PÖYRY

Report

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Menasha Utilities
Power Plant Viability Assessment

Final Report

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BACKGROUND AND OBJECTIVES

Menasha Utilities (MU) is a public power system located in Wisconsin. MU owns and operates the electric system and water supply in the City of Menasha. Until 2004, the Menasha power plant operated 200 to 300 hours per year to provide peak electric generation capacity under contract to Wisconsin Public Power Inc. (WPPI).

Following the termination of WPPI's contract, MU identified an opportunity to convert the electric plant into an industrial steam facility fueled by Appalachian coal and distribute the steam to neighboring paper mills.

At that time a first round of financing helped initiate the conversion project. Since then Appalachian coal prices have almost doubled, prompting MU's clients to ask for a lower cost coal. The lowest cost coal source was found to be Powder River Basin (PRB).

The conversion of the plant to PRB generated additional costs in terms of operational adjustment and compliance with environmental laws. In addition, the project experienced delays that resulted in further cost escalation. The increased cost of the project and the delays experienced in delivering the steam have adversely affected the financial position of the project.

The above circumstances have created an unfavorable environment for the issuing of further debt financing. Consequently, prospective long-term potential lenders need to understand and be satisfied with the project's technical feasibility, economic viability and credit worthiness.

In March 2006, MU and RBC Capital Markets asked Pöyry to formulate a fair and independent opinion on the viability of the above project. With this in mind, the overall objective of this report can be summarized as an independent evaluation of the project's economics and its ability to service project-related borrowing.

The findings of this report will also be used in the full disclosure documents targeted to rating companies and potential investors.

EXECUTIVE SUMMARY

- Based on Pöyry's financial analyses, Menasha Utilities will be unable to fully meet the general obligation component of its debt repayments by 2010. The key factors leading to this conclusion include:

    - A conversion cost much higher than anticipated that drove the burden of debt to unsustainable level

    - The recent increase in coal price that makes selling electricity to the MISO market less profitable

    - A lower volume of steam sales to customer base

- Menasha Utilities' steam revenues are mainly reliant on Sonoco's packaging manufacturing facility which consumes almost 90% of the total steam demand. The mill is regarded as a strategic asset in Sonoco's overall portfolio, and holds a strong competitive advantage in the coreboard business segment. Consequently, Pöyry views this facility as having a low risk of closure in the timeframe of relevance to the debt offering. Key observations on the Steam Supply Agreement (SSA) with Sonoco include:

    - The SSA with Sonoco provides a framework for the ongoing steam sales relationship between both companies. There remain some issues to be resolved, for example the overall steam generating capacity of the facility, the benchmark coal price and steam quality parameters.

    - Of greater concern is MU's unmitigated exposure in the event Sonoco elects to reduce its purchases of steam. The key decisions to change the volume purchased lie with Sonoco, with no penalties as described in the SSA. Likewise, Sonoco has no downside risk as the worst case is a return to generating its own steam via its gas-fired boiler. This latter option also imposes an effective price cap on the coal-fired steam.

- In terms of the remaining two customers, Alcan is a strong facility and was rated as a reliable customer. The facility has no alternative means to produce its own steam supplies. Thereby making it a more committed buyer. However it consumes only 6% of MU's steam production.

- Whiting is an equally small customer. The facility is niche producer of specialty colored paper focusing on small order run sizes. Whiting's profit margins are more sensitive than either of the other customers to changes in demand, pricing, or operational costs.

- The due diligence process uncovered numerous anomalies and concerns in the contracts MU management had negotiated with customers and suppliers. Some of these issues remain and should be addressed. These include steam price adjustment for 2007, the price of power generated by turbine #5 and the Revenue Sufficiency Guarantee charge on electric sales to the MISO market. In addition, the due diligence process highlighted errors and problems in the underlying business plan developed by MU management. These were significant and if uncorrected would have led to erroneous conclusions regarding the viability of the enterprise.

1 MARKET DUE DILIGENCE

The three identified steam customers and their approximate average steam demand are:

– Sonoco – U.S. Mills, Inc.	100,000 lb/h	88 %
– Alcan Packaging – Menasha	6,500 lb/h	6 %
– George A. Whiting Paper Company	6,500 lb/h	6 %
Total	113,000 lb/h	100 %

Due to the fact that Sonoco is by far the most important and critical steam customer of the three, the main emphasis of this market due diligence analysis is on assessing the future viability of Sonoco's operations. The other two steam clients are addressed in lesser detail as their importance is clearly more marginal.

1.1 Current Clients

1.1.1 Sonoco

1.1.1.1 Corporate background

Corporate overview

Sonoco is a global supplier of industrial and consumer packaging and packaging solutions. Sonoco is one of the world's largest packaging companies, and the world's leading producer of paperboard tubes and cores.

