Annex No.1 to Regulations

**Application for a research project as part of the first edition of the YOUNGENERGYDEMO competition**

**of the Research Centre for POB Energy Conversion and Storage**

1. **KEY DATA**
2. Data of the applicant (head of the project):
3. First name, surname, academic title/degree, position, place of employment, represented scientific discipline in which the applicant is included in the N number
4. Has the applicant been the head of a project that has received funding under any of the POB Research Centres or IDUB competitions? YES / NO - select as appropriate
5. A list of research teams:
   1. First research team:

- Faculty of the Warsaw University of Technology

- First name and surname of the head of the team, academic title/degree, position, place of employment, represented scientific discipline in which the applicant is included in the N number

- A list of names of key implementers *(*first name, surname, academic title/degree, position, place of employment, represented scientific discipline)

- Information about the number of other implementers including their status (e.g. first-cycle degree student – 1 person, doctoral student - 2 persons)

* 1. Second research team:

- Faculty of the Warsaw University of Technology

- First name and surname of the head of the team, academic title/degree, position, place of employment, represented scientific discipline in which the applicant is included in the N number

- A list of names of key implementers *(*first name, surname, academic title/degree, position, place of employment, represented scientific discipline)

- Information about the number of other implementers including their status (e.g. first-cycle degree student – 1 person, doctoral student - 2 persons)

* 1. Third research team – if applicable:

- Faculty of the Warsaw University of Technology

- First name and surname of the head of the team, academic title/degree, position, place of employment, represented scientific discipline in which the applicant is included in the N number

- A list of names of key implementers *(*first name, surname, academic title/degree, position, place of employment, represented scientific discipline)

- Information about the number of other implementers including their status (e.g. first-cycle degree student – 1 person, doctoral student - 2 persons)

1. Project title: in Polish and in English
2. Number and name of the cell in the generation, conversion, and storage chain (only one number and name can be indicated)
3. Project summary in Polish (up to 400 words)
4. Project summary in English (up to 400 words)
5. **PROJECT DESCRIPTION**
6. Project objective

(Please provide a brief description of the planned objective to be achieved as a result of the project implementation; **up to ½ of a page, font 11 pt.**)

1. Description of product/process innovation planned to be developed as part of the project
2. Description of innovation

(Please demonstrate that the result of the project, i.e. the demonstrator will have at least equivalent parameters compared to the representative/leading products (products or services) or processes available on the Polish market for the given technology in terms of its new features, and functionality. Indicate the product/process to which you are comparing yourself (In the case of a product, please provide its name and manufacturer. In the case of a process, please provide its name and indicate where it is used); **up to 3 pages, font 11 pt.**)

1. Indices regarding the features/functionality of the innovation

(Please provide at least one, maximum of three indicators by which you have defined new functionalities and features of the innovation of the studied innovation in comparison to the solutions available on the market. Each key functionality/feature given in the innovation description must be reflected in the form of a numerical index with a value no less than that of the solution available on the market to which the applicant refers.)

- Name of index:

- Measurement unit:

- Base value:

(The value of a given feature/functionality in a commercially available product/process to which the innovativeness level of the demonstrator relates)

- Target value:

(The value planned to achieve as part of the project implementation)

- Description of the methodology of calculating the indicator and how the achievement of the planned indicator values will be verified:

(The index must have a measurable and verifiable value at the end of the project up to **½ of a page, font 11 pt.**)

1. Research plan
2. Timetable of project implementation and its outcome

(Please describe the starting point for developing the demonstrator - what technology and solutions you have.

Describe the research plan - the tasks - that you intend to undertake to develop the demonstrator, broken down into research teams.

Provide the technical parameters of the demonstrator.

Describe how you will verify the achievement of the indices regarding the features/functionality of the innovation. **Up to 3 pages, font 11 pt.**)

1. Declared TRL level of the demonstrator: 4/5/6

(Select as appropriate

TRL 4: Technology components or basic subsystems have been verified under laboratory conditions. This process means that the basic components of the technology have been integrated. This includes “ad hoc” integrated models in the laboratory. A generic representation of the target system under laboratory conditions has been achieved.

TRL 5: Components or basic subsystems of the technology in a near real-world environment have been verified. The basic components of the technology are integrated with real-world enablers. The technology can be tested in simulated operational conditions.

TRL 6: A demonstration of a prototype or model of a system or technology subsystem under near-real conditions has been performed. Testing at this level includes testing of a prototype under laboratory conditions replicating real-world conditions with high fidelity or under simulated operational conditions.)

1. Manner of using the demonstrator in the teaching process – if applicable

(Please describe if and in what way you plan to use the demonstrator in the teaching process **up to ½ of a page, font 11 pt.**)

1. Declaration of measurable outcomes of the implementation of the research project

Obligatory indices:

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Type of outcome | Declared value  (0/1) | Comments  (e.g. type of exhibition/fair/contest and their date, rank: Polish/international, participation objective) |
| 1 | Participation in an exhibition/fair/contest with at least a Polish rank |  |  |
| 2 | Filing a patent application for the developed innovation |  |  |

Optional indices:

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Type of outcome | Declared value | Comments  (e.g. a succinct description of the nature of the outcome, information about the type and number of publications, planned journals) |
| 1 | Publications of papers in scientific journals from the upper decile, according to the CiteScore of the Scopus database, according to the list published in the announcement of the competition, of which the author/co-author is a doctoral student who is an implementer in the project (at least one of the authors/co-authors must be assigned to number N) - at least acceptance of the paper for publication is required. |  |  |
| 2 | Use of the demonstrator in the teaching process. |  |  |

