coordinates may be obtained from* [*Google Maps*](http://maps.google.com/) *by finding you project’s location on the map and then right clicking with the mouse and selecting “What is here? The coordinates will be displayed in the Google search window above the map in a format as follows: 61.195676.-149.898663. If you would like assistance obtaining this information, please contact AEA’s Grants Manager* by email at [grants@akenergyauthority.org](mailto:grants@akenergyauthority.org) or by phone at (907) 771-3039.

|  |  |  |  |
| --- | --- | --- | --- |
| **Latitude** |  | **Longitude** |  |

[Other description of location]

**2.2.2 Community benefiting – Name(s) of the community or communities that will be the beneficiaries of the project.**

**2.3 Project Type**

*Please check as appropriate.*

**2.3.1 Renewable Resource Type**

Wind  Biomass or Biofuels (excluding heat-only)

Hydro, Including Run of River  Hydrokinetic

Geothermal, Excluding Heat Pumps  Transmission of Renewable Energy

Solar Photovoltaic  Storage of Renewable

Other (Describe)  Small Natural Gas

**2.3.2 Proposed Grant Funded Phase(s) for this Request *(Check all that apply)***

**Pre-Construction Construction**

Reconnaissance  Final Design and Permitting

Feasibility and Conceptual Design  Construction

**2.4 Project Description**

*Provide a brief, one-paragraph description of the proposed project.*

**2.5 Scope of Work**

Provide a short narrative for the scope of work detailing the tasks to be performed under this funding request. This should include work paid for by grant funds and matching funds or performed as in-kind match.

**2.6 Previous REF Applications for the Project**

See Section 1.15 of the RFA for the maximum per project cumulative grant award amount

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Round Submitted | Title of application | Application #, if known | Did you receive a grant? Y/N | Amount of REF grant awarded ($) |
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**SECTION 3 – Project Management, Development, and Operation**

**3.1 Schedule and Milestones**

Please fill out the schedule below (or attach a similar sheet) for the work covered by this funding request. Be sure to identify key tasks and decision points, including go/no go decisions, in your project along with estimated start and end dates for each of the milestones and tasks. Please clearly identify the beginning and ending of all phases (I. Reconnaissance, II. Feasibility and Conceptual Design, III. Final Design and Permitting, and IV. Construction) of your proposed project. See the RFA, Sections 2.3-2.6 for the recommended milestones for each phase. Add additional rows as needed.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Task #** | **Milestones** | **Tasks** | **Start Date** | **End Date** | **Deliverables** |
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**3.2 Budget**

**3.2.1 Funding Sources**

Indicate the funding sources for the phase(s) of the project applied for in this funding request.

|  |  |
| --- | --- |
| **Grant funds requested in this application** | **$** |
| **Cash match to be provideda** | **$** |
| **In-kind match to be provideda** | **$** |
| **Energy efficiency match providedb** | **$** |
| **Total costs for project phase(s) covered in application (sum of above)** | **$** |
| Describe your financial commitment to the project and the source(s) of match. Indicate whether these matching funds are secured or pending future approvals. Describe the impact, if any, that the timing of additional funds would have on the ability to proceed with the grant. | |
| *a Attach documentation for proof (see Section 1.18 of the Request for Applications)*  *b See Section 8.2 of this application and Section 1.18 of the RFA for requirements for Energy Efficiency Match.* | |

**3.2.2 Cost Overruns**

Describe the plan to cover potential cost increases or shortfalls in funding.

**3.2.3 Total Project Costs**

Indicate the anticipated total cost by phase of the project (including all funding sources). Use actual costs for completed phases. Indicate if the costs were actual or estimated.

|  |  |  |
| --- | --- | --- |
| **Reconnaissance** | ***[Actual/Estimated]*** | **$** |
| **Feasibility and Conceptual Design** | ***[Actual/Estimated]*** | **$** |
| **Final Design and Permitting** | ***[Actual/Estimated]*** | **$** |
| **Construction** | ***[Actual/Estimated]*** | **$** |
| **Total Project Costs (sum of above)** | ***Estimated*** | **$** |
| **Metering/Tracking Equipment** *[not included in project cost]* | ***Estimated*** | **$** |

**3.2.4 Funding Subsequent Phases**

If subsequent phases are required beyond the phases being applied for in this application, describe the anticipated sources of funding and the likelihood of receipt of those funds.

