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**GREEN BUILDINGS INNOVATION CLUSTER - ENERGY EFFICIENT DEMONSTRATIONS SCHEME**

**(GBIC-DEMO)**

**FULL APPLICATION FORM**

1. Applicants should read the Green Buildings Innovation Cluster – Energy Efficient Demonstrations Scheme (GBIC-Demo) factsheet available here before filling this form.
2. Applicants should have completed the GBIC-Demo Pre-Application form and obtained in-principal approval from BCA prior to completing this form
3. All fields in this application are compulsory. Where information is not applicable, a “N.A” is necessary.
4. All necessary supporting documents must be submitted together with this application form to the following address:

Programme Director

Green Buildings Innovation Cluster (GBIC)

C/O Building and Construction Authority (BCA) Academy
200 Braddell Road

Singapore 579700

1. Where terms or phrases are not defined herein, applicants should write to BCA for clarification.
2. The applicant’s submission of this application form shall constitute a written indication of intent to seek funding support. BCA may thereafter, at its discretion, issue a Letter of Offer to the Applicant containing an offer by duly completing and returning the letter of acceptance (enclosed with the letter of offer) in the manner set out in the Letter of Offer. Upon receipt of the said letter of acceptance by BCA, a binding agreement between BCA and the Applicant shall come into effect.

**PART 1 – PARTICULARS OF APPLICANT**

1. **Lead Applicant (Developer/Building Owner)**

|  |
| --- |
| Name of Developer/Building Owner: |
| Address: |
| Name & Designation of Contact Person: |
| Contact Number: (Office) (Mobile) |
| Email Address: |

1. **Joint Applicant** **(System Integrator)**

|  |
| --- |
| Name of Technology Supplier: |
| Address: |
| Name & Designation of Contact Person: |
| Contact Number: (Office) (Mobile) |
| Email Address: |

1. **Joint Applicant (Verification Team)**

|  |
| --- |
| Name of Researcher: |
| Address: |
| Name & Designation of Contact Person: |
| Contact Number: (Office) (Mobile) |
| Email Address: |

**PART 2 – PARTICULARS OF PROJECT**

**SECTION 2A: DETAILS**

|  |  |
| --- | --- |
| Project Title |  |
| Description of Project*Please provide the information in a separate document* |
| Area of focus:(please tick accordingly) | □Alternative Cooling Technology□Smart Lighting Technology□Intelligent Building Automation and Smart controls□Plug Load Management□Smart Lighting Technology□Passive Strategies□Others: Pls specify: |
| State the unique features of the Project, including the schematic*Please provide the information in a separate document* |
| How will the technology/technologies improve the energy efficiency of the system/building?*Please provide the information in a separate document* |
| Did this technology arise from a Research & Development Project?  | □Yes □No*If ‘Yes’, please proceed to Section 2B. If ‘No’, please proceed to Section 2C.* |

***SECTION 2B***

|  |
| --- |
| Please share information on the research topic and outcomes *Please provide the information in a separate document*  |
| Source of funding  |  | Amount supported  |  |

***SECTION 2C***

|  |  |  |
| --- | --- | --- |
| Has the technology been used in any of the buildings in Singapore? | □Yes□No | If yes, please provide details (eg. name of building, location and year) |
| Has the technology been used in other countries? | □Yes□No | If yes, please provide details (eg. name of building, location and year) |

**Section 2D: Projected Outcomes**

|  |  |
| --- | --- |
| % of Energy Savings compared to Best-In-Class Technology/Building Energy Efficiency Index (BEEI)\* | Energy savings (%) compared to baseline:Building Energy Efficiency Index (BEEI) kWh/sqm/year:Energy Usage Intensity (EUI) kWh/sqm/year:*Please provide energy modelling to support the above* |
| How does it contribute to improvement in Operations and Maintenance | Manpower Savings (Pax) | Cost Savings (SGD) | Reduction in Frequency of Maintenance (nos.) |
| EnergyProjected Savings (kWh/month) |  | WaterProjected Savings(CuM/month) |  |
| Improvement to Indoor Air Quality (IAQ) | *Please provide details in a separate document* |
| Target Green Mark Platinum | *Super Low Energy/ Net Zero Energy/ Positive Energy* *(please circle)* |

\*Best-in-Class technology refers to technology which is commercially available in the market that is pegged to Green Mark Platinum Standards OR the top 20% Green Mark Platinum BEEI.

