## **Student Team Concept Note Submission**

**What is a concept note?**

The concept note should outline what appliance your team plans to focus on and, using the template provided, be no more than four A4 pages long (excluding this introductory page and any additional appendices).

We have broken the concept note into 5 areas aligned to the assessment framework, which can be found at the end of the [Challenge Brief](https://storage.googleapis.com/e4a-website-assets/Efficiency-For-Access-Design-Challenge-Brief-2022-2023.pdf): Design Overview and Introduction, Innovation, Sustainability, Social Impact, and Scalability. These sections do not have to be of equal length in your submission but it is advised that you consider each of these sections thoroughly (please refer to the assessment framework for more details on each section). The inclusion of sketches and images is welcome. You can include additional appendices beyond the four page maximum if required.

**When do you have to submit it?**

Your team should submit a concept note at any point from September onwards. We encourage you to submit your concept note as soon as possible and at the latest within a month of the Kick-Off Workshop, which allows for tailored support and feedback to be provided promptly. The final deadline to submit the concept note is 15th February 2023.

**Why do you have to submit it?**

The concept note will help the Efficiency for Access Design Challenge team understand how your team plans to approach the problem you want to work on, so that we can procure appropriate support. You will not be assessed on the concept note and it will not be used to decide whether your team can participate in the competition. As a reminder, students should aim to sign their Terms and Conditions document as soon as they have received an email from the Challenge team asking them to do so - the submission of the Concept Note should be the *final* deadline to do this.

This concept note will also help the Efficiency for Access Design Challenge team identify a mentor from the off-grid industry sector who will support your team in developing your project if you would like this option.

**Who is involved?**

Each team will be made up of a maximum of 5 students and must appoint a team member to submit the team’s concept note (one submission per team). Once submitted, each of the team members must ensure they have signed the Terms and Conditions of the Challenge online form they will have received over email (it can also be found in the [General Workspace](https://crowdsolve.net/challenge/eforadc22-23/workspaces/198/post/172) on CrowdSolve).

**Where do you submit to?**

You will **submit this document as a PDF** via the submissions section of your project space (walkthrough video [here](https://youtu.be/pIrJijbR2ck?t=157)). All team members must be signed up to CrowdSolve and have been invited to your project space (walkthrough video [here](https://youtu.be/pIrJijbR2ck?t=115)). Please do this before submitting your concept note.

**What happens next?**

You will receive feedback on your concept note, within a month of submission, provided by a reviewer directly onto your CrowdSolve post (within the Documents section of your project space). Where requested, you will be matched with a mentor who will introduce themselves to your team by commenting on the same concept note document on CrowdSolve. Reviewers and mentors will be identifiable by a ‘Reviewer Badge’ and ‘Mentor Badge’ accompanying their name on Crowdsolve.

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| DESIGN OVERVIEW AND INTRODUCTION  This is an opportunity to provide a high-level description of the project you are considering. The scope of the Challenge is to design new appliances or improve existing off-grid appliances that directly connect to a solar home system or a mini-grid (no inverter). The focus is on energy consumption (how appliances use electricity), not the energy generation of the system. The appliance’s primary source of energy should be solar generated DC electricity. | |
| Project Title: |  |
| University: |  |
| Team members: |  |
| Theme(s):  i.e. Agriculture |  |
| Problem Statement: As stated in the Challenge Brief, your design should address a real world problem. Succinctly state the problem you hope to address here. |  |
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| INNOVATION Your design needs to improve on solutions that are currently available to your target end-user |
| What is the potential of your design to improve energy efficiency compared to existing alternatives? |
| What is the potential of your design to reduce production costs compared to existing alternatives? |
| What is the potential of your design to improve usability compared to existing alternatives? |

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| SUSTAINABILITY Your design must contribute to a positive impact on the environment |
| How will your design reduce the environmental impact throughout its lifecycle compared to existing alternatives? |
| How will your design contribute towards greenhouse gas emissions reduction compared to  other technologies that exist in the market? |
| How will your design contribute to and draw connections between the Sustainable Development Goals (SDGs), in particular SDG7 – Affordable and clean energy? |

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| SOCIAL IMPACT Your design will need to make a difference to people’s lives |
| How will you consider who will be using the design? How well have you understood their needs? |
| What is the likely potential of the design to improve the quality of people’s lives? |
| How will your design consider the SDGs’ commitment to ‘Leave no one behind’? |

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| SCALABILITY You need to justify that your design has the potential to get to market at scale |
| How will you consider the potential market for your product? |
| How will you consider the accessibility and affordability of your product? |
| How will your business model consider affordability, payment models, existing supply chains, manufacturing, distribution channels, local partners and services associated? |