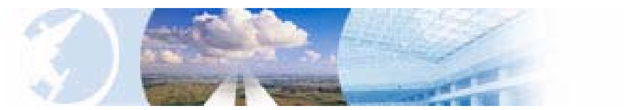
# The Status Of The Value-added Wood Product Development Initiative in the Grande Alberta Economic Region



February, 2005

**Submitted by: Kelvin Mak,**
**Senior Manager, Forest Industry Practice Leader**

MEYERS NORRIS PENNY LLP

500 West Tower, 14310-111 Avenue
Edmonton, Alberta
T5M 3Z7

# TABLE OF CONTENTS

# I. INTRODUCTION AND BACKGROUND

The Grande Alberta Economic Region (GAER) was introduced in 2001 together with 11 other Economic Regions as part of the regional economic development initiative of the Alberta Government. As shown in Exhibit 1, GAER covers a large geographical area of the province, bordering the Jasper National Park in the west, extending to the Drayton Valley Region in the south, Fox Creek in the north, and Onoway in the east.

At the inception of the region, a management committee consisting of regional representatives from different walks of life was set to develop and implement economic agendas the region develops. The GAER Management Committee identified that promoting development in the value-added wood industry should be one of the major priorities in setting its mandate. As a result, a value-added wood industry working group was established to oversee the implementation of this initiative. The working committee met a few times and several opportunities were initially identified. However, since this initial effort, this committee, for all intents and purposes, has been dormant and the value-added wood industry initiative appears to have lost its momentum.

In light of this development and in effort to update the mandate of GAER, the GAER Management Committee would like to reaffirm whether value-added wood products should remain as a priority on the economic development agenda of the region. Thus, it has requested that Meyer Norris Penny LLP (MNP) prepare a briefing paper that provides a situational analysis of the forest products industry, particularly the value-added wood products industry, in the region with the goal of determining the need for future support for value-added wood product as a regional economic initiative.

This paper is structured in the following way:

- Section 1 provides an introduction and background for the paper.
- Section 2 is a situational analysis that highlights the current state of the forest industry and value-added wood products industry in Alberta and the region. It also provides an environmental scan.
- Section 3 provides an assessment of the potential for value-added wood industry development in GAER.
- Section 4 identifies a number of success factors critical to the development of the value added wood products industry.
- Section 5 provides our conclusion and recommendations.

Exhibit 1
*Location of the Grande Alberta Economic Region*

# II. A SITUATIONAL ANALYSIS

## a. Industry Development

The forest industry in GAER went through a period of rapid expansion during the late 1980s and 1990s. New products and production capacity were added. As a result, the forest industry in GAER is the largest (in terms of production and sales) and most diverse (in terms of the product range) among all economic regions in Alberta. As shown in Exhibit 2, the most important products produced by the forest industry in this region are: dimension lumber (lumber used in house construction in North America), oriented strandboard (OSB, a type of reconstituted panel by pressing a mix of wood strands and resin under pressure), medium density fibreboard (MDF, panelboard made of wood residues commonly used in furniture, cabinets and mouldings), specialty lumber, bleached kraft softwood pulp, bleached chemi-thermo-mechanical pulp, and newsprint.

The major characteristics of the forest industry in the region are:

- Accounting for more than 35% of total forest industry shipments from Alberta—The forest industry in the region is the largest among all economic regions. Its total value of shipments average above $1.5 billion per year (out of $4 billion).

- Producing the largest volume of dimension lumber—the sawmills in the region produce close to 1 billion board feet of dimension lumber (lumber mainly used in housing construction in North America), and this represents about a third of the total provincial production. (Total Alberta lumber production averages 3.2 billion board feet per year.)

- Three firsts in Alberta—the region witnesses the first and only medium density fibreboard mill and newsprint mill in Alberta. These two products are not available in other economic regions. Also, there is a specialty sawmill which produces a variety of value-added lumber for use in furniture, traditional housing construction in Japan, and interior decoration.