1. The scientific output of the head of the project:

(Data of the head for 2019-2024 (**up to 1 page**), including:

- A list of best publications, up to 5

- A list of current projects, indicating the functions performed in them

- A list of completed projects in which the applicant was the head

- Participation in an exhibition/fair/contest with at least Polish rank)

1. The scientific output of members of the first research team:
2. The scientific output of the head of the team:

(Data of the head for 2019-2024 (**up to ½ of a page**), including:

- A list of best publications, up to 5

- Participation in an exhibition/fair/contest with at least Polish rank)

1. Scientific characteristics of key implementers

**(up to ½ of a page)**

1. The scientific output of members of the second research team:
2. The scientific output of the head of the team:

(Data of the head for 2019-2024 (**up to ½ of a page**), including:

- A list of best publications, up to 5

- Participation in an exhibition/fair/contest with at least Polish rank)

1. Scientific characteristics of key implementers

**(up to ½ of a page)**

1. The scientific output of members of the third research team:
2. The scientific output of the head of the team:

(Data of the head for 2019-2024 (**up to ½ of a page**), including:

- A list of best publications, up to 5

- Participation in an exhibition/fair/contest with at least Polish rank)

1. Scientific characteristics of key implementers

**(up to ½ of a page)**

1. Information on possible ethical issues arising in the planned research.

**(up to ½ of a page)**

**I declare that the research planned in the application is not and has not been financed from other sources.**

**By submitting this application, I acknowledge that, if funding is granted, the name of the head of the project, as well as the title of the project, will be made public in the competition information and result.**

1. **DECLARATIONS OF APPLICANT**
2. I declare that I am employed at the Warsaw University of Technology as my primary place of employment.
3. I declare that I have submitted a declaration of assignment to the N number to the Warsaw University of Technology.
4. I declare that I am not the head of the project that was awarded research grants in any of the competitions of the IDUB programme and whose deadline for implementation expired before 31 March 2024, and that did not achieve the assumed outcomes of the project.
5. I declare that I submitted only one application in the first edition of the YOUNGENERGYDEMO competition of the POB Research Centre for Energy Conversion and Storage.

**Project timetable and cost estimate (according to the template – Table 1 or 1a) including justification for direct costs of the project**

|  |
| --- |
| **Project timetable – please provide a list of tasks for each individual unit with time brackets for the task completion** |
|  |

Table 1: Project cost estimate for two research teams from two WUT units

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Planned costs** | | **2024** | | | **2025** | | | **Total** | | |
| **Unit 1** | **Unit 2** | **Total** | **Unit 1** | **Unit 2** | **Total** | **Unit 1** | **Unit 2** | **Total** |
| **I.** | **Total direct costs** | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1 | Equipment and instrumentation | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|  | including | with a value from PLN 3,500 to 10,000 |  |  | 0,00 |  |  | 0.00 | 0.00 | 0.00 | 0.00 |
|  | with a value above PLN 10,000 |  |  | 0,00 |  |  | 0.00 | 0.00 | 0.00 | 0.00 |
| 2 | Remuneration with related items | |  |  | 0,00 |  |  | 0.00 |  |  | 0.00 |
| including | first- and second-cycle degree students |  |  | 0,00 |  |  | 0.00 |  |  | 0.00 |
| doctoral students and PhD-holders up to 7 years after the award of the degree |  |  | 0.00 |  |  | 0.00 |  |  | 0.00 |
| Other |  |  | 0.00 |  |  | 0,00 |  |  | 0.00 |
| 3 | Other direct costs | |  |  | 0,00 | 0.00 |  | 0,00 | 0,00 | 0,00 | 0,00 |
| **II.** | **Indirect costs** *(15%)* | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **III.** | **Total costs** | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Table 1a: Project cost estimate for three WUT research teams

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Planned costs** | | **2024** | | | | **2025** | | | | **Total** | | | |
| **Unit 1** | **Unit 2** | **Unit 3** | **Total** | **Unit 1** | **Unit 2** | **Unit 3** | **Total** | **Unit 1** | **Unit 2** | **Unit 3** | **Total** |
| **I.** | **Total direct costs** | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1 | Equipment and instrumentation | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|  | including | with a value from PLN 3,500 to 10,000 |  |  |  | 0.00 |  |  |  | 0.00 | 0.00 | 0.00 |  | 0.00 |
|  | with a value above PLN 10,000 |  |  |  | 0.00 |  |  |  | 0.00 | 0.00 | 0.00 |  | 0.00 |
| 2 | Remuneration with related items | |  |  |  | 0.00 |  |  |  | 0,00 |  |  |  | 0.00 |
| including | first- and second-cycle degree students |  |  |  | 0.00 |  |  |  | 0,00 |  |  |  | 0.00 |
| doctoral students and PhD-holders up to 7 years after the award of the degree |  |  |  | 0.00 |  |  |  | 0.00 |  |  |  | 0.00 |
| other |  |  |  | 0,00 |  |  |  | 0,00 |  |  |  | 0.00 |
| 3 | Other direct costs | |  |  |  | 0,00 |  |  |  | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **II.** | **Indirect costs** *(15%)* | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| **III.** | **Total costs** | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

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| **Substantive justification for direct costs item I – please provide justification for the cost of remuneration, purchase of equipment and materials for each individual unit** |
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