



Climate Change and Emissions
Management (CCEMC) Corporation

Technology Transfer Plan Guidance

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Introduction

Intellectual property, innovation and the transfer of knowledge are important considerations relating to projects funded by the CCEMC to support the emission reductions and improve adaptation to climate change. The CCEMC recognizes that funding recipients, in the main, are motivated to commercialize technology resulting from projects supported by CCEMC funds. As a result, the CCEMC is committed to providing project funding recipients with a period of confidentiality for two years from the project completion date to make necessary arrangements to protect and commercialize the project technology.

If a funding recipient provides sufficient information to the CCEMC that they are undertaking to protect and commercialize the project technology in the form of a Technology Transfer Plan the CCEMC may extend the confidentiality period to allow the recipient to obtain patents, licences etc. required for the technology to be fully commercialized.

The Technology Transfer Plan is intended to be a formalization of the intent to bridge the gap between the technology and the market, and identify any significant hurdles that the project funding recipient might face in the commercialization process.

The purpose of this document is to provide a broad outline and suggested subject matter and content of a Technology Transfer Plan. This information is provided to support CCEMC funded recipients in preparing a Technology Transfer Plan. The CCEMC acknowledges that each project may be unique and therefore the following content considerations should be treated as guidance only.

Technology Transfer Plan Content Considerations

Product/Service Offering

Information should be presented that clearly defines the technology to be transferred and the form of the transfer. This commentary is important to assess the assumption of a proven, viable new technology and the general scope and scale of the technology transfer. Content should include:

- **Brief description of the technology** being developed for commercialization (in laymen's terms), including an overview of how the technology is expected to benefit customers and end-users as well as a description of how the technology will ultimately be accessed by end-users.
- **Description of the provision of service/product** including how the technology will physically be produced and provided to customers as well as a description of any supplementary services your company will offer. Key considerations include employee numbers and expertise, office locations and any other key infrastructure required by your company.
- **Identify 3rd party vendors** (including suppliers, manufacturers, technical services, etc.) required by your company to commercially produce the technology. Discuss the role of 3rd party vendors in the production process and any existing relationships.

Competitive Scan

The competitive scan is an overview of the competing technologies your company faces and the characteristics of that competition. This commentary is important to assess the assumption of a bona fide market or customer base and the receptiveness of your target market for the technology and should include the following:

- **Briefly describe the competitive landscape of the industry that the technology would be deployed in** i.e. highly competitive fragmented market, monopoly, oligopoly, etc. and the implications the competitive landscape might have on the technology transfer plan.
- **Identify specific competitors** in your company's market including both similar technologies and substitutes. Include a brief comparison of the technologies and strengths/weaknesses of each, as well as the relative stage of development of the competitor's technology/company. Identify any advantages that might exist with your technology or that of your competitors.

Market/Customers

An overview of the intended market and customer base of the technology is important to further assess markets or customer base as well as quantify the extent to which the technology may be diffused (i.e. province, country, or world-wide) and commentary should include:

- **Definition of the target market** in terms of your company's customer demographics i.e. industry, geography, size, quantity of customers etc. and explain why certain segments were targeted at the expense of others (if applicable) and estimates of the length of time required for your company to penetrate all geographic markets identified within the target market.
- **Definition of the end-users** of your company's technology (i.e. a description of the common characteristics of a typical customer), and any special or unique features or capacity that would be required of an end-user of your technology. Include an estimate of the size of the market of end-users and their dispersion across the market geography as defined in the "Distribution" section of the Technology Transfer Plan. Commentary should include estimation of the length of time required for the technology to reach these end-users if materially different from the geographic market penetration timing estimate. *Note: End –users may or may not be the same as customers; customers are entities the company shares its technology with directly; end-users are those that will ultimately benefit from the technology.*

Marketing

This section is a summary of the plans the company has to make its market aware of the technology. This commentary is useful to assess the adequacy of communication of the new technology with the intended market to maximize technology diffusion to that market and includes the following:

- **Definition of the primary marketing mediums** to be used by your company i.e. advertising, industry contacts, word-of-mouth, public demonstrations etc.

- **Details of the timing and geographic location** (if applicable) of all marketing activities. Explain how these activities will both inform potential customers of the new technology and help the technology be diffused.

Distribution

Describing how the technology will actually be provided to customers and end-users will be used to assess the suitability and efficiency of distribution channels to optimize timing and geographical diffusion of the technology. Commentary should include:

- **Definition of the form of technology dispersion** i.e. product sales v. Intellectual property sale v. licensing, etc.; the general terms included in any of the above arrangements i.e. length of contract, geographic restrictions, options to renew, exclusive arrangements etc.; and a brief description of the activities allowed to the counter-party of any agreements/licenses.
- **Description of distribution channels** differentiating between existing and planned channels (direct sales to customers, wholesale, service provision via site visits, etc.) including an overview of the steps required to build/access those channels (eg. build relationships, lease/build retail facilities, construct industrial plants, etc.).

Legal

A brief overview of the legal issues associated with the technology, with a focus on the defence of the technology IP will assist in evaluating the existence of barriers protecting the technology, as well as the degree to which those “protection” measures have been implemented. Commentary should include:

- **Description of how the technology will be protected** i.e. patent v. proprietary production process v. economic/regulatory structure. Include details such as timing and geographic jurisdiction for patents and patent applications while company procedures and economic/regulatory barriers should be discussed as applicable. Differentiate between existing and planned activities, and summarize all relevant actions that have been completed to date.
- **Confirmation there are no competing proprietary processes or patents**, secured or pending, that may jeopardize your company’s claim to the technology or your transfer plan.
- **Disclosure of any required, existing and pending legal and business arrangements or commitments** with funders, customers, suppliers, manufacturers, partners, government agencies, etc. and their role in the technology transfer plan. Consider how they will impact the technology transfer plan, negatively or otherwise, if voided.

Financial

Discussion concerning the investment, costs and returns associated with initial technology development and technology transfer plan implementation will be used to assess the transfer plan’s financial strength (adequate financing and potential returns, timing, etc.) and any contingency plans in place if a material financial component of the transfer plan is amended or lost. Information presented should consider:

- **Cost of development** to date, an estimate of sunk costs related to the research and development of the technology.
- **Discussion of the primary characteristics of the transfer plan that are expected to positively influence the investment return** such as a short payback period, advantageous financing structure/high leverage, high revenue potential with minimal initial investment, quick absorption of the technology by the marketplace, etc.
- **Costs to Implement** the transfer plan including (where applicable) remaining development costs, scale-up costs, marketing costs, patent/other legal costs, initial production costs (include any forecasts or budget estimates).
- **Sources of funding** reconciled to the Costs to implement from the previous bullet, including source of funds, timing of the receipt of funds and any requirements/conditions that must be met to receive funding.
- **Revenue potential** of the transfer plan; the revenue that is expected to be generated given the assumptions of the plan (include any forecasts or budgets available).
- **Identify any contingency funds/plans** in place in case of discrepancies in the company's funding or financial projections.

Milestones for Commercialization

This commentary will provide a quantitative framework to gauge the success of the implementation of the technology transfer plan and should include:

- **Timelines of milestones** that must be achieved periodically to further the technology transfer process. Examples include securing a patent, opening a new facility, penetrating new geographic regions, signing a large customer, etc. This timeline should consider the company's current position to its first full year of commercial sales.