Sonoco's global sales totaled $3.5 billion in 2005. The company has approximately 17,600 employees in more than 300 locations worldwide. The company was established in 1899, and is headquartered in Hartsville, South Carolina. Sonoco is a publicly owned company listed in the New York Stock Exchange.

Sonoco is a profitable company, and yielded an approximately 8% return on net assets, and a 13% return on equity in 2004 and 2005. At the end of 2005, the debt-to-total capital ratio was approximately 36%.

Business areas

Prior to 2004, Sonoco reported its results in two segments: Industrial Packaging and Consumer Packaging. Historically, sales generated by businesses serving the industrial and consumer markets have represented approximately 55% and 45%, respectively. In 2005, the sales from businesses serving each segment were essentially equal. In the future, businesses serving the consumer markets are expected to grow faster, and the historical ratio of sales of the two segments will be reversed.

As of December 2005, Sonoco operations are organized under four business segments:

- Tubes and Cores / Paper
- Consumer Packaging
- Packaging Services
- All Other Sonoco

Tubes and Cores / Paper segment

The Tubes and Cores / Paper segment is the largest business segment. Its net sales of $1,482 million accounted for 42% of Sonoco's consolidated net sales in 2005. Sales growth was 7% since the previous year. The increase in sales was primarily due to the Sonoco-Alcore joint venture in Europe formed in 2004, where Sonoco holds a majority interest. Domestic sales decreased by approximately 1%, and represent 51% of the sales of the Tubes and Cores / Paper segment. The decrease in domestic sales was primarily due to decreased sales volume to the paper and textile industries.

Operating profit of the Tubes and Cores / Paper segment was $107 million, which accounted for 36% of Sonoco's operating profit in 2005, prior to corporate restructuring charges. The operating profit in the Tubes and Cores / Paper segment represents approximately 7% of net sales.

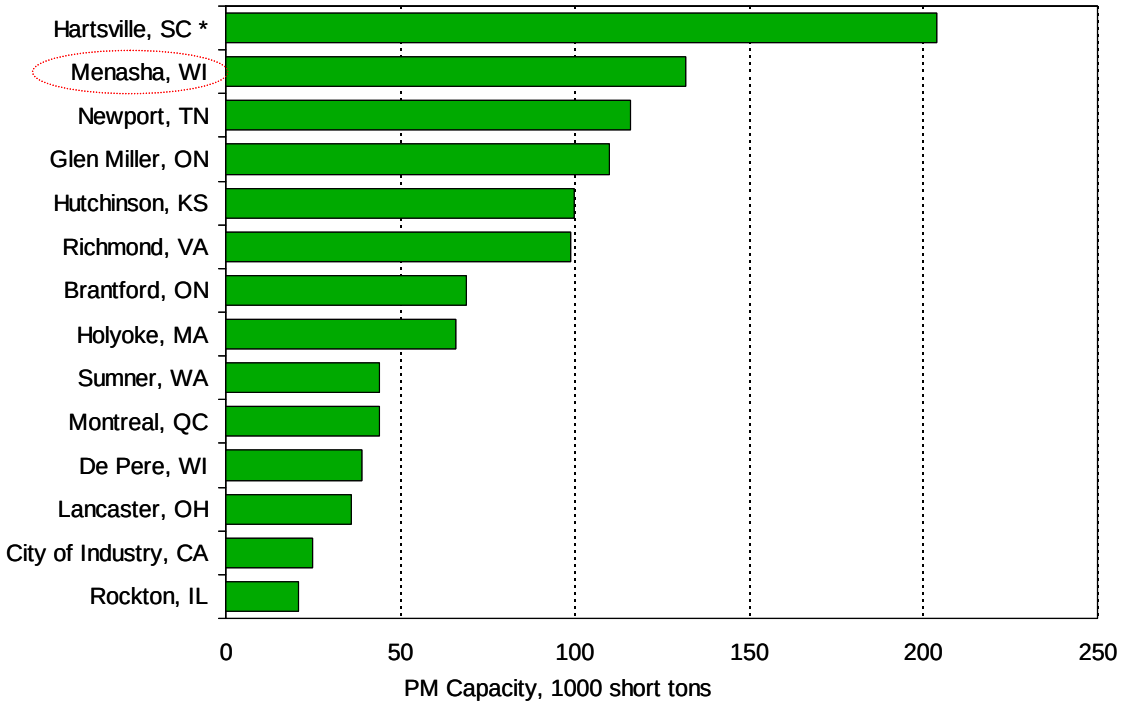
The main products of the Tubes and Cores / Paper segment include paperboard cores as well as paperboard, which is the primary raw material for the cores and other fiber-based packaging.

Sonoco is the world's largest producer of tubes and cores. It has 119 tube and core converting plants on five continents. The cores are used primarily by industrial clients, such as the paper, plastic film and textile industries, to wind their products on a paperboard core.