- A major employer in many communities—the forest industry is one of the largest employers in the region, with more than 4,500 direct employees. The economies of many of the local communities are dependent on the forest industry as the driver of economic sustainability.

- Two pilot wood waste fire power plants—Both Drayton Valley and Whitecourt are the sites of Alberta's first power plants that use sawmill residues and pulp mill sludge as feedstock.

- Underdeveloped value-added wood product sector—as most other regions in Alberta, there are only a small handful of value-added wood product players in the region, reflecting the underdevelopment of this sector in this region.

As a whole, while the region's forest industry is slightly more advanced along the value-added chain, it is still commodity oriented.

## Exhibit 2

**Forest industry operations in the Grande Alberta Economic Region**

| | Mill type | Product | Annual Capacity |
|---|---|---|---|
| **Hinton** | | | |
| Weldwood of Canada/West Fraser | Sawmill | Dimension lumber | 250 million board feet |
| | Pulp mill | Bleached kraft softwood pulp | 400,000 tonnes |
| **Edson** | | | |
| Weyerhaeuser C. Ltd. | Panelboard mill | Oriented strandboard (OSB) | 380 million sq. ft., 3/8” |
| Sundance Forest Industries Ltd. | Sawmill and value-added wood | Specialty lumber | 90 million board feet |
| Yellowhead Forest Products. Ltd. | Value-added wood | | 8 million board feet |
| Tall Pine Timber Co. Ltd. | Sawmill | Rough dimension lumber | 8 million board feet |
| **Drayton Valley** | | | |
| Weyerhaeuser Co. Ltd | Sawmill | Dimension lumber | 150 million board feet |
| | Panelboard | OSB | 380 million sq. ft., 3/8” |
| **Whitecourt** | | | |
| Millar Western Forest Products Ltd | Sawmill | Dimension lumber | 200 million board feet |
| | Pulp mill | Bleached thermo-mechanical pulp | 300,000 tonnes softwood and hardwood BCTMP |
| Blue Ridge Lumber Ltd (West Fraser) | Sawmill | Dimension lumber | 250 million board |
| | Panelboard | Medium density fibreboard | 380 million sq. ft., 3/8” |
| | Value-added facility | MDF moulding | |
| Alberta Newsprint Company Ltd. | Newsprint mill | Newsprint | 280,000 million sq. ft. |
| **Grande Cache** | | | |
| C&C Wood Products Ltd. | Value-added wood products processing | Pine paneling | NA but dependent on wood supply |
| **Fox Creek** | | | |
| Mostowich Lumber Ltd. | Sawmill | Dimension lumber | 30 million board feet |
| **Fort Assiniboine** | | | |
| Timeu Forest Products Ltd. | Sawmill | Dimension and rough lumber | 25 million board feet |

## b. The value-added wood industry in Alberta

As it stands, the value-added wood industry in Alberta is substantial in size, with annual sales amounting to close to $1 billion. This sector is quite diverse in terms of the product range, but is quite unique in terms of it development background. For one thing, it has developed almost independently of the primary industry. In other words, the industry at this point does not use much Alberta-based primary products. For example, the furniture industry uses mostly imported particleboard and medium density fibreboard. The millwork industry uses oak, ponderosa pine and other exotic species that are all imported from other regions. To some extent, even the truss and I-joist industry use lumber from BC. The upshot is that the Alberta value-added and primary industries do not have a history of integration.

Another interesting characteristic of the value-added wood industry in Alberta is that this industry is mainly located in the major urban centres—Calgary and Edmonton. The underlying cause for this development is that this sector is more consumer-oriented and its products tend to be too bulky for shipping; thus it makes more economic sense for it to be close to the population centres. However, this development pattern, while prevalent in other jurisdictions, underscores the slow development in the value-added sector in rural areas.

How about the value-added wood products sector in GAER? There is a little bit of everything. What follows are highlights:

- First, the MDF plant near Whitecourt produces stock for moulding plants in Edmonton and Calgary. MDF moulding has surpassed solid wood moulding in residential housing projects.

