

## T&I Biotechnology - Call for Proposals Fall 2004

The Fall 2004 Call for Proposals for the T&I Biotechnology R&D Program is for proposals for R&D projects that range from 1 to 3 years in length. The total amount available for allocation is \$3.5 million per year for fiscal years 05/06 through 07/08.

In addition, the Biodiesel Targeted Measure program has \$500,000 per year available for R&D projects in the area of biodiesel production and utilization for transportation applications.

### **introduction**

Canadian Biomass Innovation Network (CBIN) Program manages two sources of R&D funding in the area of bioenergy, industrial bioproducts and bioprocesses: (1) PERD BEST POL 4.4.1; and (2) T&I Biotechnology R&D. This call for proposals pertains only to the T&I Biotechnology R&D program.

The T&I Biotechnology R&D program is one of nine programs of the Climate Change Technology & Innovation (T&I) whose main objective is "to accelerate R&D in longer-term technologies to achieve GHG reductions". Activities are to be based on a strategic analysis of current state and needs of Canada's climate change file in order to better design and deliver the S&T. All T&I projects are required to have partnerships, leveraged funds, quantified greenhouse gas (GHG) impacts (for 2025), and dissemination strategies.

The CBIN program is described in the Strategic Plan (hot-linked pdf file). The Plan outlines the energy-climate change challenge and ways in which the use of Canada's biomass resources and biotechnology can be part of the solution. It describes the vision for the 'bio' technology area in 2025, the R&D gaps and how the CBIN program will accelerate the development of knowledge and technologies needed to realize this vision.

The current program is described in terms of 13 themes (hot linked to theme descriptions). These themes listed in Table 1, are managed by 15 federal government experts, referred to as theme leaders.

Table 1. CBIN R&D Program Themes and Theme Leaders 04/05

Theme Title	Theme Leader	Fed Dept
<b>Activity 1: Existing and New Biomass Supply</b>		
Detailed Agriculture and Forestry Biomass Inventory	Mark Stumborg	AAFC
Purpose-Grown Woody Biomass Production (forestry & agro-forestry)	Dr. Peter Hall	CFS
Technologies for Harvesting, Preparation, Storage and Transportation		
- Ag Residues	Mark Stumborg	AAFC
- Forestry	Dr. Peter Hall	CFS
New and Improved Biomass Feedstocks		
- Annual Plants	Dr. Wilf Keller	NRC-PBI

<b>Activity 2 : Biomass Conversion and Utilization Technologies</b>		
Biomass Conversion to Heat and Power (forest products ind)	John Burnett	NRCan-CETC
Conversion of Waste to Bio-based Gases (biogas, syngas, hydrogen)	Jody Barclay	NRCan-CETC
Key Separation and Conversion Processes for Bio-based Products	Dr. Bill Cruickshank	NRCan-CETC
	Dr. G. (Joe) Mazza	AAFC
	Dr. Ashwani Kumar	NRC
Biocatalysis for Industrial Applications	Dr. Bill Cruickshank	NRCan-CETC
	Dr. Peter Lau	NRC-BRI
Advanced Biomass Conversion & Utilization Technologies	Ed Hogan	NRCan-CETC
Biofuels for Transportation Applications	Dr. Jacques Monnier	NRCan-CETC
<b>Activity 3: Integrated Bio Applications</b>		
Integrated Biorefining	Dr. Neil Westcott	AAFC
Regional Bioclusters	Dr. John Jaworski	IC
<b>Activity 4: Cross-Cutting</b>		
Strategies & Dissemination	Maria Wellisch	NRCan-CETC
Assessment Frameworks & Networks	Dr. Terry McIntyre	EC

### **Request**

Two types of project proposals are being sought:

- (a) Stand Alone projects (eligible for max \$200k T&I funding/project per year)
- (b) Thread projects (eligible for max \$500k T&I funding/project per year)

All T&I projects must have a federal government lead.

They should be aligned with the Strategic Plan and meet the four T&I criteria: real GHG reductions in 2025; involve partnerships with one or more industry, government and academia; be leveraged (e.g. cash and/or in-kind); and include dissemination activities that will transfer knowledge and/or move the technology further along the innovation curve.

- *Stand Alone Project Proposals*

Stand alone projects are eligible for a maximum of \$200k of funding from T&I Biotechnology. They must be completed within one year. These proposals must meet the T&I criteria: GHG impact, partnerships; leveraging and dissemination, and preferably should fit under the Program's existing themes.

