



Guide to Starting a Biofuel Co-operative

Prepared for the
The Agricultural Co-operative Development Initiative (Ag-CDI)

March 2007

Canada



Co-operatives Secretariat
Secrétariat aux Co-opératives

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This document is a product of the Agricultural Co-operative Development Initiative (Ag-CDI), a program co-managed by the Canadian Co-operative Association and le Conseil Canadien de la Coopération, in partnership with the Co-operatives Secretariat of the Government of Canada. Ag-CDI was made possible by the generous financial support of Agriculture and Agri-Food Canada.

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Introduction

Across Canada, many farmer and community groups are looking to the explosive growth of the biofuels industry throughout North America and deciding that they wish to participate in the value-added potential of this growing sector. As of early 2007, the Canadian Co-operative Association has identified nearly 20 groups that are at various stages of examining the feasibility of biofuel enterprises owned in whole or in part by farmers and other members of the local community.

This guide is intended to provide some practical direction to those early efforts of groups wishing to explore the feasibility of a biofuels project further. Along with this guide, groups considering a biofuel project should also look at some of the other biofuel development guides listed in the Appendix. Although these are all focussed on the United States, there are many points of similarities and it is certainly worth looking at the experience of biofuel producers elsewhere.

There is no claim here to provide a comprehensive manual on how to start a successful biofuel co-operative. The intent is rather to assist groups in establishing a framework for pursuing their projects and to give them some guidance in the kinds of challenges and obstacles they should be prepared to confront as they move forward with their project. One of the key challenges of the development of any enterprise, and particularly a co-operative enterprise which must be closely tied to the local community, is to address the specific circumstances of the particular community in which it is to be established and to work with the resources available locally.

1 – Developing the Project Leadership

Formation of Initial Steering Committee

Whatever the source of the original idea for an ethanol or biodiesel plant might be, to move the idea forward to a planning stage you will need to form some kind of organizing or steering committee. This steering committee will be responsible for the initial development of a rough outline of the concept and for the refinement of that concept into something sufficiently concrete that it can be presented to a broader audience.

Recruitment of Steering Committee Members

While the initial members of any group will consist simply of the first people who have formed and pursued the idea of some kind of local biofuels initiative, recruiting the right kinds of people will greatly enhance the group's chances of success.

At this early stage of development, the precise mandate of the steering committee may seem vague and committee activities will appear to meander at times. While a group with good organizational and planning skills may help reduce the pursuit of unnecessary tangents, the truth is that turning the unformed ideas of a group that may never have worked together into a concrete plan of action takes time. This difficulty is obviously compounded when likely

none of the people developing the idea have previously been involved with the biofuels industry. Part of the process of starting up a co-operative business venture involves the development of the individuals forming the Board as well as the education of the prospective members of the co-op. Systems and structures must also be set up.

As a community-based project, the proponents of a biofuel co-operative may often include municipal economic development officials, staff or directors from business development centres, local business leaders, provincial government officials, and other community activists. Staff or directors from farm organizations may also be involved. These people can bring a wide range of planning and organizational skills to a start-up project.

Establishing the Founding Board of Directors

As this initial steering committee begins to develop the project, one of its key priorities will be to identify the right individuals to sit on the founding Board of Directors of the co-operative or other corporate entity chosen to move the project forward. Some of the original steering committee members may be suited to the founding Board of the co-operative, but likely additional Directors will need to be recruited as well. It should be recognized that to a large degree the perfect Directors for a biofuel co-operative will not yet exist within the local community. That is why they

need to be created, that is, developed and trained through the very process through which the co-operative project is to be developed. In identifying the right Directors, their skills, experience, and aptitude are likely more important than their current level of knowledge of biofuels, although anyone with significant previous experience in establishing a biofuels project would obviously be a good candidate for a Board.

Locating the Right Skills

Since a wide range of skills will be required to develop the project, a Board with diverse backgrounds and lots of experience will be ideal. In the world of public corporations, Boards frequently include lawyers, accountants, engineers and, ideally, entrepreneurs. This diversity of membership is intended to provide the Board with the skills require to oversee the governance of the diverse aspects of most businesses.

Without attempting to be exhaustive, the kinds of skills that will be required on the Board of a start-up biofuel co-operative include:

- **Financial skills**, including the ability to read financial statements, understand the basic financial principles of an enterprise, and understand the requirements of both investors and lenders;

- **An ability to understand legal contracts**, as the successful biofuel co-operative will need to enter into a number of legal agreements during the course of its development;
- **Negotiation skills**, since the co-operative will have to ensure the agreements it enters into are advantageous to it;
- **Basic familiarity with engineering, plant design, processing, and related matters**, as a decision will need to be made fairly early on in the development process with respect to the type of technology adopted for the plant;
- **Familiarity with Government processes**, both on a bureaucratic and a political level.

Certainly the project's steering committee, and subsequently the Co-operative's Board, will need to engage professionals to assist them with many aspects of project development. These will include lawyers, accountants, engineers, and other consultants with specific expertise in the start-up of projects of this nature. However, in order to provide direction and instructions to these various professionals, and to consider the advice they provide, the Board will need to feel comfortable with the subject matter they review.

Having outlined what really amounts to some of the key qualifications for the Directors of any business enterprise, one should not overlook what is likely one of the most important requirements for each and every director of a start-up co-operative, namely their ability to raise equity for the project. If the co-operative is to raise significant amounts of money from farmers and other members of the rural community, the Directors need to be well-established and respected members of that community. Each one of them must be prepared to invest a substantial amount of their own money in the project so as to set an example for other prospective investors. If the Directors have not already invested their own money, they will likely fail in convincing others to invest. Directors need to lead by example, and they should be the first ones to make a financial commitment to the project and their level of commitment should be such as to set the standard for other investors.

The role Directors have to play in raising funds also dictates the personal qualities of those Directors. They must be known as good business people, progressive farmers, impeccably honest and trustworthy. Fortunately, there is a good pool of such potential Directors in most rural communities. The task of the founding steering committee will be to persuade the types of farmers and other people who are fully engaged in running and building their own businesses to volunteer countless hours for a project that,

although full of risks and with no assurance of success, ultimately can benefit both themselves and their communities.

As members of a co-operative Board, the directors must be willing to share both the risks and rewards of the enterprise with other producers and members of the community. They must also accept that they will likely never be fully compensated, at least in monetary terms, for the countless hours of volunteer labour they will need to contribute to ensure the success of the project. Early on in the process, the directors must develop a unifying vision for the co-operative and build a fundamental consensus among members about that vision, always with the recognition that the founding vision will likely evolve as the project progresses.

Finally, it is also a good idea to have a diversity of Directors on the Board to promote a healthy exchange of views and to ensure that different perspectives are brought to bear in the decision-making project. The right combination of youthful enthusiasm and sober experience, prudent caution and entrepreneurial risk-taking, and a genuine respect for the importance of both elements in the process of advancing the project will contribute to a strong and decisive Board. Board members should each individually if possible, or in any event taken together, be able to relate to the organizational context of a co-operative corporation and the independent world of the farmer members.

