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**Advanced Research Projects Agency • Energy**

**Technology-to-Market Plan**

**Template and Instructions**

**October 2022**

United States Department of Energy

Washington, DC 20585

**TECHNOLOGY TO MARKET PLAN INSTRUCTIONS**

# OVERVIEW

A Technology-to-Market (T2M) plan will typically be a deliverable of Attachment 3 (SOPO) of the Cooperative Agreement. Recommended milestones related to the T2M Plan are:

1. Initial draft - address as many of the key elements of the T2M Plan (Appendix A) as you can, preferably in Q1 of the project.
2. Interim draft(s) – address all key elements, referencing activities that have been accomplished in the intervening timeframe – e.g., market research, customer engagements, IP reviews, TEA, etc.
3. Final version – address all elements in detail, with validation from ARPA-E.

Normally, the T2M plan should be completed with the first year of the project, so the team can focus on implementation, in alignment with the technical milestones, during the remainder of the project. Interim drafts of the T2M plan may take the form of PowerPoint slides presented to the ARPA-E Program Director during scheduled conference calls or site visits. The final T2M Plan should be submitted to the ARPA-E Program Director and/or designated program staff for the Director’s approval.

The T2M Plan is intended to serve as a roadmap for advancing the proposed technology toward commercial viability and to set goals and identify issues and opportunities related to technology transfer and commercialization of your ARPA-E funded technology. While it is the responsibility of the funding recipient to prepare the T2M plan, the identified ARPA-E T2M Advisor is available to support preparation, with the objective of ensuring timely market adoption and deployment of technologies developed with ARPA-E funds. Please highlight those elements of the T2M plan where you feel the need for ARPA-E guidance.

A single member of your project team should be designated as the T2M Lead and be responsible for coordinating and leading T2M activities for the project, including completion and execution of the final version of the T2M Plan. The T2M Lead should be an integral team member with intimate knowledge of the project technology and should participate in all project reviews.

# CONTENT

The T2M Plan Template, with the recommended key elements that make up the plan, is attached as Appendix A.

Your T2M plan should include a cover page and footers that have the appropriate markings to protect confidential information and data. Instructions on marking are provided in Appendix B.

# TT&O Budget

Awarded Project Teams are expected to spend at least 5% of the Federal funding provided by ARPA-E on Technology Transfer and Outreach (TT&O). The project’s TT&O budget should relate to furthering elements of the T2M plan as presented in Appendix A.

# APPENDIX A

**TECHNOLOGY TO MARKET PLAN TEMPLATE**

**AWARDEE NAME:**

**Project Name:**

|  |  |
| --- | --- |
| **PROJECT TERM:** | **AWARD:** $ |
| **WEBSITE:** | **LOCATION:** |
| **TECH AREA:** | **PROGRAM:** |

**CRITICAL NEED**

This section should describe the critical need the technology addresses. (Initial text can be cut-and-paste from previously submitted documents and updated accordingly.)

**PROJECT INNOVATION + ADVANTAGES**

This section should describe the innovative features of the technology and the advantages it offers compared to alternatives. (Initial text can be cut-and-paste from previously submitted documents and updated accordingly.)

**POTENTIAL IMPACT**

This section should describe the impact the technology will have, if successful, in alignment with ARPA-E’s strategic objectives of reduced emissions, increased energy efficiency, reduced imports, and restoring US energy technology leadership. (Initial text can be cut-and-paste from previously submitted documents and updated accordingly.)