* State and/or federal grants
* Loans, bonds, or other financing options
* Additional incentives (i.e. tax credits)
* Additional revenue streams (i.e. green tag sales or other renewable energy subsidies or programs that might be available)

**3.2.3 Budget Forms**

Applications MUST include a separate worksheet for each project phase that was identified in Section 2.3.2 of this application — I. Reconnaissance, II. Feasibility and Conceptual Design, III. Final Design and Permitting, and IV. Construction. Please use the tables provided below to detail your proposed project’s total budget. Be sure to use one table for each phase of your project, and delete any unnecessary tables. The milestones and tasks should match those listed in 3.1 above.

*If you have any question regarding how to prepare these tables or if you need assistance preparing the application please feel free to contact AEA’s Grants Manager by email at* [*grants@akenergyauthority.org*](mailto:grants@akenergyauthority.org) *or by phone at (907) 771-3039.*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Phase 1 — Reconnaissance** | | | | | |
| **Milestone or Task** | **Anticipated Completion Date** | **RE- Fund**  **Grant Funds** | **Grantee Matching**  **Funds** | **Source of Matching Funds:**  **Cash/In-kind/Federal Grants/Other State Grants/Other** | **TOTALS** |
| *(List milestones based on phase and type of project. See Sections 2.3 thru 2.6 of the RFA )* |  | $ | $ |  | $ |
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| **TOTALS** |  | $ | $ |  | $ |
| **Budget Categories:** | |  |  |  |  |
| Direct Labor & Benefits |  | $ | $ |  | $ |
| Travel & Per Diem |  | $ | $ |  | $ |
| Equipment |  | $ | $ |  | $ |
| Materials & Supplies |  | $ | $ |  | $ |
| Contractual Services |  | $ | $ |  | $ |
| Construction Services |  | $ | $ |  | $ |
| Other |  | $ | $ |  | $ |
| **TOTALS** |  | $ | $ |  | $ |

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| **Phase 2 — Feasibility and Conceptual Design** | | | | | |
| **Milestone or Task** | **Anticipated Completion Date** | **RE- Fund**  **Grant Funds** | **Grantee Matching**  **Funds** | **Source of Matching Funds:**  **Cash/In-kind/Federal Grants/Other State Grants/Other** | **TOTALS** |
| *(List milestones based on phase and type of project. See Sections 2.3 thru 2.6 of the RFA )* |  | $ | $ |  | $ |
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| **Budget Categories:** | |  |  |  |  |
| Direct Labor & Benefits |  | $ | $ |  | $ |
| Travel & Per Diem |  | $ | $ |  | $ |
| Equipment |  | $ | $ |  | $ |
| Materials & Supplies |  | $ | $ |  | $ |
| Contractual Services |  | $ | $ |  | $ |
| Construction Services |  | $ | $ |  | $ |
| Other |  | $ | $ |  | $ |
| **TOTALS** |  | $ | $ |  | $ |