Role of the Board of Directors

There are many good sources for information on the roles of Directors, including some specifically aimed at the Boards of co-operatives. Most of these sources focus on the proper role of the Directors of established corporations, however, and often do not adequately address the realities of start-up co-operatives in which there is often neither management nor even adequate administrative support in place and Directors are often forced to play an active role in the operations of the co-op.

Standard of Care for Directors

Directors of a start-up co-operative should seek proper legal advice once they begin to enter into binding legal agreements, purchase significant assets, acquire property or start to raise money. They should also seek to obtain Directors and Officers liability insurance, although for start-up companies this is not always easy to obtain. Although not a substitute for proper legal advice with respect to potential liability, good common sense will minimize Directors' exposure to liability. Directors are expected to exercise an appropriate standard of care in governing the affairs of the co-operative and are specifically required to:

- Act honestly and in good faith with a view to the best interests of the corporation.

While it is not difficult for most Directors of farmer co-ops to understand intuitively what it means to act honestly and in good faith, acting in the best interests of the corporation may at times seem more complicated. While Directors may be able to put aside their own interests for the sake of the co-operative, it is sometimes difficult to determine what the best interest of the co-op is because of the different interests or constituencies which may be present in the co-op.

- Declare any conflict of interest.

Essentially this means that if Directors may benefit financially or otherwise from a particular transaction, other than to the extent that the same benefits are available to all members of the co-operative, they should notify the Board that they have a conflict of interest and abstain from any discussion of the matter and should not participate in a vote on the matter. They should also ensure that their conflict and abstention from decision-making is duly noted in the minutes.

- Exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances.

Often this standard is simply stated as requiring Directors to conduct the business of the co-operative with the same care as they would conduct their own personal business.

Directors are generally not liable for their conduct if they rely in good faith upon:

- Financial statements represented by an officer of the corporation or by the corporation's auditor to present fairly the financial position of the corporation in accordance with generally accepted accounting principles; or
- A report of a lawyer, accountant, engineer, appraiser or other person whose profession lends credibility to a statement made by any such person.
- Although Directors are not expected to be able to conduct critical analyses of professional reports or legal agreements, nevertheless they are expected to read such reports and documents and to ask questions

about them. Professionals will look to the Board for guidance on a wide range of business issues from the type and size of plant desired to the acceptable commercial terms of various agreements. The Board has to be prepared to provide instructions to the professionals they engage. It is also important to remember, once again very much from a common sense perspective, that professionals can have different opinions on the same matter and that they can, like the rest of us, make mistakes. Diligent Directors ask their professional advisors for explanations of their work and if they think something does not make sense they continue asking questions until they are satisfied with the answers they receive.

There are certain statutory restrictions on this limitation of Directors' liability. Directors are liable for a corporation's failure to make statutory tax remittances, environmental contamination, and unpaid wages in the event of bankruptcy.

2 – The Pre-feasibility Study

Getting Educated

Prior to making the financial and time commitment to engage a consultant, the founding Steering Committee should undertake some preliminary research into the feasibility of a biodiesel or ethanol plant. A back-of-a-napkin study of the feasibility of the proposed project will help better define the project and identify some of the additional information and resources that will be required for a full feasibility study. This will help educate the committee about the industry and bolster their knowledge and credibility when they begin to meet with other community members potentially interested in supporting the project. Familiarity with the industry will obviously also help build their credibility once the committee begins to speak with Government officials, prospective buyers and suppliers, and possible partners.

Fortunately there are many readily accessible sources of information about the biofuels industry. To start with, there is a huge amount of information readily available on the Internet about biofuels. The difficulty for any start-up group is not so much finding sufficient information as winnowing through the tens of thousands of sites on biofuels to determine which ones are reliable and accurate. A brief list of sites with which to begin is attached as Appendix I. Working from those sites, it is easy to track down hundreds of additional sites to broaden your knowledge base.

After gaining an initial overview of the possible scope of a biofuels project, it is a good idea to begin interacting with industry players. There are numerous conferences across North America which prospective biofuel co-ops would be wise to attend including the annual Canadian Renewable Fuels Association conference (held in December), the American Renewable Fuels Association Conference (February), the Fuel Ethanol Workshop (June), the American Coalition for Ethanol conference (August), the National Biodiesel Conference and Expo (February), and numerous other regional conferences. Links to sites for these conferences are included in Appendix I.

At this time it would also be useful to begin contacting various Government departments to find out what resources they have and to learn about federal and provincial initiatives supporting the development of biofuels.

After completing this preliminary self-education process, your group may wish to begin to speak to industry participants, including feedstock suppliers, grain marketers, ethanol or biodiesel and co-product, marketers, engineering and construction companies. Remember that at this point, a little bit of knowledge can be a dangerous thing. Far too many groups have gone out boldly proclaiming their plans to build a plant within an unrealistically short time line, only to have to go back to members, investors, Government, and industry partners and explain why there have been delays. Better to be humble about one's plans,

emphasize the preliminary and tentative nature of one's project, ask for advice and assistance, and expect to hear inconsistent and contradictory analyses of the biofuel sector.

Factors to Consider

Key factors that can assist the group almost immediately in determining whether a biofuel project is potentially feasible include:

Scale of Production: Although smaller plants have been successfully established, generally 40 million gallon (150 million litre) ethanol plants are now regarded as the minimum economically viable size for a new ethanol plant. Because of the wider variety of designs used in biodiesel plants, there is still a greater range in the size of biodiesel plants, but commercially viable plants are typically now starting in the 15 million gallon (approximately 40 million litre) range. Smaller biodiesel facilities primarily aimed at providing fuel for on-farm or local use have been established, but marketing of their biodiesel through established fuel distribution channels is a challenge since distributors typically require larger volumes of fuel. In addition, strict adherence to industry biodiesel specifications is required and smaller plants have encountered some difficulties in meeting these specifications. No less significantly, large fuel distributors have a perception that consistency and reliability of supply will be problematic from smaller

biodiesel producers which poses a hurdle for start-up facilities seeking to gain access to new markets.

Capital Costs: Capital costs for ethanol plants in Canada are typically significantly higher in Canada than in the U.S. For a standard 40 million gallon ethanol plant, you should count on capital costs of approximately \$2.00 to \$2.50 per gallon, exclusive of land, site development costs, organizational costs, legal and professional fees, and financing costs. Biodiesel plants are significantly less expensive, with capital costs of approximately \$1.00 per gallon.

Feedstock: Availability of sufficient feedstock within a 50 to 100 kilometre radius of the plant. Information on feedstock production by county can typically be found on the websites of the Ministry of Agriculture in your Province. Most ethanol plants in the U.S. today consume corn, although wheat and sorghum are also used where those crops are available in sufficient quantities. Other crops may also be successfully used to produce ethanol, although not all technology providers have developed technology appropriate for alternative crops. Biodiesel plants generally utilize soybean or canola, although other crops high in oil content have also been utilized. Ethanol and biodiesel plants typically can produce approximately 10 litres of biofuel from a bushel of feedstock; hence, a 150 million litre ethanol plant will require about 15 million bushels of corn or wheat, while a 60 million litre biodiesel plant will need about 6 million bushels of canola or soybeans.