Sonoco seeks competitive advantage from its vertical integration to paperboard production. Sonoco has a total of 26 paper mills with 37 paper machines in 11 countries. In North America, Sonoco has 14 paper mills with 24 paper machines. The combined capacity of Sonoco's North American paper machines is approximately 1.3 million t/a of paperboard, including approximately 700,000 t/a of coreboard.

Figure 1

Sonoco's capacity by mill



* Note: PM 10 at mill this site has been excluded because it fully dedicated to producing medium (est. 190,000 tons)

Corporate restructuring

Sonoco's corporate goals include improving the company's overall performance including reducing the number of underperforming plants that adversely impact profit margins.

In 2003, a general plan to improve the company's overall cost structure was announced, including eliminating excess plant capacity. In accordance to the plan, six plants in the Tubes and Cores / Paper segment were closed in 2003, followed by ten plants in 2004, and eleven plants in 2005. In 2005, an in-depth review of the global Tubes and Cores / Paper operations was initiated. This review is expected to be completed by mid-2006, and depending on the conclusions reached, a further restructuring of operations may result.

According to the Menasha mill management, the Menasha mill belongs to selected strategic assets of Sonoco, and is not subject to restructuring or closure plans.

Growth strategy

In addition to aggressively managing its global plant structure, and as needed, altering it to ensure a low-cost position, Sonoco has top-line growth objectives. Sales growth is driven by three main initiatives: additional acquisitions, geographical expansion, and providing total packaging solutions.

Additional acquisitions will most likely be in the flexible packaging and rigid plastics operations, though not necessarily exclusively. Also, further joint ventures are viewed as potential growth vehicles.

Continued geographic expansion into new market areas is another important growth tool, especially for the more mature businesses. Recent or planned expansion initiatives include large new market areas such as Brazil, China, India, Turkey and Poland.

Sonoco wants to position itself increasingly as a total packaging solution provider for consumer product companies, offering a full range of packaging supply chain products and services. New product development is a major component in providing total packaging solutions. Sales of new products, i.e. those that have been commercial for two years or less, have emerged since 2000 to about $75 million in 2005. The goal is to grow this business to the $100 million to $125 million range over the next few years.

In summary, Sonoco expects the Consumer Packaging and Packaging Services segments to provide the foundation for continued growth. The role of the Tubes and Cores / Paper segment is to provide strong cash flow from its operations over the next several years.

1.1.1.2 Menasha mill operations

Overview

Sonoco's Menasha mill is located at 69 Washington Street, Menasha, approximately 600 yards southeast of Menasha Utilities' power plant.

Sonoco's mill produces coreboard on two board machines with a combined annual production of approximately 140,000 tons. Production is based on 100% recycled fiber.

Board machine No 1 produces coreboard mainly for heavy-wall industrial cores, used e.g. by the paper industry. Its production is sold in narrow, typically 4 to 6 inches wide rolls, to core manufacturing plants. Sonoco operates one of its largest industrial core manufacturing plants (former Hayes Manufacturing Group) in Neenah, Wisconsin. Essentially all of board machine No 1's production is sold to Sonoco's own core manufacturing plants.

Board machine No 2 produces coreboard mainly for consumer tissue rolls and other consumer packaging purposes. Its production is sold in narrow, down to 3 inches wide, rolls to external customers, such as tissue paper converting plants.

The historical roots of the Menasha mill date back to a factory making wooden pails and tubs. The first paper machines of the Menasha mill were installed in 1888 and 1892. These two old paper machines were shut down in the early-1980s.

The current board machine No 1 was originally commissioned in 1917. As a result of several upgrades during the machine's history, its capacity has been expanded to approximately 62,000 t/a.

Board machine No 2 was built in 1989, partially utilizing second-hand components. A series of technical improvements have been carried out since commissioning the machine. Its current capacity is approximately 78,000 t/a.

Acquisition by Sonoco

The Menasha mill was part of U.S. Paper Mills Corporation, which Sonoco acquired in 2001. The acquired U.S. Paper Mills operations included the paperboard mill in Menasha with two paper machines, a paperboard mill in De Pere, Wisconsin, with one paper machine, and three core and tube converting plants located in Wisconsin, Illinois and Minnesota.

U.S. Paper Mills' main businesses were production of lightweight paperboard for conversion into cores, tubes and composite cans, and production of paperboard cores for consumer tissue rolls. U.S. Paper Mills was the North American market leader in the production of lightweight coreboard.

The acquisition was carried out as an all-cash purchase. The purchase price was not disclosed. The annual turnover of U.S. Paper Mills was $70 million in 2000, and the acquisition price was estimated to be of the same order-of-magnitude.