**PART 3 – INFORMATION ON DEMONSTRATION SITE**

|  |  |
| --- | --- |
| Building Name |  |
| Address and Planning Area (as in URA’s Master Plan) |  |
| Gross Floor Area (GFA) |  |
| Building Type | □Existing | □NewExpected TOP: |
| Development Type | * Commercial
* Mixed use development \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(please specify)
* Hotel
* Residential
* Industrial
* Institutional
* Healthcare
* Others \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(please specify)
 |
| Address of demonstration site |  |
| Size of the demonstration area (Sqm) |  | Number of affected Occupants |  |
| Expected Project Start Date (mm/yyyy) |  | Expected Project End Date (mm/yyyy)\* |  |

* *Please provide an updated floor plan indicating the area where the demonstration will be carried out.*
* *Data collected and validated should follow the International Performance Measurement and Verification Protocol (IPMVP).*

*\*Project end date includes TOP, DLP and minimum 12 months of validated performance data, submission of the final report.*

**PART 4 – COMMERCIALIZATION**

|  |  |
| --- | --- |
| Potential Research Topics arising from the demonstration |  |
| Technology Readiness Level (TRL) for each technology *(Please circle)*  |  1 2 3 4 5 6 7 8 9  |
| Will the Lead Applicant replicate the technology/ technologies in your portfolio of building stock? | □Yes□No□Maybe | If No/Maybe, please state reasons: If Yes, please share your plans: |
| Plans to internationalise knowledge and technologies: |  |
| Potential number of Spin-Offs |  |

**PART 5 - Cost Breakdown**

1. **Equipment, Software, Materials & Consumables**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/No** | **ITEM** | **Cost per item (SGD)** | **Numbers** | **Total (SGD)\*** |
| 1 |  |  |  |  |
|  |
| 2 |  |  |  |  |
|  |
| 3 |  |  |  |  |
|  |  |  |  |  |

*Please use an additional sheet if required.*

***\*To include Instrumentation for collection of performance data;***

***\*\* Applicant to install Information Technology and Communication (ITC) system with dashboard (web-portal format) function to allow central monitoring and reporting capabilities and to provide secured Rest API service to allow BCA to access the data in real time (view only)***

1. **Professional Services**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S/No** | **ITEM** | **Cost per item (SGD)** | **Numbers** | **Total (SGD)\*** |
| 1 |  |  |  |  |
|  |
| 2 |  |  |  |  |
|  |
| 3 |  |  |  |  |
|  |  |  |  |  |

1. **Manpower related costs – Applicable to Research/Verification Team**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Staff Category** | **Cost per pax (SGD)/Month**  | **Numbers** | **Year 1 (Man Months)** | **Year 2 (Man Months)** | **Year 3 (Man Months)** | **Year 4 (Man Months)** | **Total (SGD)** |
|  |  |  |  |  |  |  |  |
| **Justification:** |
| **Staff Category** | **Numbers** | **Cost per head (SGD)/Month** | **Year 1 (Man Months)** | **Year 2 (Man Months)** | **Year 3 (Man Months)** | **Year 4 (Man Months)** | **Total (SGD)** |
|  |  |  |  |  |  |  |  |
| **Justification:** |

*Please use an additional sheet if required.*

**PART 6 – TIMELINE**

*Please provide a detailed project timeline stating the start and end dates. This should include the period for data collection preferably after the Defects Liability Period (DLP) or when once the building is fully occupied, whichever is earlier, for a minimum period of 12 months, inclusive of the final report.*

**PART 7 – UNDERTAKING BY LEAD AND JOINT APPLICANTS**

In signing the application for GBIC-DEMO, the Lead Applicant and/or Joint Applicants undertake the following:

* All information submitted in this form is accurate and true to the best of their knowledge at the time of submission;
* Not to send similar versions or part(s) of this proposal to other agencies for funding;
* Submit supporting documents of ethics approval obtained from the relevant Institutional Review Board (IRB) and Animal Ethics Committee for studies involving human subjects;
* Ensure that the requested equipment/resources are not already funded by another agency or research proposal.

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Name and Signature of Building Owner/ Date

 Developer

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name and Signature of System Integrator Date

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name and Signature of Verification Team Date