- Second, Sundance Forest Industries is a specialty sawmill producing lumber for joinery products, furniture and panelling.

- Third, Millar Western produces some lumber for the industrial market at its old sawmill in Whitecourt using lodgepole pine and aspen.

- Fourth, there are a few small operators processing aspen and birch for rough lumber.

- Fifth, there are also a few custom furniture and cabinetmakers.

In addition, C&C Wood Products Ltd. of Prince George has recently acquired Weyerhaeuser's sawmill in Grande Cache with the intention of producing paneling products from the existing fibre base. C&C is quite experienced in making value-added products like paneling and its venture at Grande Cache could have some demonstration effect on the rest of the industry in Alberta.

## c. Environmental scan

Canada's forest industry is one of the most export-oriented sectors in the country; it is particularly dependent on the US and Japan as its main market outlets. As a result, its performance is directly affected by the world market, especially the US market. Alberta's forest industry is no exception; it is competing in the world market with traditional players like Sweden and Finland, and up and coming players in Asia and South America. What follows highlight some of the major issues and challenges that the industry is currently facing:

- **Softwood lumber disputes**—Canada and the US have been engaged in a trade war involving Canadian softwood lumber shipments to the US. On the surface, the dispute hinges on how Canadian provinces charge stumpage on Crown timber allocated to sawmills for lumber production. The US Coalition for Fair Lumber Imports, a group of sawmill operators located in southern US and the group that has routinely filed countervailing petitions to the US Department of Commerce, has been accusing that lumber production in Canada is subsidized through the low stumpage that the provincial governments charge. Although Canada has won all the legal battles, the US Government appears to be unable to handle the pressure from the Coalition by coming to terms with Canada for a long-term solution. This case is not likely to go away. What is certain though, is that Canadian lumber companies are forced to pay high countervailing duty for lumber shipments to the US for a long time to come.

- **Changing government policies**—In their continued effort to improve forest management and develop certain management policies that will lead to long peace with the US regarding the softwood lumber trade, many provinces, including Alberta, have been considering changing their respective forest management policies regarding tenure, timber allocation, and timber pricing. Indeed, BC has already implemented major changes along this line. It is not clear how these changes will affect the performance of the forest industry and this will no doubt create some short-term uncertainties that impinge on short to medium term industry growth.

- **Policy driven value-added development policies and initiatives**—Pursuing value-added development has been the goal of most provinces where the forest industry is a driver of economic growth. They have tried different ways to encourage development in the value-added wood industry, including some initiatives. A case in point is the policies that the BC Government introduced in the 1990s to encourage major primary producers to do more value-added production. These policies included the withdrawal of the annual allowable cut from licensees and setting aside more AAC for allocation to small business and value-added operators. For a while, it appeared that these policies did have impact as a number of value-added processing facilities were established independently and through joint ventures between majors and small business operators and aboriginal groups. Based on available information, it is difficult to say that this policy-driven approach has been successful in terms of fostering growth in the value-added wood product sector, as many of these newly established facilities have gone under. In this regard, the Alberta Government's approach is based more on moral suasion—simply put, it is searching for a workable policy framework.

- **Changing world market and Canada is losing its global player status**—The traditional supply-demand relationships for wood products are changing rapidly on a worldwide basis. For example, the US, Japan and Europe have traditionally been the three main and reliable markets for Canadian wood and paper products. However, this is no longer the case as Canada has lost its European market to the regional suppliers from Sweden, Finland, the former Eastern Bloc, Germany and Austria. Canadian suppliers also face challenges from these and other suppliers (e.g., New Zealand, Australia and Chile) in the US and Japan where they have been very dominant. Given the continued trade pressure from the US and the sluggish Japan economy, maintaining Canada's market share in these two regions would also be a challenge. In effect, Canada has lost global player status[1]. Canadian wood product suppliers have to find new markets and the latest target is China. However, the prospect in China is for industrial grade lumber rather than construction grade lumber.