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| **Phase 3 —** **Final Design and Permitting** | | | | | |
| **Milestone or Task** | **Anticipated Completion Date** | **RE- Fund**  **Grant Funds** | **Grantee Matching**  **Funds** | **Source of Matching Funds:**  **Cash/In-kind/Federal Grants/Other State Grants/Other** | **TOTALS** |
| *(List milestones based on phase and type of project. See Sections 2.3 thru 2.6 of the RFA )* |  | $ | $ |  | $ |
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| **TOTALS** |  | $ | $ |  | $ |
| **Budget Categories:** | |  |  |  |  |
| Direct Labor & Benefits |  | $ | $ |  | $ |
| Travel & Per Diem |  | $ | $ |  | $ |
| Equipment |  | $ | $ |  | $ |
| Materials & Supplies |  | $ | $ |  | $ |
| Contractual Services |  | $ | $ |  | $ |
| Construction Services |  | $ | $ |  | $ |
| Other |  | $ | $ |  | $ |
| **TOTALS** |  | $ | $ |  | $ |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Phase 4 —** **Construction** | | | | | |
| **Milestone or Task** | **Anticipated Completion Date** | **RE- Fund**  **Grant Funds** | **Grantee Matching**  **Funds** | **Source of Matching Funds:**  **Cash/In-kind/Federal Grants/Other State Grants/Other** | **TOTALS** |
| *(List milestones based on phase and type of project. See Sections 2.3 thru 2.6 of the RFA )* |  | $ | $ |  | $ |
|  |  | $ | $ |  | $ |
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| **TOTALS** |  | $ | $ |  | $ |
| **Budget Categories:** | |  |  |  |  |
| Direct Labor & Benefits |  | $ | $ |  | $ |
| Travel & Per Diem |  | $ | $ |  | $ |
| Equipment |  | $ | $ |  | $ |
| Materials & Supplies |  | $ | $ |  | $ |
| Contractual Services |  | $ | $ |  | $ |
| Construction Services |  | $ | $ |  | $ |
| Other |  | $ | $ |  | $ |
| **TOTALS** |  | $ | $ |  | $ |

**3.2.4 Cost Justification**

Indicate the source(s) of the cost estimates used for the project budget, including costs for future phases not included in this application.

**3.3 Project Communications**

**3.3.1 Project Progress Reporting**

Describe how you plan to monitor the progress of the project and keep AEA informed of the status. Who will be responsible for tracking the progress? What tools and methods will be used to track progress?

**3.3.2 Financial Reporting**

Describe the controls that will be utilized to ensure that only costs that are reasonable, ordinary and necessary will be allocated to this project. Also discuss the controls in place that will ensure that no expenses for overhead, or any other unallowable costs will be requested for reimbursement from the REF Grant Program.

**SECTION 4 – Qualifications and Experience**

**4.1 Project Team**

Include resumes for known key personnel and contractors, including all functions below, as an attachment to your application. In the electronic submittal, please submit resumes as separate PDFs if the applicant would like those excluded from the web posting of this application.

**4.1.1 Project Manager**

Indicate who will be managing the project for the Grantee and include contact information. If the applicant does not have a project manager indicate how you intend to solicit project management support. If the applicant expects project management assistance from AEA or another government entity, state that in this section.

**4.1.2 Project Accountant**

Indicate who will be performing the accounting of this project for the grantee. If the applicant does not have a project accountant indicate how you intend to solicit financial accounting support.

**4.1.3 Expertise and Resources**

Describe the project team including the applicant, partners, and contractors.

For each member of the project team, indicate:

* the milestones/tasks in 3.1 they will be responsible for;
* the knowledge, skills, and experience that will be used to successfully deliver the tasks;
* how time and other resource conflicts will be managed to successfully complete the task.

If contractors have not been selected to complete the work, provide reviewers with sufficient detail to understand the applicant’s capacity to successfully select contractors and manage complex contracts.

**4.2 Local Workforce**

Describe how the project will use local labor or train a local labor workforce.

**SECTION 5 – TECHNICAL FEASIBILITY**

**5.1 Resource Availability**

**5.1.1 Assessment of Proposed Energy Resource**

Describe the potential extent/amount of the energy resource that is available, including average resource availability on an annual basis. For pre-construction applications, describe the resource to the extent known. For design and permitting or construction projects, please provide feasibility documents, design documents, and permitting documents (if applicable) as attachments to this application (See Section 11). Likelihood of the resource being available over the life of the project. See the “Resource Assessment” section of the appropriate Best Practice Checklist for additional guidance.

**5.1.2 Alternatives to Proposed Energy Resource**

Describe the pros and cons of your proposed energy resource vs. other alternatives that may be available for the market to be served by your project.

**5.1.3 Permits**

Provide the following information as it may relate to permitting and how you intend to address outstanding permit issues. See the “Environmental and Permitting Risks” section of the appropriate Best Practice Checklist for additional guidance.

