

**FOREST CO-OPS  
AS AN  
OWNERSHIP MODEL  
TO  
AGGREGATE FOREST BIOMASS**

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**Overview:**

This document was drafted to provide an overview and exploration of the possible role a forest owner co-op could play to aggregate biomass. The primary audience is the Willamette Valley Biomass Working Group; which is a partnership of businesses, nonprofits and local government exploring the potential of different biomass flows for energy.

Aggregation and collaboration of small forest landowners holds much promise in the host of emerging markets ranging from Forest Stewardship Council (FSC) certified wood to biomass or from carbon credits to non-timber forest products. This paper is primarily focused on forest biomass as it holds the potential to gain added value from the production of energy or fuel. In addition, whereas the Federally-owned and industry-owned forests will have their own solutions to utilizing forest biomass, non-industrial private forest landowners will find their own approach.

Forest owners have specific needs they cannot address alone. Timber is not an annual crop and a single-age plantation of evergreens typically requires over a half-century between harvest “rotations.” Additionally, many of the emerging markets (i.e. carbon, certification, etc.) require a scale beyond most individual private forest land owners.

**Description**

A co-op of agricultural commodity producers, e.g. potato producers, is a business designed exclusively to serve and pass on benefits to the member-owners. The members would own, control and utilize the business. For example, if forest owners could enter into business to “add value to their forest products” then the benefits conferred to members would be measured in quantities of board feet, biomass utilized, etc.

Co-op business models typically involve aggregation of similar producers with goals of maximizing their mutual interests. Through growing an economy of scale, co-ops achieve increased purchasing or bargaining power or integrated supply-chain processes, such as transportation and processing. This model could be implemented in at least a couple different ways, from a group of farmers forming a co-op to start-up a single project (e.g. dairy farmers launching a digester) or as bargaining association (e.g. Perennial Ryegrass Bargain Assn.).

Forest owner co-ops seek to organize timber producing landowners to collaborate on a variety of fronts as the following examples will illustrate. Models are being developed around the U.S. to respond to changing industry dynamics ranging from declining profitability of forest commodities to industry divestiture of domestic land holdings. Co-ops, as a business model, seek to leverage control and value to producers, e.g. small forest landowners.

## Examples

The Pacific Northwest has a variety of high profile and successful ag co-ops. That said, few if any are currently engaged in energy and/or fuel production outside of CHS; CHS is the nation's largest co-op and owner of US BioEnergy and Provista. A few examples of Oregon's regional agricultural co-op business models are:

- Pendleton Grain Growers
  - Vertically integrated grain aggregator offering agronomy, marketing, transport and storage; recently purchased a biodiesel processor and may utilize it to brew biodiesel if/ when commodity markets change dynamics
- Hazelnut Growers Bargaining Assn.
  - Negotiates an annual minimum grower field price in the Willamette Valley which produces 99% of the domestic hazelnut crop; receives payment based on member tonnage
- Tillamook Co Creamery Assn.
  - Markets and processes dairy products for 130 farmers
- Wilco
  - Farm supply co-op providing agronomy, petroleum, and specialty retail farm stores

There are many forest owner co-ops outside the Pacific Northwest, such as:

- Blue Ridge Forest Co-op
  - Provides management advice, low-impact harvesting and processing and marketing of value added forest products
- Massachusetts Woodlands Co-op (an LLC and 501(c)3 operating like a co-op)
  - Provides group FSC certification and members provide co-op with first rights of refusal for timber sales; co-op identifies low-value timber for local processing and provides above market rate

There are only three forest owner co-ops in the Pacific Northwest:

- Oregon Woodlands Co-op (OWC):
  - Provides four key components to members, "clearinghouse, cooperative marketing, member operational services, and professional provider network"
- Methow Forest Owners
  - Members receive access to "preferred providers" for consulting foresters
- Northwest Sustainable Timber Growers
  - Group FSC certification

## A Potential Model for Biomass

Co-ops can manage a supply-chain, add value and/or act as a "bargaining association" where the primary role is to identify the market and negotiate a rate.