In 2001, Sonoco also acquired Hayes Manufacturing Group, Inc., a manufacturer of paperboard cores, tubes and composite cans. The acquired Hayes operations included two core and tube converting plants in Neenah and Greenville, Wisconsin. The annual sales of Hayes were $56 million in 2000. Hayes consumes over 50,000 t/a of paperboard. At the time of the acquisition, approximately half of their paperboard was supplied by U.S. Paper Mills. Since the acquisition, most of the remaining tonnage has also been sourced from Sonoco's own paperboard mills.

Main equipment

Two paperboard machines comprise the key production assets of the Menasha mill.

Board machine No 1 (BM 1) is a cylinder former machine with nine forming cylinders. A uniform fiber furnish is used in all board layers. BM 1 annual production is 62,000 t/a of mainly heavy-duty coreboard for industrial cores used e.g. by the paper industry. The average daily production is 175 t/d based on the machine's grade mix, but the machine has a maximum capacity of 270 t/d for heavy basis weight board. BM 1 has a trim width of 126 inches, and an operating speed of 650 fpm.

BM 1 is an old machine originally commissioned in 1917, although hardly any original components of the machine are in use any more. The oldest sections of the machine line are estimated to originate from the 1930s. All forming cylinders are equipped with pressurized headboxes. Two new cylinder formers equipped with profile control were installed in 2000. The press section consists of five old straight-through presses. BM 1 dryer section has 72 cylinders with a 4 ft diameter. The dryer steam pressure is 56 psi.

BM 1 is followed by a slitter winder slitting paperboard in typically 4 to 6-inch wide customer rolls. The slitter winder originates from the 1960s, but was rebuilt in 1999.

Board machine No 2 (BM 2) is a single-fourdrinier machine. Its annual production is 78,000 t/a of mainly lightweight coreboard used for consumer tissue roll cores, composite cans and other consumer packaging end-uses. The average daily production is 220 t/d. BM 2 has a trim width of 118 inches, and an operating speed of 1300 fpm.

BM 2 was built in 1989 including some second-hand components. Since commissioning the machine, a series of technical improvements have been carried out, including rebuilding the press section in 1991, and installing a new headbox in 1995, and a top-former unit in 1998. The press is a 2-nip press with a linear load of 1000 pli in the second nip. BM 2 dryer section has 30 cylinders with a 5 ft diameter. The dryer steam pressure used is relatively high at 160 psi.

BM 2 is followed by a new slitter winder installed in 2000, which can slit paperboard down to 3 inch wide customer rolls.

Table 1
Menasha board machine technical data

	BM 1	**BM 2**
Start-up	1917	1989
Wire width	145" = 3.68 m	138" = 3.50 m
Trim width	126" = 3.20 m	118" = 3.00 m
Max. operating speed	650 fpm = 200 m/min	1300 fpm = 400 m/min
Daily production	175 t/d (avg) / 270 t/d (max)	220 t/d (avg)
Annual production	62,000 t/a	78,000 t/a
Former	(9) Cylinder formers with pressurized headboxes, (2) with profile control	(1) Fourdrinier (1989) (1) Headbox (Paptex 1995) (1) Top-former (GL&V 1998)
Press section	(5) Straight-through presses	2-nip press (reb. 1991) 2nd nip 1000 pli = 175kN/m
Dryer section	(72) Dryer cylinders Ø 4 ft 56 psi = 3.9 bar	(28) Dryer cylinders Ø 5 ft 160 psi = 11.0 bar Wax application unit (2) Dryer cylinders Ø 5 ft
Machine calendar	5-roll + 7-roll calender stacks with water box for sizing	6-roll calender stack
Machine reel	Pope reel	Pope reel
Slitter winder	2-drum slitter winder (Jagenberg 1960s, reb. 1999)	2-drum slitter winder (A&F 2000)

Capital investments

Since the late-1980s until the 2001 acquisition by Sonoco, U.S. Paper Mills had made the following major investments in the Menasha mill:

1989	Board machine No 2
1994	Gas-fired steam boiler
1998	Top-former on BM 2
2000	New slitter winder for BM 2

The combined value of the investments in the period from 1989 to 2000 was approximately $50 million.

Sonoco acquired U.S. Paper Mills in 2001.

Since the acquisition, only minor improvement investments have been carried out. In early-2006, an upgrade in the stock preparation area was completed for a cost of $3.5 million.