In considering the availability of feedstock, one must look not only at production numbers, but also at who the existing buyers of that feedstock are and their ability to bid up local feedstock prices if another major buyer comes on to the scene. Needless to say, most agricultural feedstocks are commodity products, the cost of which will generally be equivalent to the price of that commodity on the Chicago Board of Trade (CBOT), plus the exchange rate and transportation costs. Any new user of feedstock which causes a region to move from having a surplus of feedstock to a deficit will cause the local basis price to increase by the increased cost of transportation from more distant feedstock regions. These potential basis increases need to be figured into your estimated feedstock costs.

As demand for corn increases with the rapid expansion of ethanol plants, many industry participants are beginning to look at alternative feedstocks. In Western Canada, wheat is obviously the preferred feedstock, but in Eastern Canada this is likely not a viable option. Cellulosic ethanol is attracting a lot of media attention currently although the technology is not yet at a point where it is commercially viable without very substantial Government incentives. However, a major technological breakthrough in this area could potentially change the economic viability of these plants significantly and make them more competitive with existing ethanol plants.

Suitable Site for a Processing Facility: While finding a piece of property is generally regarded as a fairly straightforward task by most farmers who are used to buying and selling land, selecting a suitable site for an ethanol plant or biodiesel plant is not always such an easy task. Although smaller plants may be able to dispense with some of these requirements, biofuel plants, and particularly ethanol plants, are ideally suited where the following are available:

- A minimum of 40 to 50 acres of relatively level, high and dry land, without any watercourses, streams or other potentially environmentally sensitive features.
- Zoning appropriate for heavy industrial use; although in some jurisdictions, biofuel plants may pass as agricultural processing, it is absolutely essential to get written confirmation of this from local municipal officials and possibly from provincial officials as well. Industrial planning designation is in itself not sufficient, as the site must be zoned for the intended purpose. Municipal zoning for industrial or heavy industrial use sometimes excludes plants producing volatile or inflammable materials.

While some rural municipalities are delighted at the prospect of the employment, economic activity and boost to the agricultural and rural community that comes from a biofuel plant locating within the community, other municipalities can be less receptive to the

industrial development, traffic, and municipal infrastructure demands associated with such a plant. It is generally not a good idea to be located close to residential areas, particularly upwind from such areas, as neighbours can object to dust or the odour of fermentation which will occasionally be present at ethanol plants, particularly if they do not utilise a thermal oxidizer which essentially eliminates virtually all volatile emissions. Good local knowledge of the political situation in the municipality is essential here. Rezoning a property to permit industrial uses can be very costly and time-consuming.

- Both good highway and railroad access are critical for biofuel plants. Locally grown feedstock will generally be most economically brought in by truck, but in the event of local shortages the plant may need to source feedstock from greater distances where rail is more cost-effective. In many cases, ethanol or biodiesel will likely have to be shipped a considerable distance and rail access will be important for this purpose. Unless there is a strong local livestock market for DDGS, rail shipment of this important co-product may well be necessary. Where possible, ensure that the rail line can handle unit trains as these will be economically more efficient. Water transportation can also enhance access both to feedstock and transportation of plant products.

- Natural gas is essential for ethanol plants, unless some alternative source of heat (such as anaerobic digestion) is readily available. While there are many alternative energy sources being developed, it is important to bear in mind that innovative technology is generally much harder to finance than proven technologies.

Water Supply: An abundant source of clean water is essential, especially for ethanol plants which consume approximately 3-4 litres of water for every litre of ethanol produced. The quality of the water is also critical as the capital and operating cost of treating water with a heavy mineral content can be quite significant. If it is available in sufficient quantities and at a reasonable cost, municipal water is typically adequate for ethanol plants, although the chlorine in it will ultimately have to be filtered out. The possible environmental impact of drawing water from non-municipal sources must be taken into consideration if municipal water is not readily available at an economic cost. Although determining the impact of taking water from either an aquifer or above-ground water source will likely require specialized hydrogeological investigations, there may be some local knowledge as to the likelihood of being able to draw water from available sources without an adverse environmental impact.

Plant Technology and Construction: The project will require proven technology for the type and size of plant to be built, as well as an experienced, bondable construction contractor. While many start-up projects are fascinated at the prospect of built a leading edge facility utilising the most innovative technologies available, the reality is that projects of this nature are extremely difficult to finance. Although Government and some venture capital funds will be attracted to technologically innovative projects, senior lenders, on whom you'll likely depend for at least half of your financing, traditionally get anxious at any technology that has not been repeatedly proven to perform reliably and consistently.

To the extent that your project incorporates innovative technology you should seek to ensure that your project can still be viable in the event that the innovative component of the technology employed fails. You may also wish to obtain 100% equity financing for the innovative components of your project such that lenders do not have to deal with the risk associated with new technology.

3 – The Feasibility Study

Once you have conducted a fairly comprehensive, albeit informal, pre-feasibility study, you are ready to consider whether a more formal feasibility study is warranted. If any of the key elements outlined above is missing, you should consider alternative methods of obtaining the required conditions for a biofuels plant. Alternative sites may be available in or near the community initially targeted and those sites may have the missing water, rail, or natural gas required for a plant.

The preparation of a formal feasibility study should be entrusted to a qualified professional, ideally someone who is knowledgeable both of the biofuel industry and local conditions, including local legislative and regulatory requirements. This feasibility study will be a critical element in your group's ability to establish the credibility of your project.

While finding someone who meets these criteria who is also knowledgeable about your specific municipality may be difficult, you should certainly endeavour to find someone familiar with both federal and provincial legislation, policies, and programs as well. Given how new the biofuel industry is in Canada, you may have to be realistic about the need for a certain measure of on-the-job training of your consultant in some aspect of the project.

Elements of the Study

The feasibility study will serve to confirm many of the items less formally and rigorously established in your own pre-feasibility study. These will include:

- **The actual availability of feedstock.** While statistical information on local feedstock production will be available from published Government and commodity organization sources, determining the structure of local feedstock demand will require a more detailed examination of existing local buyers, the elasticity of local demand, the ability to bring in feedstock from outside the immediate area and the costs of doing so, and the competitiveness of local feedstock if the construction of a local biofuel plants puts upward pressure on feedstock prices. The availability of local feedstock storage capacity should also be examined as even with an abundant supply of local feedstock there may be insufficient availability of feedstock in areas where that feedstock is traditionally shipped out of the region at harvest time.
- **Confirmation of the markets for ethanol or biodiesel, DDGS or glycerin, CO₂, and any other co-products of the biofuel production process.** Letters of intent with prospective buyers of then products and co-products of your plant would be helpful at this point, but not absolutely indispensable. Realistically, any letters of

intent obtained at this stage will lapse long before you are ready to build your facility and market conditions will change sufficiently that the original terms of such LOIs will likely no longer be applicable. However, LOIs do provide an early indication of interest in the products and also serve to establish relations with prospective buyers at an early stage in the project. Obtaining multiple LOIs will also bolster your group's confidence in the market interest in your project. Comparing the terms and conditions of different LOIs you receive will also assist you when you go to negotiate actual agreements as you will have a better sense of what terms are available in the marketplace.