* List of applicable permits
* Anticipated permitting timeline
* Identify and describe potential barriers including potential permit timing issues, public opposition that may result in difficulty obtaining permits, and other permitting barriers

**5.2 Project Site**

Describe the availability of the site and its suitability for the proposed energy system. Identify potential land ownership issues, including whether site owners have agreed to the project or how you intend to approach land ownership and access issues. See the “Site control” section of the appropriate Best Practice Checklist for additional guidance.

**5.3 Project Technical & Environmental Risk**

**5.3.1 Technical Risk**

Describe potential technical risks and how you would address them.

* Which tasks are expected to be most challenging?
* How will the project team reduce the risk of these tasks?
* What internal controls will be put in place to limit and deal with technical risks?

See the “Common Planning Risks” section of the appropriate Best Practice Checklist for additional guidance.

**5.3.2 Environmental Risk**

Explain whether the following environmental and land use issues apply, and if so which project team members will be involved and how the issues will be addressed. See the “Environmental and Permitting Risks” section of the appropriate Best Practice Checklist for additional guidance.

* Threatened or endangered species
* Habitat issues
* Wetlands and other protected areas
* Archaeological and historical resources
* Land development constraints
* Telecommunications interference
* Aviation considerations
* Visual, aesthetics impacts
* Identify and describe other potential barriers

**5.4 Technical Feasibility of Proposed Energy System**

In this section you will describe and give details of the existing and proposed systems. The information for existing system will be used as the baseline the proposal is compared to and also used to make sure that proposed system can be integrated.

Only complete sections applicable to your proposal. If your proposal only generates electricity, you can remove the sections for thermal (heat) generation.

**5.4.1 Basic Operation of Existing Energy System**

Describe the basic operation of the existing energy system including: description of control system; spinning reserve needs and variability in generation (any high loads brought on quickly); and current voltage, frequency, and outage issues across system. See the “Understanding the Existing System” section of the appropriate Best Practice Checklist for additional guidance.

|  |
| --- |
| **5.4.2 Existing Energy Generation Infrastructure and Production**  In the following tables, only fill in areas below applicable to your project. You can remove extra tables. If you have the data below in other formats, you can attach them to the application (see Section 11). |
|  |

|  |
| --- |
| * + - 1. Existing Power Generation Units |
| Include for each unit include: resource/fuel, make/model, design capacity (kW), minimum operational load (kW), RPM, electronic/mechanical fuel injection, make/model of genset controllers, hours on genset |
| Unit 1: |
| Unit 2: |
| Unit 3: |
| Unit 4: |
| Unit 5: |
| Unit 6: |
|  |

|  |  |
| --- | --- |
| Is there operational heat recovery? (Y/N) If yes estimated annual displaced heating fuel (gallons) |  |

**5.4.2.2 Existing Distribution System**

Describe the basic elements of the distribution system. Include the capacity of the step-up transformer at the powerhouse, the distribution voltage(s) across the community, any transmission voltages, and other elements that will be affected by the proposed project.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| * + - 1. Existing Thermal Generation Units *(if applicable to your project)* | | | | | | | |
| Generation unit | Resource/  Fuel type | Design capacity (MMBtu/hr) | Make | Model | Average annual efficiency | Year Installed | Hours |
|  |  |  |  |  |  |  |  |
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| * + - 1. **O&M and replacement costs for existing units** | Power Generation | Thermal Generation |
| i. Annual O&M cost for labor |  |  |
| ii. Annual O&M cost for non-labor |  |  |
| iii. Replacement schedule and cost for existing units |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| * + - 1. Annual Electricity Production and Fuel Consumption (Existing System)   Use most recent year. Replace the section (Type 1), (Type 2), and (Type 3) with generation sources | | | | | | | |
| Month | Generation (Type 1)  (kWh) | Generation (Type 2)  (kWh) | Generation (Type 3)  (kWh) | Fuel Consumption  (Diesel-Gallons) | Fuel Consumption  [Other] | Peak Load | Minimum Load | |
| January |  |  |  |  |  |  |  | |
| February |  |  |  |  |  |  |  | |
| March |  |  |  |  |  |  |  | |
| April |  |  |  |  |  |  |  | |
| May |  |  |  |  |  |  |  | |
| June |  |  |  |  |  |  |  | |
| July |  |  |  |  |  |  |  | |
| August |  |  |  |  |  |  |  | |
| September |  |  |  |  |  |  |  | |
| October |  |  |  |  |  |  |  | |
| November |  |  |  |  |  |  |  | |
| December |  |  |  |  |  |  |  | |
| Total |  |  |  |  |  |  |  | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| * + - 1. Annual Heating Fuel Consumption (Existing System)   Use most recent year. Include only if your project affects the recovered heat off the diesel genset or will include electric heat loads. Only include heat loads affected by the project. | | | | | | |
| Month | Diesel  (Gallons) | Electricity | Propane  (Gallons) | Coal  (Tons) | Wood  (Cords, green tons, dry tons) | Other |
| January |  |  |  |  |  |  |
| February |  |  |  |  |  |  |
| March |  |  |  |  |  |  |
| April |  |  |  |  |  |  |
| May |  |  |  |  |  |  |
| June |  |  |  |  |  |  |
| July |  |  |  |  |  |  |
| August |  |  |  |  |  |  |
| September |  |  |  |  |  |  |
| October |  |  |  |  |  |  |
| November |  |  |  |  |  |  |
| December |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |

**5.4.3 Future Trends**

Describe the anticipated energy demand in the community, or whatever will be affected by the project, over the life of the project. Explain how the forecast was developed and provide year by year forecasts. As appropriate, include expected changes to energy demand, peak load, seasonal variations, etc. that will affect the project.

**5.4.4 Proposed System Design**

Provide the following information for the proposed renewable energy system:

* A description of renewable energy technology specific to project location
* The total proposed capacity and a description of how the capacity was determined
* Integration plan, including upgrades needed to existing system(s) to integrate renewable energy system: Include a description of the controls, storage, secondary loads, distribution upgrades that will be included in the project
* Civil infrastructure that will be completed as part of the project—buildings, roads, etc.
* Include what backup and/or supplemental system will be in place

See the “Proposed System Design” section of the appropriate Best Practice Checklist for additional guidance.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| * + - 1. Proposed Power Generation Units | | | | | | | |
| Unit # | Resource/  Fuel type | Design capacity (kW) | Make | Model | Expected capacity factor | Expected life (years) | Expected Availability |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| * + - 1. Proposed Thermal Generation Units *(if applicable)* | | | | | | |
| Generation unit | Resource/  Fuel type | Design capacity (MMBtu/hr) | Make | Model | Expected Average annual efficiency | Expected life |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

**5.4.5 Basic Operation of Proposed Energy System**

* To the best extent possible, describe how the proposed energy system will operate: When will the system operate, how will the system integrate with the existing system, how will the control systems be used, etc.
* When and how will the backup system(s) be expected to be used

See the “Proposed System Design” section of the appropriate Best Practice Checklist for additional guidance.

|  |  |
| --- | --- |
| * + - 1. Expected Capacity Factor | % |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| * + - 1. Annual Electricity Production and Fuel Consumption (Proposed System) | | | | | | | |
| Month | Generation  (Proposed System)  (kWh) | Generation  (Type 2)  (kWh) | Generation  (Type 3)  (kWh) | Fuel Consumption  (Diesel-Gallons) | Fuel Consumption  [Other] | Secondary load  (kWh) | Storage  (kWh) | |
| January |  |  |  |  |  |  |  | |
| February |  |  |  |  |  |  |  | |
| March |  |  |  |  |  |  |  | |
| April |  |  |  |  |  |  |  | |
| May |  |  |  |  |  |  |  | |
| June |  |  |  |  |  |  |  | |
| July |  |  |  |  |  |  |  | |
| August |  |  |  |  |  |  |  | |
| September |  |  |  |  |  |  |  | |
| October |  |  |  |  |  |  |  | |
| November |  |  |  |  |  |  |  | |
| December |  |  |  |  |  |  |  | |
| Total |  |  |  |  |  |  |  | |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 5.4.5.3 Annual Heating Fuel Consumption (Proposed System) | | | | | | |
| Month | Diesel  (Gallons) | Electricity | Propane  (Gallons) | Coal  (Tons) | Wood  (Cords, green tons, dry tons) | Other |
| January |  |  |  |  |  |  |
| February |  |  |  |  |  |  |
| March |  |  |  |  |  |  |
| April |  |  |  |  |  |  |
| May |  |  |  |  |  |  |
| June |  |  |  |  |  |  |
| July |  |  |  |  |  |  |
| August |  |  |  |  |  |  |
| September |  |  |  |  |  |  |
| October |  |  |  |  |  |  |
| November |  |  |  |  |  |  |
| December |  |  |  |  |  |  |
| Total |  |  |  |  |  |  |

