**Author Guidelines**

**Proof of Concept and Protype article submission to *APL Energy***

The length of the manuscript should not exceed 2000 words and must include the following:

1. **Title**
2. **Authors and author affiliations**
3. **Abstract**

* Provide a short description of your project, explaining the idea, and the expected outcomes.

1. **Introduction**

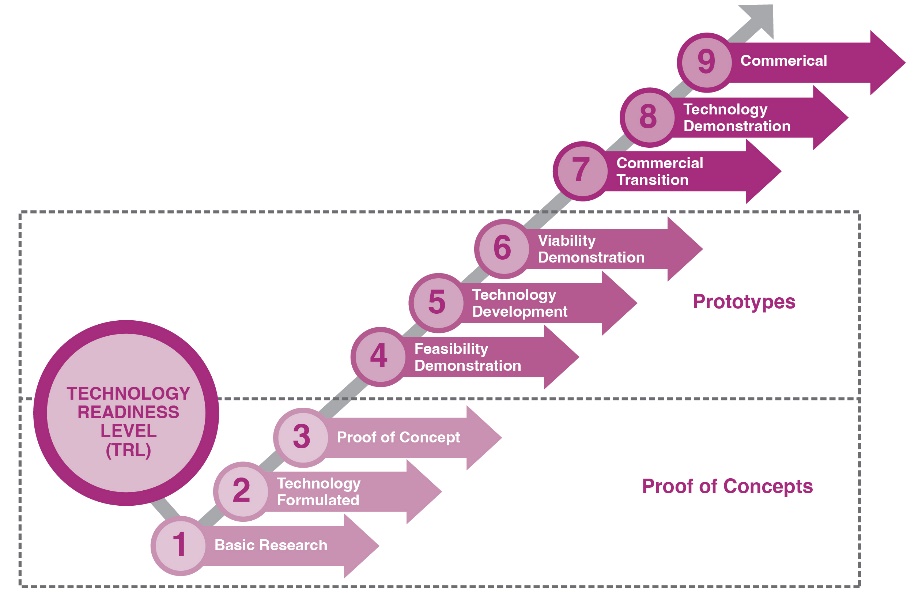
* **Problem.** Describe the challenge or need that the idea aims to solve or alleviate.
* **State of the art.** Describe the status of current technology in use to address this challenge, if any.
* **Solution.** Provide a brief description ofthe proposed innovation. A clear value proposition should be included that explains how the idea tackles a societal challenge.
* This section should be understandable for a non-specialist in the field.

1. **Research excellence**

* Describe the potential for innovation, business inventiveness, and real-world application of your idea.
* Include a detailed description of how the project outcomes will be innovative or unique compared to what already exists.
* Describe any competing products or solutions. State why potential users or sponsors should choose this solution as opposed to other existing solutions.

1. **Demonstration level**

* Technology Readiness Levels (TRLs) estimate the maturity level of a particular technology.
* Describe the Technology Readiness Level of your proposed technological innovation.
* Discuss challenges that may be difficult to overcome or aspects that may require further development.



1. **Level of intellectual property (IP) management and protection**

* Describe the level of protection of the technology. For example, is this a patent, trade secret, utility model, industrial design, trademark, copyright, etc. Please provide the reference number.

1. **Future applicability and Technology Readiness Level**

* For technologies that require further development, describe the final Technology Readiness Level (TRL) that can be achieved.
* Elaborate upon the next steps, the improvements required, and next-level demonstration.
* Discuss stakeholders or investors who are already involved in the process or those who may contribute to advancing the technology. Describe the financial potential of the technology.

1. **Market considerations**

* Briefly describe the time-to-market, size, supply/demand situation, discounted cash flow[[1]](#footnote-2) (DCF), expected return on investment (ROI), and existing competition.

**10. Conclusion**

**11. Author Contribution Statement, Conflict of Interest, Funding, Acknowledgements, References**

All non-essential figures, tables, data, code, procedures, and protocols should be included as supplementary material.

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1. https://www.investopedia.com/terms/d/dcf.asp [↑](#footnote-ref-2)