In the future, the Menasha mill is estimated to have an annual capital budget of approximately $2 million for replacement and improvement investments. Potential future investment projects include:

- Dryer section improvements on BM 1
- Fourdrinier part improvements on BM 2
- Capacity upgrade on BM 2
- Packaging automation

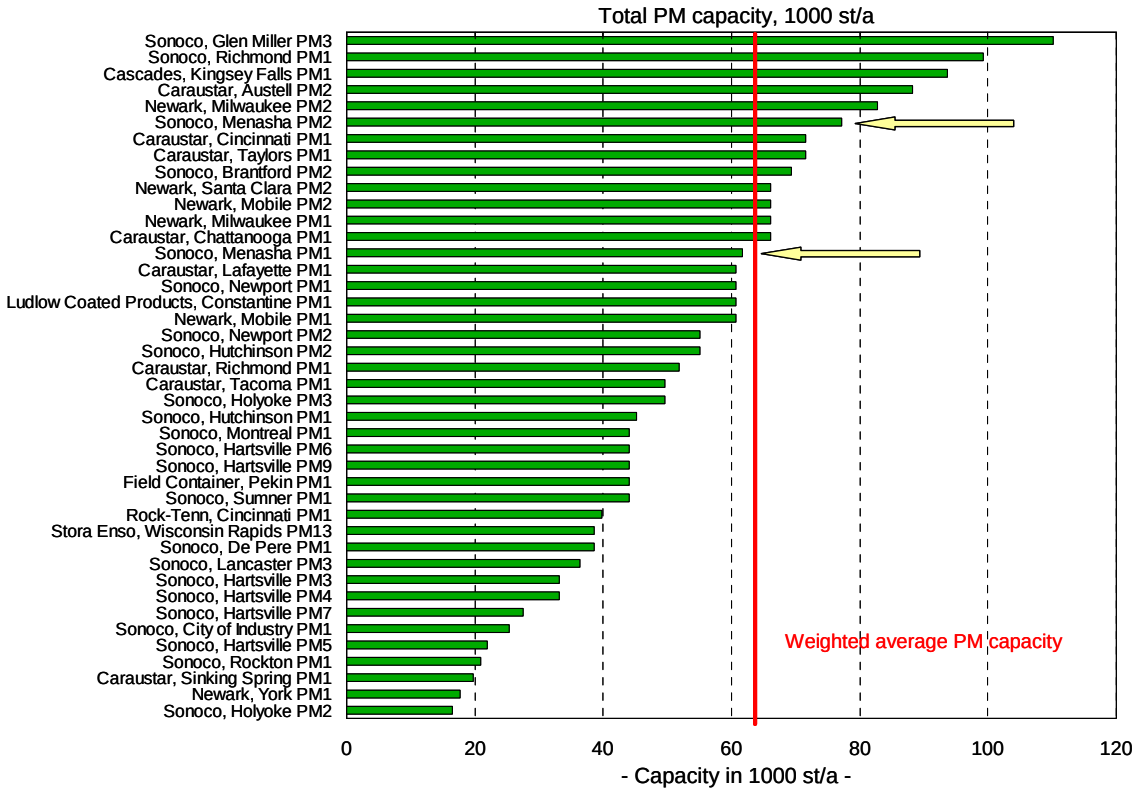
Asset quality

Capacity

The largest coreboard machines in North America have a capacity on the order of 100,000 t/a. The average capacity of the machines is approximately 60,000 t/a. Approximately a dozen of coreboard machines with a capacity in the range of 20,000 t/a to 40,000 t/a are in operation in North America.

Figure 2

Coreboard producers in North America



Sonoco's Menasha BM 2 (PM2) with a capacity of 78,000 t/a is a higher-than-average capacity machine, and ranks as the 6th largest coreboard machine in North America by capacity.

Menasha BM 1 (PM1) with a capacity of 62,000 t/a is an average sized coreboard machine in North America.