**5.4.6 Proposed System Operating and Maintenance (O&M) Costs**

O&M costs can be estimated in two ways for the standard application. Most proposed renewable energy projects will fall under Option 1 because the new resource will not allow for diesel generation to be turned off. Some projects may allow for diesel generation to be turned off for periods of time; these projects should choose Option 2 for estimating O&M.

|  |  |
| --- | --- |
| **Option 1**: **Diesel generation ON**  *For projects that do not result in shutting down diesel generation there is assumed to be no impact on the base case O&M. Please indicate the estimated annual O&M cost associated with the proposed renewable project.* | $ |
| **Option 2: Diesel generation OFF**  *For projects that will result in shutting down diesel generation please estimate:*   1. *Annual non-fuel savings of shutting off diesel generation* 2. *Estimated hours that diesel generation will be off per year.* 3. *Annual O&M costs associated with the proposed renewable project.* | 1. $  2. Hours diesel OFF/year:  3. $ |

**5.4.7 Fuel Costs**

Estimate annual cost for all applicable fuel(s) needed to run the proposed system (Year 1 of operation)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Diesel  (Gallons) | Electricity | Propane  (Gallons) | Coal  (Tons) | Wood | Other |
| Unit cost ($) |  |  |  |  |  |  |
| Annual Units |  |  |  |  |  |  |
| Total Annual cost ($) |  |  |  |  |  |  |

**5.5 Performance and O&M Reporting**

*For construction projects only*

**5.5.1 Metering Equipment**

Please provide a short narrative, and cost estimate, identifying the metering equipment that will be used to comply with the operations reporting requirement identified in Section 3.15 of the Request for Applications.

**5.5.2 O&M reporting**

Please provide a short narrative about the methods that will be used to gather and store reliable operations and maintenance data, including costs, to comply with the operations reporting requirement identified in Section 3.15 of the Request for Applications

**SECTION 6 – ECONOMIC FEASIBILITY AND BENEFITS**

**6.1 Economic Feasibility**

**6.1.1 Economic Benefit**

|  |  |  |
| --- | --- | --- |
|  | Annual | Lifetime |
| Anticipated Diesel Fuel Displaced for Power Generation (gallons) |  |  |
| Anticipated Fuel Displaced for Heat (gallons) |  |  |
| Total Fuel displaced (gallons) |  |  |
|  |  |  |
| Anticipated Diesel Fuel Displaced for Power Generation ($) |  |  |
| Anticipated Fuel Displaced for Heat ($) |  |  |
| Anticipated Power Generation O&M Cost Savings |  |  |
| Anticipated Thermal Generation O&M Cost Savings |  |  |
| Total Other costs savings (taxes, insurance, etc.) |  |  |
| Total Fuel, O&M, and Other Cost Savings |  |  |

**6.1.2 Economic Benefit**

Explain the economic benefits of your project. Include direct cost savings and other economic benefits, and how the people of Alaska will benefit from the project. Note that additional revenue sources (such as tax credits or green tags) to pay for operations and/or financing, will not be included as economic benefits of the project.