The Biodiesel Targeted Measure program is also looking for Stand alone R&D projects in the area of biodiesel production and utilization for transportation applications. These theme projects are eligible for a maximum of \$100k of funding per year, and can range from 1 to 3 years in length. (Contact for this program: Ed Hogan, NRCan, CETC)

- *Thread Proposals*

Threads are 'feedstock to product' pathways. For example, a thread could be defined as whitewood residue (from softwood species) that is converted through hydrolysis and fermentation into fuel ethanol and lignin that is further converted into power. A Thread proposal could take the form of a combination of R&D Projects from different Activities or Themes. Threads are eligible for a maximum of \$500k of funding per year from T&I Biotechnology.

Thread proposals must be aligned with the Strategic Plan and meet the T&I criteria: GHG impact, partnerships; leveraging and dissemination. With respect to GHG impact, the minimum requirement is for the proponents to provide an estimated range of potential GHG reduction. (See GHG template – hotlinked TIMS form.) If an estimated range is provided, the Thread proposal should include a project to undertake a more detailed GHG reduction calculation in its workplan.

### ***overview of fall 2004 call for proposals process***

The following is an overview of the Fall 2004 call for proposals process and timeline. CBIN's target is to have the Program and T&I Projects approved so that funds can be released by April 1, 2005.

Fall 2004 T&I Biotechnology R&D - call for proposals "December 6, 2004"

Step 1 : Proponents review call for proposals & associated documents

Step 2 : Proponents decide whether their proposal is a stand alone project or thread proposal

Step 3: Proponents build project team and prepare proposal (completed template and supporting documents).

Step 4: Proponents submit proposal to CBIN website ( [www.cbin-rcib.gc.ca](http://www.cbin-rcib.gc.ca) ) on or before January 28, 2005.

Step 5: CBIN Executive Committee (ExCo) reviews and ranks proposals by Feb 18, 2005, and Chair submits recommendation to External Advisory Panel.

Ranking will be based on project scoring, and group discussion and ranking. If necessary, peer reviewers (indicated by the project proponent) may be contacted by the ExCo. Note: ExCo members and their alternates that are directly involved in a proposal will not be involved in the review the particular proposal.

Step 6: External Advisory Panel reviews CBIN ExCo project selection and program budget for 05/06, and provides feedback to CBIN ExCo Chair by Feb 25, 2005.

Step 7: CBIN ExCo responds to the External Advisory Panel's input by March 4, 2005.

Step 8: CBIN ExCo Chair submits T&I 05/06 Draft Action Plan, including selected projects, to TIMS on March 7, 2005 for review and final approval by DG Steering Committee.

Step 9: T&I DG Steering Committee (via TIMS) informs CBIN ExCo Chair of decision. (date to be determined by NRCan, OERD)

Step 10: Results are posted on the website. Successful proponents complete their CEAA preliminary screening form, and submit the name of their financial contact and specify the type of funds (e.g. salaries, O&M, G&C) to CBIN Coordinator. OERD transfers the funds to the respective department(s).

**instructions**

Proponents are asked to complete the attached template (hot linked) in either official language. Additional information can be attached in appendices, and should not exceed 20 pages in length. The due date for proposals is January 28, 2005 - 16:00 EST. Proposals are to be submitted electronically to the CBIN website ([www.cbin-rcib.gc.ca](http://www.cbin-rcib.gc.ca)). Proponents are also asked to submit the names and contact information of three individuals who could provide a peer review of their proposal.

Shown in Table 2 are the criteria and respective weightings that will be used to score the stand alone project and thread proposals.

Table 2. Category and Weighting (Max Score)

Category - Criteria	Weighting Stand Alone Project	Weighting Thread Proposal
Technical Content (Quality)	40	50
Risks & Mitigation	n/a	10
Technology Transfer & Dissemination	5	10
Impacts	15	30
Total	60	100

Inquiries on the Fall 2004 T&I Biotechnology Call for Proposals should be directed to: [Brenda Clarke](#) (CBIN website coordinator). Questions related to the Biodiesel Targeted Measures program should be directed to [Ed Hogan](#) (NRCan, Manager - Thermochemical Conversion).

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Approved for release by: Mark Douglas, CBIN Chair  
Date: November 30, 2004