- **A comprehensive competitive market analysis** which clearly identifies the competitive strengths and weaknesses of the proposed project. Both existing and prospective competitors have to be realistically analysed. It is critical to note that the range of competitors to be examined has to include not only other biofuel producers but also any other large scale purchaser of feedstock. A proposed major expansion in the number of the feedlots or hog barns in a region may pose a competitive threat to the procurement of feedstock, even though the feedstock users will obviously not be competitors with respect to end products. At the same time, the livestock sector will not only be a potential competitor for feedstock but

a key market for the DDGS produced as a co-product of ethanol production.

- **Confirmation of the availability of a suitable property.** While at the stage of a pre-feasibility study your group may well have identified a suitable site for the construction of a biofuel plant, that site must actually be for sale at a economically reasonable price. It is at this point that you may wish to consider obtaining an option on a property. Ideally this option would be for a period of more than one year, or at least renewable, as it will likely be at least two or three more years before your group is in a position to purchase the property for the construction of a plant.

Depending upon local real estate market conditions, purchasing a piece of industrial real estate long in advance of determining the viability of an industrial project may still be a good investment, but that will not be true in all jurisdictions. At this phase in your project, it may also be worthwhile confirming that the zoning for the property meets the proposed use of the site. Written confirmation from the municipal planning department or a Council resolution could be useful and would provide reassurance to prospective investors and other project partners that you have a viable site for the project.

- **Confirmation that proper zoning is in place** or can be reasonably obtained within the timelines for project development, as well as confirmation of the availability of sufficient water, sewage capacity, natural gas, and rail.
- **Detailed pro forma financial statements** (including projected income statement, balance sheet, and statement of changes in financial position for ten years). Assumptions should be based upon solid industry information, including actual average costs of feedstock and prices of ethanol or biodiesel over a minimum period of five to ten years. In addition, an effort should be made to incorporate forecasts of costs, prices, and industry trends from credible third party sources such as government, financial institutions, universities and other institutions independent of any of the industries involved.
- **Solid evidence that members' equity is available for the project and/or that other sources of equity can be secured.** Financing has undoubtedly been one of the greatest challenges faced by start-up value-added agricultural co-operatives in Canada, and the difficulty in securing sufficient financing is greatly compounded in the case of biofuel co-operatives where the project size and the equity requirements exceed the resources of most rural communities. A feasibility study for a project which may involve capital costs in excess of

\$100 million will be seriously flawed if it does not address the fundamental question of whether the local community is able to put together the necessary equity to attract the balance of the funds require for the project.

- **Identification of potential project partners.** For any large scale biofuel project, serious consideration should be given to the possible formation of joint ventures or strategic alliances with other industry players who may be involved in any aspect of the sector from feedstock handling to technology design, construction, or marketing of end products. Such partners may be able to provide not only much needed equity and access to financing, but also technological, marketing, and management resources that could prove extremely valuable in ensuring the success of your project.

The Capital Challenge

While there are many tales out there of projects getting financed with only 25% equity and lenders putting in the remaining 75%, in the real world of biofuel co-operatives you should be prepared to put up at least 50% of the capital cost in equity. The actual equity raised from members may be reduced, however, by offsetting equity injected from various levels of Government. With programs like the recently announced \$200 million federal ecoAgriculture

Biofuels Capital Initiative (ecoABC), farmers' equity investment in biofuel projects may be matched by a deeply subordinated Government loan of up to \$25 million. This program, which is further described below (under "Government Assistance") could potentially reduce the amount of local equity that needs to be raised quite substantially. But like most other Government programs, producers have to be prepared to match anything Government contributes with their own funds.

Confirming the availability of local equity and the commitment of farmers and other community members to invest in a biofuel project is a critical challenge at this stage of a project. In order to create serious interest in a co-operative project of this nature, it is essential to convince prospective investors that the project is feasible and that other prospective partners consider the project and the project developers to be credible. However, owner's equity must always be the foundation of any real business enterprise. For co-operative enterprises, member equity must be the foundation on which outside partners will be asked to build. Premature attempts to seek Government or other support for the project will erode the confidence of both prospective members and other partners in the viability of the project.

It is important to gauge the level of interest among prospective co-operative members on the basis of realistic assumptions of profitability. While there are certainly many

great stories in the industry of plants that have been paid off in less than two years when corn prices were at ten year lows and oil prices at record highs, your Business Plan cannot be based on such extraordinary circumstances and therefore you should not base member investment on such situations.

Likewise it is essential that farmer members of the co-operative appreciate that they will ultimately need to base their investment decision on the projected return on their investment in the plant, rather than on the price they get for their feedstock. Biofuel plants, like any other major feedstock user, will certainly put upward pressure on feedstock prices and that is good for all producers. However, other equity investors and lenders will want to see feedstock purchased at market prices, rather than at artificially elevated prices.

Member Investment and Return

Farmer members should be prepared to accept that their return from the plant will come from some combination of patronage returns and share dividends rather than from the co-operative paying more for their feedstock at the front end. If a co-operative can successfully raise sufficient funds exclusively from farmer members, then it is possible to contemplate schemes where members are paid a premium for feedstock in times of depressed commodity prices, provided that there is a high level of confidence that

biofuel prices will justify paying that higher price for feedstock. With a good risk management strategy, it may in fact be possible to provide members with a higher feedstock price than the market would otherwise dictate. But this will certainly not be attractive to non-farmer member investors.

One possible approach is to establish long-term contracts with members for the delivery of feedstock at an historical feedstock price for a specified term. While locking in feedstock prices will provide lenders with some comfort that upward spikes in prices will be mitigated, those same lenders will be apprehensive about any minimum feedstock prices which cannot be adjusted to take into account downward cycles in biofuel prices. An interesting option for new generation co-operatives entering into feedstock supply agreements with their members is to provide that in the event of adverse market conditions, members can continue to receive a floor price for their feedstock but that payments for that feedstock will take the form of a special class of shares of the co-operative. Because these shares would be issued in times of financial constraint, they might carry particularly attractive features in terms of dividend rates or priority of dividend payment or other rights and privileges. With the consent of the lenders, these shares might even be redeemable once the company returned to profitability.

At this stage of the project it is critical to raise sufficient funds from members to complete the business plan and

conduct whatever preliminary studies are required to obtain additional equity investors and/or Government support. While Governments across Canada are eager to support the efforts of farmers and rural communities to undertake value-added projects in the biofuel sector, Government requirements for accountability and fairness dictate that applications for funding demonstrate that proposed projects are well thought out and have a reasonable chance of success. Strong initial financial support from members will both enable your group to submit credible proposals to Government and demonstrate your group's support in the community. Not only is this important to show that the project enjoys local buy-in; this is also essential to ensure strong political support for your project.

Finally, after you have completed your Feasibility Study, you have to ask the basic question underlying the entire study: Is your project realistically feasible? If there is some major gap identified in the Feasibility Study, you may need to seek alternative solutions. This could range from finding another site to finding an alternative source of energy. But be prepared to admit that the project may not be feasible. While that will undoubtedly be a tough decision to make, proceeding beyond a Feasibility Study in the absence of any solid evidence that the project is feasible could very well cause your group to squander precious community resources.

4 – The Business Plan

While the Business Plan represents the formal document used as the basis for the presentation of the project to prospective investors and lenders, the most important part of this document is the actual process of business planning. Through the business planning process, your group should identify all the significant elements of developing, building, starting up, and operating a biofuel facility and determining a realistic plan for moving the project forward to completion.