Where appropriate, describe the anticipated energy cost in the community, or whatever will be affected by the project, over the life of the project. Explain how the forecast was developed and provide year-by-year forecasts

*The economic model used by AEA is available at* [2025 REF Application (akenergyauthority.org)](https://www.akenergyauthority.org/What-We-Do/Grants-Loans/Renewable-Energy-Fund/2025-REF-Application). *This economic model may be used by applicants but is not required. The final benefit/cost ratio used will be derived from the AEA model to ensure a level playing field for all applicants. If used, please submit the model with the application.*

**6.1.3 Economic Risks**

Discuss potential issues that could make the project uneconomic to operate and how the project team will address the issues. Factors may include:

* Low prices for diesel and/or heating oil
* Other projects developed in community
* Reductions in expected energy demand: Is there a risk of an insufficient market for energy produced over the life of the project.
* Deferred and/or inadequate facility maintenance
* Other factors

**6.1.4 Public Benefit for Projects with Direct Private Sector Sales**

For projects that include direct sales of power to private sector businesses (sawmills, cruise ships, mines, etc.), please provide a brief description of the direct and indirect public benefits derived from the project as well as the private sector benefits and complete the table below. See Section 1.6 in the Request for Applications for more information.

|  |  |
| --- | --- |
| Renewable energy resource availability (kWh per month) |  |
| Estimated direct sales to private sector businesses (kWh) |  |
| Revenue for displacing diesel generation for use at private sector businesses ($) |  |
| Estimated sales for use by the Alaskan public (kWh) |  |
| Revenue for displacing diesel generation for use by the Alaskan public ($) |  |
|  | |

**6.2 Other Public Benefit**

*Describe the non-economic public benefits to Alaskans over the lifetime of the project. For the purpose of evaluating this criterion, public benefits are those benefits that would be considered unique to a given project and not generic to any renewable resource. For example, decreased greenhouse gas emission, stable pricing of fuel source, won’t be considered under this category.*

*Some examples of other public benefits include:*

* *The project will result in developing infrastructure (roads, trails, pipes, power lines, etc.) that can be used for other purposes*
* *The project will result in a direct long-term increase in jobs (operating, supplying fuel, etc.)*
* *The project will solve other problems for the community (waste disposal, food security, etc.)*
* *The project will generate useful information that could be used by the public in other parts of the state*
* *The project will promote or sustain long-term commercial economic development for the community*

**SECTION 7 – SUSTAINABILITY**

Describe your plan for operating the completed project so that it will be sustainable throughout its economic life.

At a minimum for construction projects, a business and operations plan should be attached and the applicant should describe how it will be implemented. See Section 11.

**7.1.1 Operation and Maintenance**

Demonstrate the capacity to provide for the long-term operation and maintenance of the proposed project for its expected life

* Provide examples of success with similar or related long-term operations
* Describe the key personnel that will be available for operating and maintaining the infrastructure.
* Describe the training plan for existing and future employees to become proficient at operating and maintaining the proposed system.
* Describe the systems that will be used to track necessary supplies
* Describe the system will be used to ensure that scheduled maintenance is performed
  + 1. **Financial Sustainability**
* Describe the process used (or propose to use) to account for operational and capital costs.
* Describe how rates are determined (or will be determined). What process is required to set rates?
* Describe how you ensure that revenue is collected.
* If you will not be selling energy, explain how you will ensure that the completed project will be financially sustainable for its useful life.
  + - 1. **Revenue Sources**

Briefly explain what if any effect your project will have on electrical rates in the proposed benefit area over the life of the project. If there is expected to be multiple rates for electricity, such as a separate rate for intermittent heat, explain what the rates will be and how they will be determined

Collect sufficient revenue to cover operational and capital costs

* What is the expected cost-based rate (as consistent with RFA requirements)
* If you expect to have multiple rate classes, such as excess electricity for heat, explain what those rates are expected to be and how those rates account for the costs of delivering the energy (see AEA’s white paper on excess electricity for heat).
* Annual customer revenue sufficient to cover costs
* Additional incentives (i.e. tax credits)
* Additional revenue streams (i.e. green tag sales or other renewable energy subsidies or programs that might be available)

**7.1.2.2 Power Purchase/Sale**

The power purchase/sale information should include the following:

* Identification of potential power buyer(s)/customer(s)
* Potential power purchase/sales price - at a minimum indicate a price range (consistent with the Section 3.16 of the RFA)

Identify the potential power buyer(s)/customer(s) and anticipated power purchase/sales price range. Indicate the proposed rate of return from the grant-funded project. Include letters of support or power purchase agreement from identified customers.