The Oregon Woodlands Co-op's "Coordinated Cooperative Marketing" portion of their business plan has the following sections:

- *Product Scheduling*
- *Non-timber Forest Product Market*
- *Coordinated Member Operational Services*
- *Shared Equipment – Rental between members*
- *Equipment Rental – Cooperative-owned equipment*
- *Firewood Processing*
- *Specialty Milling*
- *Shared Purchasing*
- *Shared Contract Services*

In theory, OWC could explore a potential section "Marketing Currently Non-commercial Woody Material" which would explore the utilization of residues from pre-commercial thinning and harvest (i.e. slash).

The Working Group conducted a series of "stakeholder interviews" and several active members of the Lane County Chapter of the Oregon Small Woodland Association were interviewed. At least one landowner mentioned that when chip prices were high in the past, they were solicited by an outside firm who wanted to come and grind up and off take the waste (i.e. slash); which they did. Landowners will need to designate somebody to watch this market, so they can know if they are leaving money on the table.

Conversely, small forest landowners own land for a variety of reasons and maximizing profit frequently isn't the top priority and often stewardship, habitat, recreation and aesthetics are. Furthermore, during the interviews more than one landowner expressed concerns about removing nutrients from the soil through more intensive biomass utilization.

### **Co-op Business Model Advantages**

The key advantage for a co-op is that control is kept with those who utilize it and the business exists for their benefit. Profits are returned to members in proportion of use. Like LLCs, co-ops are not subject to double taxation.

Producer co-ops seek to transform the role of input suppliers from being passive "price takers" to active "price setters." Obviously, it's not in the interests of an absentee investor to play this role. In other words, if the forest owners don't build this business, most likely nobody else will. Conversely if they do, then they will have their economic interests, not the forest owners, at heart. The forest owners have a compelling economic stake in the development of a biomass industry.

Additionally, under the Capper-Volstead Act some ag co-ops and associations are provided limited anti-trust protection.

The forest co-ops mentioned above provide innovative solutions to a host of economic problems for landowners. They keep economic surplus local by returning and realizing more value to the landowner.

### **Co-op Business Model Disadvantages**

Co-ops, by their nature, have restricted access to private capital and thereby can limit the desire of “other people money” to be involved. Democratic decision-making can be a slower process. There are increased costs for member communications in a co-op. The business is there to primarily serve member owners (e.g. forest owners) who also have a say in governance.

Forest landowners own land for a variety of reasons, only one of which is increasing income through active management. That said, many landowners who may rate income as a lower priority compared to other priorities may still seek to obtain it provided the opportunity.

Additionally, many landowners may lack an understanding or knowledge of the benefits of planned sustainable management of their forests. Therefore, landowners may not organically be drawn into a business which seeks to increase value to their land.

### **Implications: tax, security, legal and accounting**

Subchapter T is default Federal taxation for producer co-ops. The National Society of Accountants for Cooperatives can provide a connection to a CPA who is familiar with the specifics of maximizing patronage dividends and retained member earnings.

### **Roadmap - What will it take to organize the business**

At the most basic level a co-op is going to need one thing: *a committed and motivated core group of people to move the project forward and eventually mobilize the membership*. Almost exclusively this exploration of mutual benefit will result from a compelling economic need; such as the marginal economics and changing politics of dealing with forest biomass.

The group of potential members will explore business the concept/plan and research the viability of the business.

Co-ops incorporate under Chapter 62 of the ORS.

### **Types of co-op activities that might be most relevant to biomass energy:**

Options:

- Bargaining association to control the majority of low value forest biomass and identify highest value for energy development be it export, chips, pellets or transportable fast pyrolysis bio-oil, etc.

- Group of willing forest-owners seek to capitalize a specific project or equipment for their respective forest biomass venture

## **ISSUES AND OPPORTUNITIES TO THE REGIONAL DEVELOPMENT OF FOREST CO-OPS**

### **Demographics and Potential Members**

A sufficient number of forest owners would be required to gain adequate economy of scale to hire in a manager. A large, active and involved membership is critical to the success of any co-op and this could not be more true for a co-op of forest owners.