The Role of Directors

It is important for Directors to be sufficiently engaged in the process of developing the Business Plan that they can make informed decisions about critical aspects of the business. While your group will almost undoubtedly need the assistance of a skilled consultant with previous expertise in developing projects of a similar scope and scale, it is essential that Directors understand the development of the Business Plan since it is they who will ultimately have to demonstrate that they have the skills and knowledge necessary to serve as the Directors of an operating biofuels co-operative. The Directors will also have to play a central role in selling the project to prospective members, key project partners, Government officials, investors, and lenders. If they are not thoroughly familiar with the Business Plan they will not inspire confidence in others. This is not to suggest that they need to know how every calculation in the Business Plan was made or the detailed

terms and conditions of every agreement. Directors can defer to the professional advisors with respect to specific details of the project. But they should have a good overall grasp of the basic structure of the project and the key elements of the Business Plan.

An Evolving Document

Since the development process for a co-operative biofuel project will likely span several years, it is important to remember that the Business Plan is a living document. Preparing the Business Plan will inevitably reveal gaps and inadequacies in the evolving plan for the business. As the Business Plan is developed further to address these gaps, other parts of the plan will have to change to reflect these developments. For example, the project may have identified a site early on that appeared to be suitable for development, but subsequently is revealed to have a significant environmental issue which precludes the reasonable use of that site. Changing sites will obviously also affect other aspects of the Business Plan. Or in the process of negotiating an agreement with the company designing your plant, you may find that there is some aspect of the project, such as site development, that they will not look after. That can require you to find another firm to look after site development issues, which can result in additional changes to your Business Plan and to your financial projections.

A good Feasibility Study will already contain much of the information needed for the Business Plan. Unlike a Feasibility Study, however, the Business Plan needs to be able to provide solid documentation for all of the assumptions. Most importantly, the Business Plan needs to include reference to the actual contracts, studies and permits underlying the project. Letters of Intent and draft agreements work well in a Feasibility Study; but by the time you are ready to present your Business Plan, you should have complete legal agreements ready to be executed. Since lenders will wish to review all of the draft agreements, you may wish to defer executing these agreements until the lenders' review has been completed.

Supporting Documentation for the Business Plan

Without attempting an exhaustive list of the information required, especially as this list will depend upon the size and strength of the project as well as the experience and credibility of the project developers, the Business Plan can be expected to reference:

- **Draft contracts for the purchase of all feedstock.**

If the feedstock is to be purchased from members of the co-operative, supply agreements for the full amount required should have already been executed. In addition, lenders may wish to see evidence that the members have historically produced the maximum

amount of feedstock required by the plant in the years of lowest production. Alternatively, the co-operative may wish to enter into an agreement to purchase feedstock from an established grain supplier capable of supplying all of the feedstock required by the plant in the event of a major crop failure in the area farmed by co-op members.

- **Draft contracts for the marketing of all ethanol/biodiesel, DDGS or glycerin, and CO₂.** Typically lenders wish to see such contracts extend for at least the projected life of the loan which might be seven to ten years. Shorter contracts which are automatically renewable at the option of the co-operative may also be acceptable. Although Canadian lenders have been reluctant to finance projects which have not had long-term offtake contracts for ethanol or biodiesel with a fixed price formula, usually linked to the rack price of gasoline, more recently lenders have appeared to grow somewhat more comfortable with the fact that ethanol plants can successfully mitigate the risks associated with the independent variation of the commodity prices for feedstocks and ethanol.
- **Detailed information on all of the major project partners,** including the engineering and construction contractor, feedstock supplier, and all product buyers.

Needless to say, when it comes to financing your project there is a distinct advantage in working with major, recognized industry players. The solidity and credibility given to your project by contracts with established companies with demonstrated expertise in their respective fields will be regarded favourably by senior lenders as well as other project investors. With respect to the technology provider for your project, it is likely essential that your project utilises proven technology provided by a well-established and financially strong company. The same holds true for the construction contractor selected for your project. The contractor must be bondable for the size of your project.

The necessity of working with larger and better established companies in order to secure financing admittedly runs contrary to the desire of most community-based projects to work with local companies, which have a greater connection and commitment to the community.

- **Actual possession of the site for the proposed plant or, at a minimum, a binding Purchase and Sale Agreement for the property** with a sufficiently long closing period that there is certainty that the site will be available. Given that a project of this nature could easily take five or more years to bring to fruition, there is good reason to purchase a property outright even before there is

confirmation of funding for the rest of the project. Possession of a property will also make it easier to undertake the necessary environmental and geotechnical studies required.

- **Confirmation of suitable zoning and of the availability of all permits** (including water-taking, air emissions, wastewater discharge, and other applicable permits).
- **Completion of preliminary studies necessary to confirm the suitability of the site for a biofuel facility** including the satisfactory completion of a Phase I Environmental Site Assessment (ESA) to confirm that there is no environmental contamination or hazardous wastes on the property, a preliminary geotechnical study to determine that the soil has sufficient load-bearing capacity for the structures to be built on, an archaeological and/or heritage study to confirm the absence of any significant cultural or archeological artifacts, confirmation that there are no unsettled aboriginal claims to the site that could affect clear title to the property, and other studies that may be required by municipal, provincial, or federal authorities.
- **Evidence that the majority of members' equity and any available funds have already been committed**, even if these commitments are conditional.

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- **Detailed financial projections**, similar to those already contained in the Feasibility Study, but revised to reflect any changes in the market. The financial projections contained in the Business Plan should also be substantiated not only by reference to historical commodity market information (including volumes, prices, and historical deviations from averages) but also by the actual terms of the project's proposed purchasing and offtake agreements. A comprehensive sensitivity analysis should be included indicating the impact of possible variations in feedstock, natural gas, electricity costs and in the prices of ethanol/biodiesel and DDGS/glycerin, and any other major inputs or co-products.
 - **An outline of a risk management strategy** which will ensure that the business can lock in its "crush margin" (the spread between the costs of feedstock and natural gas prices and the price of ethanol/biodiesel and DDGS/glycerin).

5 – When to Incorporate

During the initial exploratory stages of project development, it is likely not necessary to establish a corporation. Aside from the cost of incorporation, incorporation before basic decisions have been made about the form of incorporation and the corporate structure to be established can cost time and money later on as one has to undo corporate structures that have already been established.

Incorporation is necessary once the steering committee is contemplating entering into any kind of legal agreements, such as putting in an offer to purchase a piece of property, signing confidentiality agreements, or establishing binding relationships with prospective project partners, including possible suppliers, contractors, or purchasers of the proposed facility's products. Some Government programs require that a legal entity be established for the purposes of receiving Government funds. Incorporation is also generally necessary in order to issue securities to members or investors, although there is some limited room in most jurisdictions for fund-raising which may not be subject to securities legislation. See below for further discussion of this matter.

Incorporation does help limit Directors' personal liability, although it is important to emphasize that Directors do not entirely escape liability simply by incorporation. Directors' liability is discussed in an earlier section of this document.

Incorporation also provides a certain element of legitimacy to the group in that the group acquires a formal legal existence. It also clarifies the legal responsibilities of the Directors towards the co-operative. Being a Director on a Board provides the group and the individuals with a measure of credibility that goes beyond that typically associated with members of ad hoc steering committees.