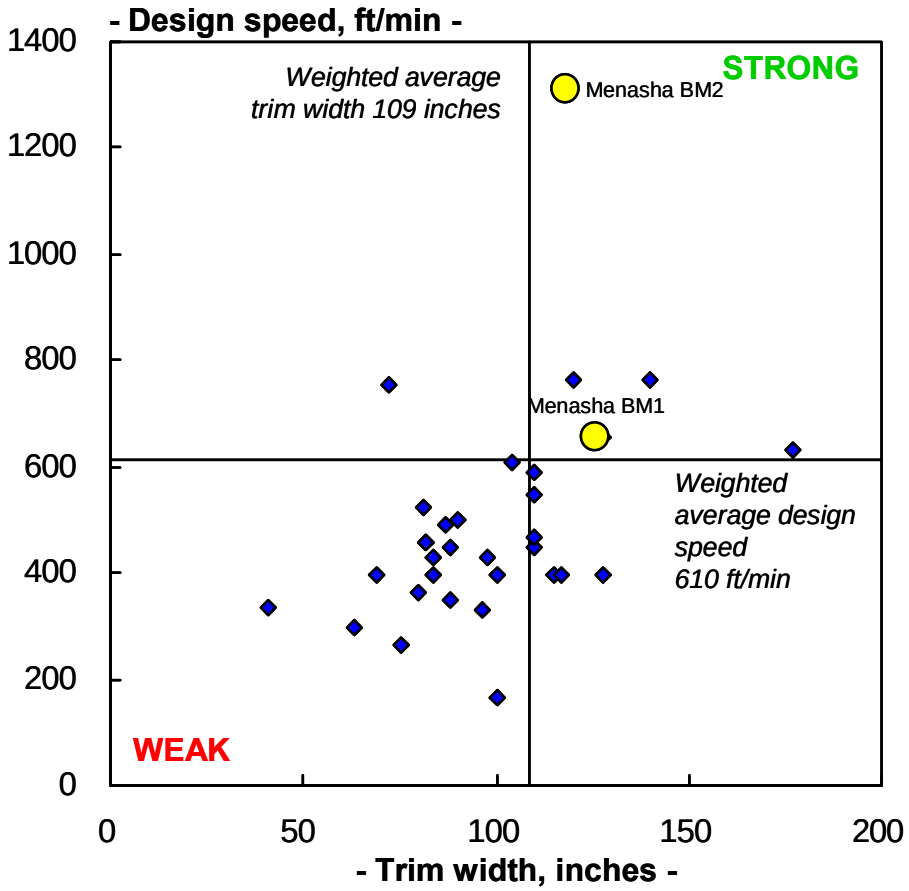
Trim width

The majority of the North American coreboard machines have their trim width in the range from 80 to 140 inches, the average width being slightly over 100 inches. Only one machine at Sonoco's Trenton mill, Ontario, has a clearly wider trim width at 177 inches. This machine produces partially coreboard, partially recycled linerboard.

Menasha BM 1 and BM 2 with trim widths of 126 inches and 118 inches are positioned among the wider than average machines in the industry in North America.

Figure 3

Industry structure – coreboard producers in North America



Operating speed

Maximum operating speed for coreboard machines applying cylinder forming technology is typically under 800 fpm. Majority of the older-generation coreboard machines have operating speeds under 600 fpm.

Menasha BM 1 with a maximum operating speed of 650 fpm positions well among the cylinder former machines.

Menasha BM 2 is in a league of its own with its maximum operating speed of 1300 fpm. The higher operating speed is explained by the machine's fourdrinier forming section. The high operating speed offers a clear competitive advantage in lightweight coreboard production, which Menasha BM 2 specializes in.

Process inputs and manufacturing cost structure

The main process inputs and their approximate share of the total cash manufacturing costs for coreboard are shown below. The presented cost structure refers to that of a hypothetical producer with total cash manufacturing costs of $300 per ton, as estimated by Pöyry Consulting.

per ton		
– Fiber	33 %	$100
– Chemicals	3 %	$ 10
– Fuel for dryer steam	20 %	$ 60
– Electric power	10 %	$ 30
– Labor	17 %	$ 50
– Operating and packaging materials	3 %	$ 10
– Maintenance materials	5 %	$ 15
– Mill administration and overhead	8 %	$ 25
Total	100 %	$300

Fiber raw material for papermaking represents the biggest individual cost item accounting for an order of one third of the total cash manufacturing costs. Fiber furnish is based on 100% recycled fiber.

The quality and cost of the raw material mix used depends on the quality level of coreboard produced. The main raw material of coreboard for heavy-wall industrial cores is old corrugated containers (OCC). For premium strength grades, higher-priced double-lined kraft (DLK) clippings, i.e. virgin kraft pulp-containing corrugated container converting waste, is also used. For lightweight coreboard used for consumer tissue roll cores, lower-cost mixed waste paper is the primary raw material. Naturally, prices for coreboard of different quality levels vary accordingly.

In general, the raw material costs for competing producers are relatively uniform. Potential cost advantages may result from participation in recycled paper collection, or logistic costs due to a favorable location close to populated areas. Sonoco has its own recycled paper collection organization serving manufacturers, retail outlets as well as municipalities. The differences in raw material costs between competing coreboard mills, however, are estimated to be rather marginal.

Recycled paper pricing can typically be volatile over time depending mainly on the short-term balance of demand and supply. As an example, the OCC price declined 30-35% from the first quarter to the last quarter in 2005 as a result of high mill stock, strong generation, and soft demand. Coreboard producers can be, at least partially, protected against the recycled fiber price fluctuation, as the raw material prices may be factored in the coreboard prices.

Chemicals represent a relatively marginal cost element in coreboard production. The main chemicals used are various sizing agents. Premium-quality high-strength coreboard requires more sizing.

Energy costs are the second biggest cost category, and account for close to 30% of coreboard cash manufacturing costs. Energy costs include boiler fuel to generate dryer steam, and purchased electric power. Energy prices, especially for natural gas, have escalated significantly during the past few years.