In comparison to the rest of the U.S., a disproportionate amount of the Pacific Northwest's land is Federal or industrial. There have been tectonic shifts in the trends in landownership in the West towards more fragmentation which a forest co-op could respond to.

Without an economy of scale, not only are economics marginal but any business with deficient internal infrastructure will fail. Forest co-ops because of under-capitalization or lack of involvement can succumb to this pit fall as well.

Another aspect of working against participation in forest co-ops in the West are attitudes. American "rugged individualism" can be found in its most extreme form in the Northwest; landowners from the Olympic Peninsula to the Willamette Valley may immediately be suspicious of a business which they perceive may require them to subordinate their individual interests, i.e. lessening of property rights. This can be addressed through effective and strategic communication of the benefits versus costs.

### **Capital access**

Co-ops are a proven way to economically organize producers to participate in a project but not as attractive for taking in large sums of hungry, quick-in and quick-out venture capital. This is the trade off for co-ops being inherently more local and democratic than an absentee-owned project.

While co-ops can sell nonvoting preferred stock there is typically a limitation of 8% ROI; this limitation will discourage the more demanding venture capital. To combat this dynamic, newer models have been designed; these range from the LLC, the LLC/co-op hybrid to a joint venture between a co-op and an LLC.

Conversely, these capital restrictions may have an upside. If the goal of the business is service, e.g. utilizing waste biomass at a higher value, and not rapid and dramatic return on investment then a co-op can operate "at cost." Furthermore, a co-op's intimate engagement of feedstock can lay tracks for an otherwise marginal project. Co-ops can operate "at cost" because their primary benefit is their existence and the benefit they

confer to members which may or may not be a large patronage dividend depending on the business model.

This factor may potentially limit, probably for good reason, landowners from capitalizing a large project, i.e. log sort yard, mill, kiln, etc.

### **Location of Facility**

Proximity is key. If a co-op's project sought "bricks and mortar" construction (i.e. log sort yard, mill, etc.), it would most likely be located close to feedstock. Raw biomass is not concentrated or not yet densified; therefore, it is much more expensive to transport. For most biomass energy projects, proximity to feedstock is key to the economics. Additionally, co-op members are also community members and usually envision a local project employing and benefiting their community.

### **Marketplace Response**

The primary disadvantages of being intimately linked to input feedstocks are the risk that the business would exist primarily to "off-take" a specific product, i.e. waste biomass. This model doesn't lend itself to a rapid processing equipment retrofit and importation of a potentially cheaper, new and different feedstock down the road.

### **Energy Costs**

As power and fuel increase in price, forest biomass could potentially increase in both cost and worth to the rural landowner. Additionally, the downturn in housing has led to a decline in mill output, which has limited the supply of sawdust and hog fuel in general.

### **Keeping the Dollars in the Local Region**

Co-ops both increase the value retained by the producer and retain more value and dollars locally circulating with its business activities. Typically net profits can be distributed in cash (i.e. patronage dividend) and/or reinvested in the business. Locally-owned projects tend to source administration, debt and supplies locally therefore having a greater impact on the local economy than an absentee-investor built-owned-operated facility.

### **Areas for Further Exploration as Relate to Co-op Development**

In the Midwest, there has been discussion around farm supply co-ops (e.g. Wilco) being well-positioned to aggregate biomass because they are already in the crop aggregation and landowner services business.

Most likely, forest contractors, processors, etc. further up the supply-chain will be more closely involved in biomass aggregation. These are the businesses already on the ground and in this role for the broader forest products industry. Perhaps, there is an opportunity for these entities to economically collaborate. For example, does the Northwest Log Truckers Cooperative have an opportunity for an expanded role?

## **Conclusion**

Forest owner co-ops could provide a key role in aggregating biomass. They are a proven model internationally and domestically.

In all reality, a forest owner co-op would most likely be formed to meet a host of landowner needs and not specifically focus just on marketing biomass, much like the Oregon Woodlands Co-op.

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