Expert Assessment Guidelines

Assessments are performed online via the solution Assessment Form (SAF). Each SAF (one for each of the three independent experts) needs to be completed and submitted within fifteen days after the Expert was officially assigned the solution. In addition, experts must be able to complete all three criteria, should that not be the case the Expert must decline the invitation to assess the solution within three days from the assignment date. For each of the three criteria, experts are expected to perform assessments according to the following principles:

• **Clarity and Professionalism**: Justifications should be clear and professional, written in English. Avoid open questions or expressing uncertainties directly in the comment box. Instead, use the chatbox feature to request clarifications from the applicant before submitting the assessment.

 \rightarrow **Poor justification example (Expert chose YES and left a lot of uncertainties):** "This solution seems to use some kind of standard photovoltaic technology, though I'm not totally sure if it's any good under all weather conditions. It supposedly can make about 200 watts per square meter. The submission includes some test results, but it's unclear if the technology will actually work as promised outside of a lab setting. How does it perform when it's really cloudy?".

• **Decision Justification:** Experts must provide detailed justifications for each 'Yes' or 'No' decision, articulating the reasons behind their decision clearly with a minimum of 600 characters. These should reflect deep expert judgment, offering insightful analysis and highlighting key considerations.

 \rightarrow **Poor justification example (Expert chose YES, but did not justify the answer enough):** "The PV technology used here is credible because it's pretty common in the industry. It should work fine and meet the standards since it's like the ones used everywhere."

• **Mainstream Alternative Assessments:** While experts are encouraged to assess solutions using the Mainstream Alternative (as defined and validated by the SIF team), they may choose a comparable alternative that better fits the mainstream definition, ensuring it represents a significant market share (at least 40%) in the same geographical context. In case they do so, they should explain why they decide to use another alternative and effectively make their in depth comparison based on that alternative.

 \rightarrow Poor justification example (Expert did not elaborate her/his justification by his proposed alternative): "The Solution here was compared with using the grid, but this is irrelevant because right now the mainstream alternative can be considered other PV panels.".

You will find below two examples of good justifications provided by experts:

* Good justification example (expert selected "yes" to the Feasibility criterion): "The solution employs widely-used photovoltaic (PV) technology that is well-established in the industry. It promises reliable performance with the

capability to generate approximately 200 watts per square meter, a figure that aligns with the prevailing industry standards under varied environmental conditions. This technical feasibility is supported by comprehensive testing results included in the submission, ensuring that the performance metrics are both realistic and achievable. From a technical standpoint, the modular design allows for easy integration and expansion to meet diverse market demands, while from a business perspective, the competitive cost structure and robust supply chain strategies ensure sustained profitability and market growth."

Good justification example (expert selected "no" to the Feasibility criterion): "Despite employing widely-used photovoltaic (PV) technology, the solution does not meet the current industry benchmarks for efficiency. The claimed capability of generating approximately 200 watts per square meter falls short under varied environmental conditions, which is a critical factor for consistent performance. The testing results provided in the submission, although comprehensive, reveal significant fluctuations in output that could affect reliability and long-term viability. Further, the PV modules used in this solution are based on older technology that has been surpassed by more recent innovations offering higher efficiency and better adaptability to environmental changes. This technological lag hinders its competitiveness in the rapidly evolving solar panel market. Therefore, based on the evidence and comparative analysis with newer technologies, the solution is not feasible from both a technical and commercial standpoint."

In case experts have any doubt about how to assess a specific solution, they are encouraged to use the Solar Impulse live Chat feature to get help from a SIF member, or to send an email to expert@solarimpulse.com.