Boiler fuel costs alone can account for about 20% of cash manufacturing costs, assuming natural gas-fired steam generation. At mills with coal-fired boilers, the fuel costs can be substantially lower. However, most coreboard mills in the US use natural gas as boiler fuel. In addition to boiler fuel cost, the drying steam consumption can have a significant impact on manufacturing costs. The drying steam consumption may differ depending on the modernity of the paper machine's press and drying section and the overall energy efficiency of the processes. In modern press sections, a higher after-press dryness is reached, resulting in reduced drying energy needs in the dryer section. The steam economy and heat recovery of modern dryer sections is enhanced compared to older equipment, resulting in lower steam consumption per amount of water evaporated. Most of the coreboard machines in North America represent older-generation technology, and cannot be considered as particularly energy-efficient.

Electric power costs can account for up to 10% of cash manufacturing costs, assuming all purchased electricity. Few coreboard mills have their own on-site power generation, in which case electric power costs are reduced. Purchased electric power prices may vary depending on the mill location and purchase agreements. Differences in electric power consumption between competing coreboard mills are estimated to be relatively marginal, as all mills apply comparable main production processes. In general, larger mills and machines enjoy a small advantage against smaller ones in electric power consumption on a per ton of output basis.

Mill labor costs, including operating and maintenance labor, are the third biggest expense after fiber and energy, accounting for approximately 15% to 20% of cash manufacturing costs. In labor costs, typically, economies-of-scale prevail. In case of larger-scale mills and machines, the additional labor requirement is often marginal compared to the increase in production, resulting in lower costs per ton of output.

Operating materials consist of wires, felts and other consumables needed in the operations. Packaging materials include cores, pallets and plastic wrapping material. Together these material costs represent only a small percentage of total costs for coreboard.

Maintenance materials and services represent about 5% of the cash manufacturing costs. In addition to maintenance costs, funds in the same order-of-magnitude are typically used in replacement investments, which are capitalized on the balance sheet.

Mill administrative personnel and other administrative and overhead costs normally represent less than 10% of the total cash manufacturing costs. For administrative and overhead costs, economies-of-scale are typical, benefiting the larger production units on a per ton of output basis.

On top of the cash manufacturing costs, the total cash costs of a mill include distribution costs. In the US market, paper products are typically priced as delivered, and thus the

supplier mills are in charge of the distribution costs. As a result, mills located close to their customer base enjoy a cost advantage.

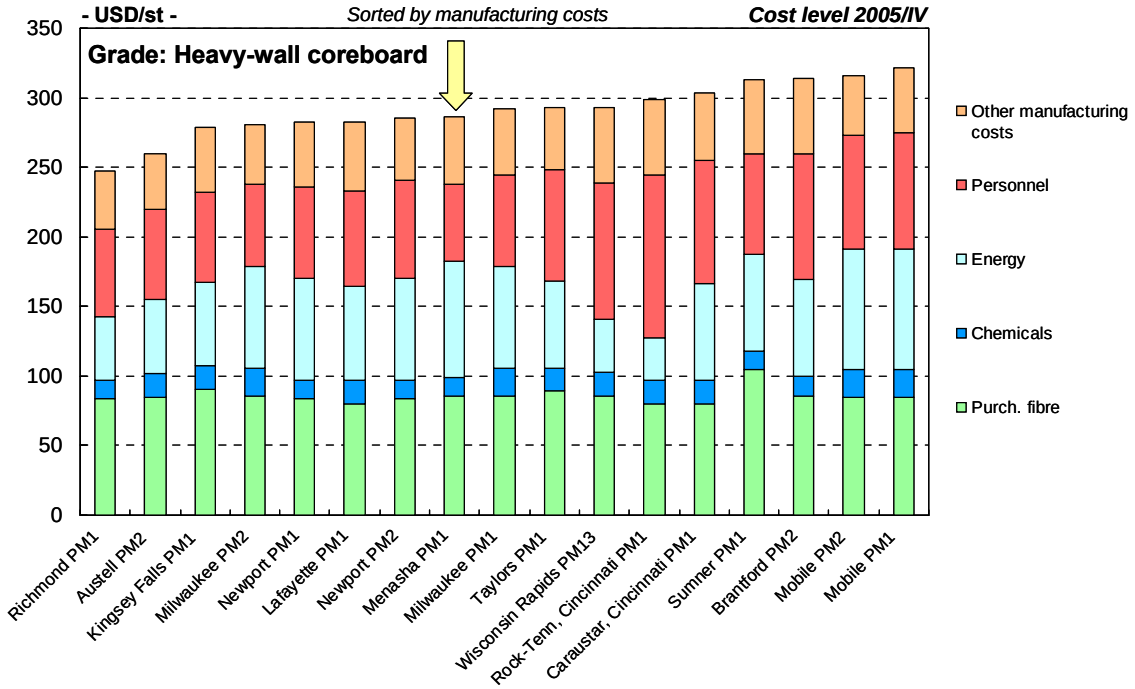
In addition to cash costs, the total operating costs include non-cash items, such as depreciation and amortization of long-term investments, which are written off over a period of several fiscal years. Annual depreciation charges for recent investments are typically higher than those at older mills. Most of North American coreboard machines are old and probably close to fully depreciated. Most of their depreciation charges are due to rebuild and replacement investments, rather than the original machine installation.