**CONTACTS**

|  |  |
| --- | --- |
| **ARPA-E Program Director:** | **ARPA-E T2M Advisor:** |
| NameEmail address | NameEmail address |
| **Primary Project Contact:** | **T2M Project Lead:** |
| NameEmail address | NameEmail address |

**TECHNOLOGY TO MARKET (T2M) PLAN**

**KEY ELEMENTS**

The following items are considered to be the key elements of a quality T2M plan. The target should be to deliver the T2M plan by the end of the first year of the project, which will then establish the T2M tasks to be accomplished during the remainder of the project. If you think one or more of the items below is not applicable to your technology, please note it as N/A and provide justification.

|  |  |
| --- | --- |
| **Customer/Market** | * Describe the commercial product and/or service that you plan to the target market or markets.
* Product-market fit: describe the unmet customer need your product and/or service will address.
* Describe the primary market (or markets) in which you aspire to compete and the compelling customer value proposition you will offer.
* Market entry strategy: propose a potential beachhead market and your plan to grow your market presence.
* Competitive analysis: describe existing and emerging alternatives that could present a competitive threat.
* Enumerate a prioritized list of potential customers, including customer feedback.
 |
| **Commercial Readiness** | * Define necessary resource requirements, including plans to fill team experience/capability gaps.
* Assess the potential for a partnering and stakeholder management strategy that would accelerate the development and deployment of the technology to maximize its impact, post ARPA-E funding.
* Describe the plan to meet future funding requirements - e.g., additional federal funds, private capital, internal cash flows, etc.
* If a risk matrix is a deliverable of the SOPO, confirm that it also captures non-technical risks and mitigating actions.
 |
| **Business/Deployment Model** | * Propose a business model that addresses the anticipated commercialization vehicle (e.g., license, start-up, JV, etc.) and the principal business activities.
* Develop an early manufacturing plan, if applicable, and identify any equipment development needs.
* Map the end-to-end supply chain, including distribution channels, highlighting gaps or potential bottlenecks (e.g., sole-source suppliers).
* Identify existing or anticipated contractual arrangements required for successful commercialization.
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| **Intellectual Property** | * Identify all relevant IP that you control and the form it takes - e.g., issued and pending patents, licenses, etc. Confirm entry in i-Edison, as required.
* Highlight relevant third-party IP, referencing the source for identifying and assessing the prior art.
* Propose an IP strategy for your project that will result in an IP portfolio to underpin your business strategy.
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| **Financials** | * If a deliverable of the SOPO, confirm a credible techno-economic analysis (TEA) that includes a cost estimate and/or cost model for the commercial product and/or service and informs the future path to market.
* Estimate future financial performance based on realistic capital and operating costs and revenue projections.
 |

# APPENDIX B

**MARKING INSTRUCTIONS**

1. Please include the following marking on the cover page of all versions of the T2M Plan:

*NOTICE OF RESTRICTION ON DISCLOSURE AND USE OF DATA*

*Pages [\_\_] of this document may contain trade secrets or commercial or financial information that is privileged or confidential and exempt from public disclosure. Such information shall be used or disclosed only for evaluation purposes or in accordance with a financial assistance or loan agreement between the submitter and the Government. The Government may use or disclose any information that is not appropriately marked or otherwise restricted, regardless of source.*

1. Please include the following markings on the cover page of all T2M Plans presented and/or submitted to ARPA-E:

*NOTICE OF RESTRICTION ON DISCLOSURE AND USE OF DATA*

*Pages [\_\_] of this document may contain trade secrets or commercial or financial information that is privileged or confidential and exempt from public disclosure. Such information shall be used or disclosed only for evaluation purposes or in accordance with a financial assistance or loan agreement between the submitter and the Government. The Government may use or disclose any information that is not appropriately marked or otherwise restricted, regardless of source.*

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*Pages [\_\_] of this document contain protected data that was produced under Agreement No. \_\_\_\_ with the U.S. Department of Energy. This data may not be published, disseminated, or disclosed to others outside the Government until 10 or 20 years after development of information under this Agreement, unless express written authorization is obtained from the recipient. Upon expiration of the period of protection set forth in this Notice, the Government shall have unlimited rights in this data.*

1. Please include the following footer at the bottom of every page of the initial T2M Plan and all subsequent T2M Plans:

*May contain trade secrets or commercial or financial information that is privileged or confidential and exempt from public disclosure.*