- **Industry consolidation**—The Canadian forest industry, especially the industry in western Canada, is going through a period of rapid corporate consolidation currently. Just in 2004, two major forest companies—Weldwood of Canada and Riverside Forest Products—were taken over by two other BC based companies—West Fraser and Tolko and three of the four companies involved have operations in Alberta. In fact, a similar consolidation movement had already taken place in Scandinavia and the US through the 1990s. The underlying premise for this movement is that forest industry operators have to be "big" in order to compete in the international market. In the past, provincial governments like BC were trying to use their policy prerogatives to slow down this movement but it appears that they are less inclined to do so today. The upshot is whether there would be room for small and medium independent operators in this industry in the face of this consolidation trend. If so, what are the roles that they can play?

- **Industry outlook**—Typical of most commodity products, forest product prices are cyclical, with periodic peaks and troughs. Both lumber and OSB went through a period of low prices in the early 2000s but their prices headed upward dramatically in mid-2003 and peaked in the summer of 2004. In the near term, the market for both building products is somewhat uncertain, as it is not clear as to the direction the US economy is heading. In contrast, pulp and newsprint prices have been stable but generally on the low side since mid-1990s. Given the penetration of the Internet as a general public media, the short to medium outlook for pulp and newsprint is less than promising.

These trends all have direct impact on the forest industry in Alberta. The issues are magnitude, timing and outcome.

*****

It should also be pointed out, from the point of view of prioritization, it is suggested that the GAER Management Committee should not be concerned with the pulp and newsprint sectors in devising the value-added development initiative. Due to unique circumstances of Alberta (and western Canada too, in fact), there is very little the industry and government can do to move these sectors further along the value chain. The issue is mainly economic: it is deemed not economic to convert a pulp mill to make fine paper in Alberta at this point, for example. Similarly, there is not much one can do to add further value to newsprint. In light of this observation, the rest of our discussion focuses mainly on the solid wood products and the value-added opportunities associated with them.

[1] Canada ships 5 million $m^3$ of solid wood to non-North America market whose size is approximately 175 million $m^3$. To put this in context, the total global market for solid wood is approximately 300 million $m^3$ and the North American market is about 125 million $m^3$.

# III ASSESSING THE POTENTIAL FOR VALUE-ADDED DEVELOPMENT GAER—A SWOT ANALYSIS

An important question that the GAER Management Committee would like to address is whether there is a realistic potential for value-added wood product development in the region. To answer this question, a SWOT analysis is useful.

Exhibit 3 summarizes the results of such an analysis and the key points can be discussed below.

Among all economic regions in Alberta, GAER probably has the best potential for further value-added processing based on the available range of primary products. However, a range of other factors (weaknesses and threats) is at work to downplay this potential. Some of these factors can be overcome but others are out of the control of the Alberta Government and industry.

## Strengths

The region's forest industry produces the most diverse range of products in Alberta and many of these products can be put together to make value-added products. For example, MSR lumber and OSB can be used to make I-joists and a cut-to-size facility can be set up to take advantage of the availability of products such as OSB and medium density fibreboard.

Another potential strength is the proximity of the region to urban centres such as Edmonton, Grande Prairie and Calgary. Although the size of these market areas is small, they are a good starting point as they have more established finished product sectors like furniture and architectural millwork that have a strong appetite for semi-finished products. For example, many furniture manufacturers claim that they have to import birch and pine for inside parts for drawers and box springs, as they cannot find suppliers from Alberta to provide the right products. Similarly, some spindle makers have somewhat the feedback. Some have suggested that these opportunities can potentially be fulfilled by processing aspen and birch from Alberta and they are within reaching distances for potential suppliers from GAER.