Selection of Corporate Form

Community-owned projects generally consider several possible options for incorporation including not-for-profit corporations, business corporations, and co-operative corporations. Although the not-for-profit corporation may be an option for smaller projects, the business realities of raising significant funds from investors typically dictate that a for-profit corporation be selected as the corporate vehicle for biofuel projects. Since most biofuel projects are also intended to put some additional money in the hands of the producers supplying the feedstock to the biofuel facility, a not-for-profit corporation is likely also not suitable for this purpose. Smaller biodiesel facilities, serving a limited number of consumers, could consider this model.

For larger scale biofuel projects, or projects intended to generate profits and dividends for their owners and investor members, a for-profit corporation makes the

most sense. Although there are both certain advantages and disadvantages to incorporating as either a co-operative or a business corporation, both options need to be considered very carefully before deciding on the right corporate vehicle for your project.

Business Corporations

Business corporations are obviously used for the widest range of for-profit, business enterprises. This same basic corporate model is used for both private companies and publicly traded companies. Business corporations are generally structured on the model of one share, one vote, hence the term "shareholders democracy." Profits are typically distributed in proportion to the amount of each shareholder's investment in the business although this can vary in accordance with the preferences established for different classes of shares.

Business corporations have proven to be extremely effective vehicles for mobilizing capital by attracting investors seeking both returns and control proportionate to their financial investment in the capital of the corporation. Profitable business corporations have nearly unlimited flexibility to reward their investors either through the payment of cash or stock dividends, or through the appreciation in the value of their shares, or a combination of the two. Investors are particularly attracted to corporations with a high degree of investment liquidity such as is found in

publicly traded corporations. The lack of liquidity often makes small private companies, with relatively few shareholders, less attractive to investors although this can be offset by commensurately higher returns.

Although unanimous shareholders' agreements may alter the method of distributing profits, provide differential control based on criteria other than investment, or limit the transfer of shares to other shareholders or to non-shareholders, generally the strength of business corporations is seen in their ability to vest both control and earnings in the hands of the largest shareholders.

Since business corporations are usually controlled by the majority shareholders, minority shareholders may not have a significant voice in the direction of the corporation. Majority shareholders seeking to realize on the increased value of their investment may decide to sell their shares to other investors, rendering business corporations susceptible to take-over by a group of internal shareholders or outside investors who offer an attractive price for the company's shares.

Co-operative Corporations

Traditional agricultural co-operatives have been typically involved in the marketing of farm products or in selling crop inputs, feed, and farm supplies to member owners. As co-operatives, they have adhered to the principle of one

member, one vote, as well to the notion of open and voluntary membership. The co-operative model of ownership ensures democratic control of the enterprise since it is always members who vote, not shares. These co-ops have typically had no obligation for members to use the services of the co-operative and members' mandatory investment has typically been small. The combination of low member investment and the absence of any mechanism for ensuring members sell their products to the co-operative or purchase their goods from the co-operative has made these co-ops very sensitive to competitive pressures from other buyers and sellers able to outbid or undercut the co-operative's prices.

Traditional co-ops have paid out any profits (or surplus as co-ops traditionally termed the excess of revenues over expenses) primarily in the form of patronage dividends, although they have also at times paid some basic rate of return on members' investment beyond their required minimum investment. Members' use of the services of traditional co-operatives is unrelated to their investment, except for those established co-operatives providing for the mandatory reinvestment of patronage dividends which are based upon members' use of the co-op. Access to financing has often proved difficult for these co-ops due to the lack of a sufficient incentive to members to invest additional equity in their co-op when they could obtain all the benefits of membership with only a nominal investment.

However, as the use of the co-operative model has expanded for a wider range of rural community projects, the traditional co-operative structure has proven itself useful for enabling the participation of a wide range of community members who wish to see larger value-added projects get started in their communities. While co-operative purists sometimes express concern that persons other than direct "users" of the services of the co-operative participate as investors in these co-ops, the reality is that the co-operative model has proven to be a flexible and adaptable model for projects involving a range of community stakeholders. For biofuel co-ops, participants and beneficiaries of a co-operative project may include not only the producers delivering feedstock to the plant, but also grain elevators, feed dealers, equipment suppliers, workers, local businesses, and other members of the surrounding rural community wishing to benefit from the economic development fostered through the construction and operation of a biofuel plant.

New Generation Co-operatives

When Midwestern American farmers in the 1970s started looking for opportunities to add value to their commodities by entering into various kinds of processing businesses, they looked to the co-operative model because of the democratic, community ownership it could provide to local farmers. But given the substantial capital investment required by most of these value-added businesses, as well

as the assurance of a continuous supply of quality products to the processing facility, a new model was needed to enable producers to raise the funds needed to build these facilities and secure the supply required to operate them.

Although retaining the basic co-operative principle of one member, one vote, these new generation co-operatives, as they came to be called, established the principle that members' investment should be proportionate to their intended use of the co-operative. Members of these new generation co-operatives sign binding supply agreements to ship a specified volume of product to the co-operative and purchase shares in proportion to their supply commitment. In return, members obtain the right, known as delivery rights, to ship that volume of product to the co-operative.

Membership in these co-operatives is generally limited to the first producers willing to make a commitment of the volume of product and the capital required to build and supply the co-operative. These "closed co-operatives" do not admit members beyond those necessary to supply the plant with the raw agricultural products required for production. Since the distribution of the co-operative's surplus (or profits) to members is on the basis of the product delivered to the co-operative, the actual dividends paid out are always also proportionate to the members' investment in the co-operative. In this way, new generation co-operatives serve as somewhat of a hybrid between the

traditional co-operative method of allocating profits on the basis of business with the co-operative and the typical business corporation model of distributing net returns on the basis of shareholder investment.

Like other co-operatives, new generation co-operatives are resistant to take-over by either inside or outside investors since each member has only one vote, regardless of their shareholdings. New generation co-operatives are most successful at attracting member investors when there is not a huge disparity in the size of members' investment, as larger producers may be deterred by the disproportion between their investment and the fact that they can exercise only the same single vote as members with a far smaller investment in the co-operative.

The strength of the new generation co-operative model is to be found in the link between members' commitment of supply to the co-operative and their proportional investment in the co-operative. The co-operative's commitment to purchase all of its members' product also provides a significant incentive to members to support their co-operative.

For biofuel co-operatives, the new generation model has the additional benefit that members obtain a nearly perfect hedge for both the commodity prices of their product and their investment in the biofuel plant. Assuming constant ethanol or biodiesel prices, when feedstock prices are low,

members are likely to obtain a higher return from their investment in the plant. When feedstock prices rise, the lower return on their investment in the biofuel facility is offset by higher commodity prices. In either situation, producer investors should be able to secure positive net income, something which as suppliers alone or as only investors they could not ensure. Of course, there are never any guarantees in business, and low corn prices accompanied by even lower fuel prices could limit producers' investment on both sides of the supply chain.

