**Electrification for Resilient Decarbonized Communities**

**Template for Seed Grants**

**About this template** - This template is intended to help applicants in providing the ERDC Scientific Committee and the external evaluators with the necessary information to evaluate their proposal based on ERDC evaluation criteria and provide recommendations to the ERDC Advisory Board. The proposal should be comprehensive yet concise. Please include references in Annex 1. For more information refer to the guidelines for this Call.

1. Executive Summary. (up to 1 page excluding Section 1.4)

The intent of this section is to provide high-level information to understand the context and the scope of the proposal.

* 1. Project title and key words

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| Title |
| Key words (minimum 5):  |

* 1. ERDC Theme

Which theme or platform does this project address? Indicate a primary theme/platform and optionally secondary theme/platform.

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| --- | --- |
| Theme 1: Smart, sustainable, and healthy built environment |  |
| Theme 2: Resilient community energy and transportation systems based on renewables |  |
| Theme 3: Planning and governance for social equity and citizen engagement |  |
| Platform A: Electrification |  |
| Platform B: Digitalization and IoT |  |
| Platform C: Living lab and knowledge mobilization |  |

* 1. Lay summary for general public

Explain contributions to electrification and to decarbonized resilient communities, identify the technology gaps and social constraints, state the project objectives, and explain the solution(s) foreseen. This paragraph will be used for public communications.

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* 1. List of applicants. Add lines as required.

Identify all the academic and non-academic partners, if any and their contributions to the project

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| --- | --- | --- | --- | --- |
| **Affiliation** | **Type** | **Planned****Expenditures****Year 1** | **Planned****Expenditures****Year 2** | **Planned****Contributions****Total** |
| Cash | In-Kind | Cash | In-Kind | Cash | In-Kind |
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|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  | Add rows as needed |
| ERDC expected Contribution |  |  |  |  |  |  |
| Total for the project |  |  |  |  |  |  |

1. Research Team. (up to 2 pages excluding Section 2.1)

The intent of this section is to provide enough information to assess the expertise of the team members and their specific contributions of team members to the proposal.

* 1. Applicant information (Academic and non-academic; list Principal Applicant first; duplicate Table as required)

|  |  |
| --- | --- |
| Affiliation |  |
| Principal Investigator (PI) or Co-PI or collaborator |  |
| Telephone number |  |
| Email address |  |
| Preferred language of communication | [ ]  English [ ]  Français  |

* 1. Contribution to project

Describe the role (technical and/or management) played by each team member and their contribution to the project.

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| PI: Co-PIs:Collaborators: |

* 1. Partnerships (up to 1 page)

Explain how the research builds on existing partnerships (if applicable), how the partnerships reinforce the project and how this could lead to new partnerships in preparation for the next call for proposal.

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* 1. EDI Strategy (up to 1 page)

Explain how EDI principles are considered in 1) recruitment; 2) retention of the team members and 3) HQPs involved in the project. Explain how the technological or social innovation once deployed would be inclusive.

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1. Proposal (up to 2 pages)

The intent of this section is to provide external reviewers and committee members with a comprehensive understanding of the project to assess its alignment with ERDC objectives and the scientific and technical or social impact of the solution. Be specific, quantify the target results (starting point and endpoint).

* 1. Opportunity

Give context. State the overall objective. Explain how this project contributes to the electrification and towards resilient decarbonized communities (e.g., producing electricity through renewable energy sources, or saving or storing energy).

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* 1. Challenges.

Describe the state-of-the-art, the knowledge gaps relevant to the proposed project and explain the challenges of developing a solution.

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* 1. Technical/socioeconomic solution.

Describe the technical/social solution to be developed and define, quantitatively, the Performance Targets anticipated. The targets should be measurable to help assess the success of the project.

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* 1. Seed funding

Describe how the project creates the conditions for a larger scale project under ERDC major call 2024 which will require features like multidisciplinary projects involving arrays of partners, public and private, addressing key elements to demonstrate real and significant impact.

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1. Project Plan (up to 2 pages)

The intent of this section is to allow assessing the quality of the project plan. Show how project delivery is arranged in logical work packages including timeline and anticipated results. Also explain how the team assess the deliverables during the duration of this seed grant.

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| **Work package 1****Work package 2** |

1. Expenditures and Contributions Breakdown (up to 2 pages)

The intent of this section is to allow external reviewers and committee members to ensure that the resources requested are eligible and reasonable and to assess if they are commensurate with the work to be done. (Note: at least 70% of the budget must be allocated to HQP. The maximum amounts requested for equipment and materials are not to exceed 30% of the total project cost).

* 1. One Table for the overall project

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| --- | --- | --- |
|  | **Year 1** | **Year 2** |
| **Salaries – Professional** |  |  |
| **Student Support****(Minimum: MASc: 22k/y and PhD: 35k/y).****For Concordia Researchers: Students supported by the ERDC Seed Fund are not eligible for GCS-FRS and SGS support.** |  |  |
| **Equipment or facilities** |  |  |
| **Materials and supplies** |  |  |
| **Travel** |  |  |
| **Dissemination** |  |  |
| **Intellectual property** |  |  |
| **Other (add lines)** |  |  |
| **Total** |  |  |

* 1. Budget justification

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1. Impacts / Benefits (up to 2 pages)

The intent of this section is to allow external reviewers and committee members to evaluate the benefits or impact of the project and assess if it is commensurate with the public investment requested. Provide quantitative information and give the rationale behind the numbers quoted.

* 1. Environmental impact

Describe how the project significantly contributes toward decarbonized resilient communities.

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* 1. Human resources impact

Describe how the project contributes to training highly qualified personnel, technical and job-market related skills.

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* 1. Ecosystem impact

Describe how the project contributes to building the ERDC ecosystem across Canada. Explain how the results of the project will be widely disseminated.

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* 1. Intellectual property (if applicable)

Describe how the foreground IP (patents, know-how, trade secrets, building codes, etc.) to be developed will be protected.

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7.1. Suggested External reviewers.

Provide a minimum of four external reviewers:

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| First Name; Last Name:  |  |
| Affiliation: |  |
| Email Address: |  |
| Expertise:  |  |

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| --- | --- |
| First Name; Last Name:  |  |
| Affiliation: |  |
| Email Address: |  |
| Expertise:  |  |

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| --- | --- |
| First Name; Last Name:  |  |
| Affiliation: |  |
| Email Address: |  |
| Expertise:  |  |

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| First Name; Last Name:  |  |
| Affiliation: |  |
| Email Address: |  |
| Expertise:  |  |

Annex 1 – References.

Annex 2 – CVs of key personnel (use NSERC form 100A, with CCV attached); for collaborators use two- page summary CVs.

Annex 3 – Letters of commitment from each applicant and letters of support from industry partners.