**Weaknesses**

There are some weaknesses and some of them cannot be overcome in the near term. A case in point is the lack of diversity in tree species and the popular Alberta species is not normally used in value-added products. However, even this can be handled through research and development. Another weakness is the lack of skilled labour supply. The more challenging weakness is the commodity product mindset of the forest industry and the lack of entrepreneurial drive. This leads to another fundamental weakness—i.e., the majority of high quality wood is tied up in the production of commodity product, not to mention the fact that the volume of high quality wood is relatively small (compared to BC and the Pacific Northwest of the US) in the first place. This is not unique to the region, however; it is pan-Canadian phenomenon.

**Threats**

There are some short-term uncertainties that may have both positive and negative impact on the drive to foster value-added industry development. The softwood lumber dispute is still lingering. The roadblock is that, the US Government, under the political pressure from a small group of US lumber producers, refuses to play by the rules. In the midst of this difficult trade dispute, most provincial governments (including the Alberta Government) are considering new forest management and industry development policies that could have positive effect on value-added industry development.

**Opportunities**

There are value-added wood product opportunities for the region's forest products industry. These opportunities are indicated in Exhibit 3; they are relatively high level and need further investigation for prioritization and execution. The three that are worth noting are:

- Aspen processing—Forintek and the Forest Engineering Institute of Canada have shown through their demonstration projects that small scale processing of aspen for furniture stock, panelling and flooring is viable. This type of project works better when it is closely tied to large aspen users like OSB producers who can select high-grade aspen logs from their substantial volume of harvested aspen for value-added processing.

- Power plant expansion using wood residues—there are already two wood residue fired power plants in the region and the opportunities to expand these plant using the region's surplus wood residues exist.

- Panelboard expansion—The surplus wood waste can be a good of fibre supply for the existing MDF mill at Blue Ridge should it decide to expand. However, the economic feasibility of this project also needs to be determined in the context of market feasibility.

- Engineered wood products—As mentioned earlier, the availability of OSB and MSR lumber provides a useful basis for EWPs like I-joist and trusses.

- Millwork/cabinetry—Again, the availability of pine lumber stock and MDF is a plus for entrepreneurs to consider going into millwork/cabinetry businesses. Another positive factor is that the region is not far away from the Edmonton region with a demand base with 1 million people.

- Cut-to-size—A cut-to-size facility normally purchases raw materials like lumber, particleboard, MDF and OSB to make products such furniture parts, cabinet part, stair parts and blanks on a custom order basis. A facility within GAER may have some competitive advantages given the availability of input material like MDF and OSB and its proximity to Edmonton.

- Other miscellaneous opportunities—These could include:

    - Housing components.
    - Custom drying.
    - Log cabin sidings.
    - Manufactured housing.
    - Nine foot length finger-jointed studs.
    - One-inch board products.

- Edge glued panels.

In the final analysis, shifting the product focus from house framing to products that are required for finishing the interior of a house would allow the local industry to make strides along the value-added chain.

**Exhibit 3**
**SWOT analysis results**

| Strengths | Weaknesses |
| --- | --- |
| • Have the most diverse range of primary forest products among all economic regions.<br>• Pine is part of the forest base and is an appealing species for VA products.<br>• Located close to regional urban centres such as Edmonton.<br>• Established transportation systems<br>• Alberta Advantages. | • Commodity mind set.<br>• Limited availability of quality wood—most of which still tied up in production of commodity products.<br>• Small population base—absence of a large local market.<br>• Lack of species varieties.<br>• Absence of entrepreneurs.<br>• Uncertainties in government policies. |
| **Threats** | **Opportunities** |
| • Softwood lumber disputes—uncertainty in the primary industry.<br>• Competition from low labour cost regions—China, etc.<br>• Competition from alternative species (e.g., radiata pine) and other substitutes (reconstituted products).<br>• Lack of training capacity/skilled labour supply. | • Processing aspen and other species such as birch for value-added products.<br>• Millwork/cabinetry.<br>• Residue utilization—power generation and panelboard production.<br>• Engineered wood products.<br>• Cut-to-size products |

# IV THE CRITICAL SUCCESS FACTORS

In reviewing the development of the value-added wood products sector in other jurisdictions, we are able to crystallize several critical success factors that need to be put in place in order to foster value added industry growth. The factors germane to GAER are:

- **Common understanding among the key players in the region**—As is probably true at the provincial level, the forest industry players in the region do not necessarily share the same vision in terms of the direction the forest industry should be heading. GAER's earlier effort did not lead to the expected results because of the lack of such a vision. Thus, there is a need to look at establishing a common vision as the first step to obtain the buy-in of the concerned stakeholders.