6 – Financing your Project

While there are many challenges to financing a biofuels co-operative, likely the biggest hurdle is raising sufficient funds. The equity investment required to build a biofuel plant is typically greatly disproportionate to the net revenues available to farmers producing the feedstocks which would supply the plant. For an ethanol plant, the net equity investment required, assuming a 1:1 debt to equity ratio, is on the order of \$4.00 to \$4.50 per bushel. For biodiesel plants, the net equity investment is likely on the order of \$2.00 to \$2.50 per bushel. Given the kinds of returns available in most years from cash cropping, it is easy to see why raising this kind of equity can pose a seemingly insurmountable challenge.

Yet member equity must form the foundation for any successful co-operative enterprise. Without their investment, members cannot expect to have the ownership and control of their enterprise which is an integral part of their motivation to form a co-operative. With a solid base of member equity, it is possible to raise additional equity or deeply subordinated debt from other investors, including Government.

Under the newly announced Capital Formation Assistance Program which is to provide biofuel projects with matching capital for farmer investments in the form of deeply subordinated debt, of up to \$25 million per project, the producer

investment could potentially be reduced to roughly \$2.00 per bushel for ethanol plants, and \$1.00 per bushel for biodiesel plants.

It is because of the challenges in raising this sort of equity from producers that most of the community-based biofuel projects under development today are seeking to attract not only farmer members, but other members of the rural community as well.

Raising Funds from Members – the Equity Drive

As noted above, it is a good idea to be incorporated prior to raising any significant amount of funds. Incorporation is essential if your group is planning to issue securities of any kind to members or investors. In Canada, the issuance of securities is subject to securities legislation which is under provincial jurisdiction. Although securities legislation varies quite significantly between provinces, it is essential to consult with the appropriate Government regulators or with a qualified securities lawyer or other professional familiar with co-operative securities before issuing any securities. Provincial co-operative associations or the Canadian Co-operative Association can likely assist you in identifying local resources.

Most provinces have exemptions from securities legislations which may assist start-up companies to raise seed money up to a prescribed maximum amount, or issue securities to a limited number of investors, investors who are related parties, or “sophisticated” investors. Exemptions are also common for issuance of securities by co-operatives, provided the co-operatives comply with the relevant provincial requirements for the issuance of securities by co-operatives. In many jurisdictions, issuing securities as a co-operative is less onerous and costly than would be the case for a company offering securities to the general public, although the standard of full, true, and plain disclosure applies equally to the issuance of the securities of co-operative and business corporations.

The definition of securities can be very broad and typically encompasses any shares, stocks, bonds, debentures, loans (other than loans from recognised financial institutions such as credit unions, caisses populaires, or banks), units, options, subscriptions, and any documents indicating an interest in the capital, assets, property, profits or earnings of a company. Agreements providing that money advanced will be repaid or treated as a subscription to shares or other interest in a corporation are also regarded as securities.

If your group is contemplating raising funds in any fashion, make sure that you consult with a qualified securities lawyer or other person familiar with the issuance of the types of securities proposed to be issued. Securities

lawyers are sometimes less familiar with issuance of securities by co-operatives or not-for-profit corporations. If you are establishing a co-operative, Government officials responsible for co-operative regulation should be familiar with the requirements for issuing securities and they are often the best initial source for advice.

In most provinces, a disclosure document is necessary before issuing any securities, other than securities which are specifically exempt from the requirement to file a disclosure document. The purpose of such a document is to provide investors with “full, true and plain disclosure” of all facts which could be material to their investment decision. At a minimum, this typically requires a general description of the proposed project or business activity, an outline of the business plan, information on the Board of Directors and/or project promoters, and the proposed use of the funds to be raised. Most importantly, disclosure documents require a clear and complete statement of all risks associated with an investment in the project.

Even where exemptions exist for the issuance of certain types or amounts of securities, it is still a good idea to provide prospective members and investors with some kind of a disclosure document. Such a document serves to provide prospective investors with a clear, written summary of the project. By outlining the risks associated with the project, along with the measures the project developers will take to mitigate those risks, you will be giving prospective

investors sufficient information up front that enables them to make an informed investment decision.

Aside from such obvious benefits as being able to have a clear conscience in knowing that you have been completely open and honest with the people putting money into your project, full disclosure is essential to limit Board liability.

It also helps keep investors and members on board over the course of what is bound to be several years of project development in which you encounter many unexpected obstacles and face numerous disappointments and changes in directions. By preparing your investors for the risk-riddled road ahead, you will be sure that the early supporters of your project remain supportive during the difficulties you are certain to encounter several years down the road. Community-based biofuel projects are not get-rich-quick schemes, and you are best off not to attempt to attract investors interested in those kinds of schemes.

After your group raises the initial funds required for your Feasibility Study, Business Plan, and preliminary project development, you will need to prepare a comprehensive offering memorandum, offering statement, or prospectus to raise the capital required for project construction. This document will contain key information from your Business Plan and will set out all material contracts into which your co-operative has entered, along with material project details such as the technology to be utilised, the site

location, and all permits and regulatory approvals required. In all likelihood, regulators will require that you raise most of the funds in escrow to ensure that investors are protected in the event that you fail to raise sufficient equity or if the project does not proceed for any other reason.

Government Assistance

There are several important federal programs currently available to encourage producer involvement in the formation and ownership of biofuel projects.

Biofuels Opportunities for Producers Initiative (BOPI)

http://www.agr.gc.ca/acaaf/bopi-imbp/index_e.php

The Biofuels Opportunities for Producers Initiative (BOPI), an initiative under the Advancing Canadian Agriculture and Agri-Food (ACAAF) Program, is designed to help farmers and rural communities hire experts who can assist in developing business proposals and undertake feasibility and other studies necessary to create and expand biofuels production capacity involving significant (greater than one-third) ownership by agricultural producers. Eligible projects may receive up to \$300,000 which must be matched by a minimum 25% investment by the group.

Agricultural Bioproducts Innovation Program

The Agricultural Bioproducts Innovation Program (ABIP) is a \$145 million, multi-year program that seeks to mobilize Canada's academic, private and public sectors to integrate resources to build greater research capacity in agricultural bioproducts and bioprocesses. Through supporting networks and clusters, the program promotes research, development, technology transfer and commercialization activities in areas such as biofuels, other forms of bioenergy, biochemicals, biopharmaceuticals, etc.

ecoAgriculture Biofuels Capital Initiative

This is a new \$200 million, four-year program designed to encourage agricultural producers' participation in the renewable fuels industry. The program will provide repayable capital funding arrangements to renewable fuels projects based on agricultural producers' contributions to the biofuels facilities. It will also build on the existing Biofuels Opportunities for Producers Initiative's technical feasibility and business planning components by providing agricultural producers with incentives for participation in new renewable fuels production capacity, starting on April 1, 2007.

The individual capital funding arrangements will be based on the level of producers' contributions to eligible project

costs and capped at the lesser 25% of total project costs or a maximum of \$25 million per project.

Program details are available at: www.agr.gc.ca/ecoabc

Other Equity Partners

On the assumption that the Feasibility Study and Business Plan for your biofuel project demonstrate that there is an economically viable opportunity in your community, the lack of sufficient farmer or community equity does not need to present an insurmountable challenge to developing a biofuel facility with significant local investment. On the basis of your Business Plan, you may be able to attract potential project partners who are interested in participating in the project.