**SECTION 8 – PROJECT READINESS**

**8.1 Project Preparation**

Describe what you have done to prepare for this award and how quickly you intend to proceed with work once your grant is approved.

Specifically address your progress towards or readiness to begin, at a minimum, the following:

* The phase(s) that must be completed prior to beginning the phase(s) proposed in this application
* The phase(s) proposed in this application
* Obtaining all necessary permits
* Securing land access and use for the project
* Procuring all necessary equipment and materials

Refer to the RFA and/or the pre-requisite checklists for the required activities and deliverables for each project phase. Please describe below and attach any required documentation.

**8.2 Demand- or Supply-Side Efficiency Upgrades**

If you have invested in energy efficiency projects that will have a positive impact on the proposed project, and have chosen to not include them in the economic analysis, applicants should provide as much documentation as possible including:

1. Explain how it will improve the success of the RE project
2. Energy efficiency pre and post audit reports, or other appropriate analysis,
3. Invoices for work completed,
4. Photos of the work performed, and/or
5. Any other available verification such as scopes of work, technical drawings, and payroll for work completed internally.

**SECTION 9 – LOCAL SUPPORT AND OPPOSITION**

Describe local support **and opposition**, known or anticipated, for the project. **Include letters, resolutions, or other documentation** of local support from the community that would benefit from this project. Provide letters of support, memorandum of understandings, cooperative agreements between the applicant, the utility, local government and project partners. **The documentation of support must be dated within one year of the RFA date of July 14, 2025.** Please note that letters of support from legislators will not count toward this criterion.

**SECTION 10 – COMPLIANCE WITH OTHER AWARDS**

Identify other grants that may have been previously awarded to the Applicant by AEA for this or any other project. Describe the degree you have been able to meet the requirements of previous grants including project deadlines, reporting, and information requests.

**SECTION 11 – LIST OF SUPPORTING DOCUMENTATION FOR PRIOR PHASES**

In the space below, please provide a list of additional documents attached to support completion of prior phases.

**SECTION 12 – LIST OF ADDITIONAL DOCUMENTATION SUBMITTED FOR CONSIDERATION**

In the space below, please provide a list of additional information submitted for consideration.

**SECTION 14 – ADDITIONAL DOCUMENTATION AND CERTIFICATION**

**SUBMIT THE FOLLOWING DOCUMENTS WITH YOUR APPLICATION:**

1. **Contact information and resumes of Applicant’s Project Manager, Project Accountant(s), key staff, partners, consultants, and suppliers per application form Section 3.1, 3.4 & 3.6.**

Applicants are asked to provide resumes submitted with applications in separate electronic documents if the individuals do not want their resumes posted to the project web site.

1. **Letters or resolutions demonstrating local support per application form Section 9.**
2. **For projects involving heat: Most recent invoice demonstrating the cost of heating fuel for the building(s) impacted by the project.**
3. **A completed Authorized Signers Form, located under Application Documents on AEA’s website** [2025 REF Application (akenergyauthority.org)](https://www.akenergyauthority.org/What-We-Do/Grants-Loans/Renewable-Energy-Fund/2025-REF-Application)**.**
4. **Governing Body Resolution or other formal action taken by the applicant’s governing body or management per RFA Section 1.4 that:**
   * **Commits the organization to provide the matching resources for project at the match amounts indicated in the application.**
   * **Authorizes the individual who signs the application has the authority to commit the organization to the obligations under the grant.**
   * **Provides as point of contact to represent the applicant for this application.**
   * **Certifies the applicant is in compliance with applicable federal, state, and local, laws including existing credit and federal tax obligations.**
5. **An electronic version of the entire application, per RFA Section 1.7.**
6. **CERTIFICATION**

|  |  |
| --- | --- |
| **The undersigned certifies that this application for a renewable energy grant is truthful and correct, and that the applicant is in compliance with, and will continue to comply with, all federal and state laws including existing credit and federal tax obligations and that they can indeed commit the entity to these obligations.** | |
| **Print Name** |  |
| **Signature** |  |
| **Title** |  |
| **Date** |  |