- **Expanding the horizon beyond lumber remanufacturing**—A roadblock to achieving better understanding of the path to value-added development in the Alberta forest products industry is the dominance of the focus on lumber remanufacturing. Over the past two decades, because of the noise made by lumber remanufacturers that they need to have better access to lumber supply and timber allocation in order to grow, the issue of value-added development has been put into a very narrow focus—better access to lumber and timber supply would lead to quicker development in the value-added industry. While the concern of the lumber remanufacturers has validity, the whole issue of value-added wood product development has many more dimensions that need to be tackled. After all, lumber remanufacturing is only a small component of the value-added wood product sector.

- **Research and development**—Because the Alberta tree species is not commonly used in value-added wood product processing, there is a need to mount greater effort to undertake research and development to identify new product opportunities and to improve processing techniques to reduce processing cost. For example, aspen is not a common species used in joinery, millwork, cabinetry and furniture because it is difficult to process and its supply has been inconsistent. Research and development has to some extent helped overcome some of the problems but greater efforts are required to allow its penetration into these end uses. Similarly, greater research and development efforts would be required to allow lodgepole pine to penetrate the market space traditionally dominated by ponderosa pine.

  The required research and development effort can be centrally coordinated with regionally delivery.

- **Market development**—Again, because the Alberta species is not commonly used in value-added products, there is a need to find out what end uses the species can be made for and to identify where the markets are. Joint efforts by industry and government are needed to achieve a greater understanding of the potential markets for value-added wood products based on Alberta species. There are some existing market development programs funded by federal and provincial governments, and industry but they are more designed for products made of species that is already known in the market.

- **Consistent public policy guidance**—It is necessary for the Alberta Government to quickly fill the policy vacuum when it comes to the appropriate policy design for fostering value-added wood product development. Without this policy, it is difficult for the economic regions to implement its vision on this economic development initiative. There is also the issue of whether the policy should "guide", "pull" or "push". Another critical issue is whether the policy should focus on creating the right environment or providing business incentives to entice industry to act.

- **A new mindset—**The commodity product mindset is strong in the forest industry which happens to be located mostly in rural regions. This mindset needs to change to provide an environment that allows the value-added wood sector to grow.

At this point, few, if any, of these factors have been put in place to allow the development of the value-added wood products sector in rural areas like GAER. Nevertheless, GAER cannot act alone to try to have a good handle on these factors. The Management Committee should work closer with Alberta Economic Development and Alberta Sustainable Resource Development, as they are the agencies with the industry development mandate at the provincial level.

# V CONCLUSION AND RECOMMENDATIONS

It is our opinion that it is too early for GAER to give up value-added wood as an economic development initiative for the region at this juncture. The provincial policy regarding value-added wood product development is still in a flux and, when such a policy is appropriately developed and firmly put in place, there is the potential for this region to realize some development in value-added wood products. What is clear from this review is that this potential will take much longer time, better-coordinated effort and some luck in term of market timing to take place.

The following recommendations are relevant:

- The GAER Management Committee should work with the forest industry operators to build a common vision for value-added wood product industry development in the region.

- GAER should work with Alberta Sustainable Development and Alberta Economic Develop to develop policy initiatives that can be used to encourage value-added wood industry development. These initiatives should include, but are limited to, research and development support, market development support, possible financial incentives such as manufacturing tax credit and R&D tax credit.

- GAER should launch an exercise to understand the value-added wood sector in the Calgary and Edmonton regions and determine the extent to which some of these products can be supplied from the region (by existing or new providers). GAER has the location advantage to supply these markets.