Other equity investors may be interested in the project strictly as investors seeking a return on their investment. There are obviously a plethora of venture capital and equity funds constantly looking for investment opportunities. While such investors may very well make good partners, there may be additional advantages to finding partners involved in some of the other aspect of the industry who see an opportunity to bolster their own core business activity through investment in a biofuels facility. Such partners could include grain elevators or dealers, independent fuel distributors, engineering or construction companies, feed companies, or others interested in some aspect of the local farm economy.

Choosing the right partners is critical to the success of your venture. The right partners will contribute to the success of a co-operative venture by their ability to bring:

- Additional equity and access to capital;
- Specific sectoral business expertise;
- Management abilities;
- Established networks, including markets, suppliers, engineers, lenders, etc;
- Credibility.

Debt Financing

With a strong Business Plan and solid support from your members, investors, and other project partners, you will be ready to begin approaching lenders for their support. Debt financing for start-up projects, commonly referred to as project financing, is certainly the most challenging type of debt to obtain from traditional financial institutions.

Co-operatives have also traditionally faced some hurdles specific to their structure when approaching financial institutions. These have included the widely held, democratically controlled nature of co-operatives rather than the sole or few owner-operators of traditional start-up business corporations. The separation of ownership and professional

management has also been a challenge as the Directors of value-added co-operatives typically do not have any previous experience in the sector in which they propose to do business. The lack of personal guarantees from individual owners has also made it difficult to obtain financing for co-operative start-ups.

Combine the difficulties of project financing with the risks associated with the biofuels sector and the special challenges of community-based co-operative enterprises and one can readily appreciate the hurdles facing the biofuel co-operatives currently under development in Canada. This is why it is absolutely essential for member equity to be the foundation of for all co-operative financing. Director investment is particularly important because it demonstrates that those responsible for the governance of the co-operative have a significant personal stake in the success of the enterprise.

At a minimum, lenders will require:

- Proven technology provided by established technology providers with clear title to all patent and intellectual property rights;
- Certainty of supply, with long-term binding agreements with well-established feedstock providers for all or most of the plant's feedstock requirements. If your plant proposes to purchase feedstock from

farmer members, you will need to ensure that your co-operative has executed legally binding agreements with members for the supply of that feedstock. You should also have alternative sources of supply available in the event that there is a significant regional crop failure;

- Confirmed markets for all products, with signed long-term agreements for both the biofuels and principal co-products;
- A comprehensive risk management strategy, provided by a reputable risk management firm, for key inputs, including feedstock and natural gas, as well as for the biofuels and principal co-products;

- A minimum of 50% equity, including deeply subordinated debt and Government grants;
- A strong management team, with a credible Board of Directors and reputable project advisors. Ideally, plant management would already be identified when your group is in the credit review process, but at a minimum you should be able to outline a management recruitment strategy which will ensure your plant will attract capable management.

Appendix I - Industry Websites

Canadian

Canadian Renewable Fuels Association
www.greenfuels.org

Canadian Co-operative Association
www.coopscanada.coop

Natural Resources Canada
www.nrcan.gc.ca

Office of Energy Efficiency
www.oeenrcan.gc.ca

Sustainable Development Technology Canada
www.sdtc.ca

Agriculture and Agri-Food Canada
www.agr.gc.ca

Strategis
www.strategis.gc.ca

Saskatchewan Ethanol Development Council
www.saskethanol.com

Soy 20/20
www.soy2020.ca

American

Renewable Fuels Association
www.ethanolrfa.org

American Coalition for Ethanol
www.ethanol.org

Governors Ethanol Coalition
www.ethanol-gec.org

Fuel Ethanol Workshop
www.fuelethanolworkshop.com

National Biodiesel Conference
www.biodieselconference.org

BBI
www.bbiethanol.com

Ethanol Marketplace
www.ethanolmarketplace.com

University of Minnesota
www.ddgs.umn.edu

DTN Network
www.dtn.com

Guide for Evaluating the Requirements of Ethanol Plants
<http://www.ne-ethanol.org/industry/evalreq.pdf>

National Biodiesel Board

www.biodiesel.org

National Corn Growers Association

www.ncga.com

National Ethanol Vehicle Coalition

www.e85fuel.com

U.S. Department of Agriculture

www.usda.gov

USDA CCC Bioenergy Program

www.fsa.usda.gov/daco/bio_daco.htm

U.S. Department of Energy

www.eere.energy.gov/biomass

U.S. Energy Information Administration

www.eia.doe.gov

U.S. Environmental Protection Agency

www.epa.gov

***Provincial / Territorial
Industry Councils***

The Biofuels Opportunities for Producers Initiatives (BOPI) Program forms part of the Advancing Canadian Agriculture and Agri-Food (ACAAF) Program, and is accessible to producers across Canada through the Industry Councils established under ACAA. These Industry Councils can also provide a wide range of support to related agricultural initiatives. Complete contact information for the Industry Councils is as follows:

Alberta

Agriculture and Food Council

Telephone: (780) 955-3714

FAX: (780) 955-3744

Email: info@agfoodcouncil.com

Internet: www.agfoodcouncil.com

British Columbia

Investment Agriculture Foundation of B.C.

Telephone: (250) 356-1662

FAX: (250) 953-5162

Email: info@iafbc.ca

Internet: www.iafbc.ca

Manitoba

Manitoba Rural Adaptation Council

Telephone: (204) 982-4790
FAX: (204) 982-4794
Email: mracinfo@mrca.ca
Internet: www.mrac.ca

New Brunswick

New Brunswick Agriculture Council Inc./Conseil Agricole du Nouveau Brunswick Inc.

Telephone: (506) 450-3891
FAX: (506) 450-7197
Email: acaafpascaa@nb.aibn.com
Internet: www.nbfarm.com/nbac-canb/

Newfoundland and Labrador

Newfoundland and Labrador Agri-Adapt Council Inc.

Telephone: (709) 747-4874
FAX: (709) 747-8827
Email: fed.agric@nf.sympatico.ca
Internet: www.nlfa.ca/aaci.htm

Northwest Territories

Territorial CARD Committee

Telephone: (867) 874-4706
FAX: (867) 874-3641
Email: farmnwt@northwestel.net
Internet: www.farmnwt.com

Nova Scotia

Agri-Futures Nova Scotia

Telephone: (902) 925-2454
FAX: (902) 925-2594
Email: r.williams@pchg.net
Internet: www.agri-futures.ns.ca

Nunavut

Nunavut Harvesters' Association

Telephone: (867) 645-3170
FAX: (867) 645-3755
Email: brian@ndcorp.nu.ca
Internet: www.harvesters.nu.ca/index.htm

Ontario

Agricultural Adaptation Council

Telephone: (519) 822-7554
FAX: (519) 822-6248
Email: info@adaptcouncil.org
Internet: www.adaptcouncil.org

Prince Edward Island

PEI ADAPT Council (Adaptation Development Agricultural Production Technology Council)

Telephone: (902) 368-2005
FAX: (902) 368-2520 (phone first)
Email: adapt@pei.aibn.com
Internet: www.gov.pe.ca/af/agweb/index.php3?number=1007905&lang=E

Quebec

Conseil pour le développement de l'agriculture du Québec (CDAQ)

Telephone: (450) 679-0540, ext 8353
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