Cost-competitiveness

The two main factors largely explaining the cost-competitive position of a coreboard machine are machine and mill scale, and the energy concept of the mill. Large-capacity mills and machines enjoy lower fixed costs per ton of output than their smaller competitors. Most of the North American coreboard mills use natural gas as boiler fuel, and purchase all of their electric power. Those mills with coal-fired boilers or on-site electric power generation can achieve savings in energy costs.

Figure 4

Cost details – analyzed NA producers
Menasha – current position

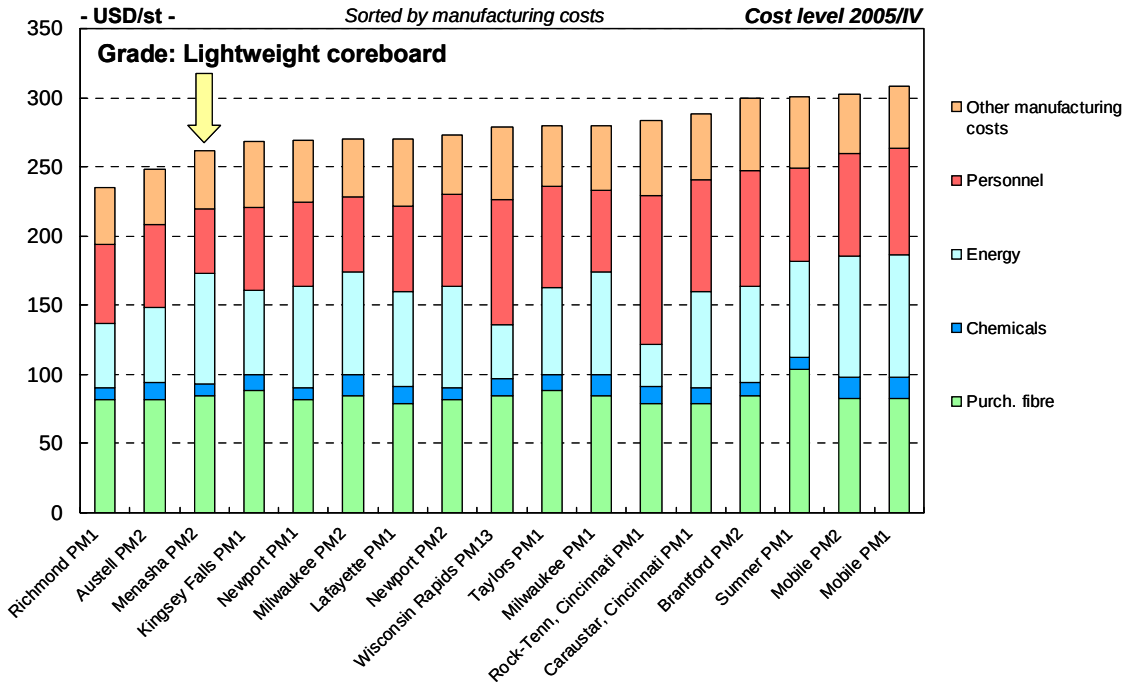


Menasha BM 1 (PM 1) is an average-size machine, and its cash manufacturing costs are estimated to be close to the industry average. BM 1 enjoys slightly lower than average fixed costs per ton of production, due to the relatively large total capacity of the two-machine mill, as well as efficient mill manning. The current energy costs are on the high side among

its competitors. The total cash manufacturing costs for many of the competing machines are estimated to be comparable to those of Menasha BM 1. If Sonoco can lower its energy costs through steam supply outsourcing, Menasha BM 1 could have a cost advantage against a number of competitor machines.

Figure 5

Cost details – analyzed NA producers
Menasha – current position



Menasha BM 2 (PM 2) is estimated to be a relatively low-cost producer of lightweight coreboard, based on cash manufacturing costs. The competitive cost position is mainly explained by the machine's higher-than-average capacity supported by its high operating speed. The current energy costs are on the high side, similar to those for BM 1. As BM 2 was commissioned in 1989, and further rebuilt in the 1990s, its depreciation charges could be assumed to be somewhat higher than most of the competitor machines, which are considerably older.

Environmental compliance

Being a recycled fiber-based paperboard mill, the environmental load from the Menasha mill operations can be considered to be rather limited.

Fiber raw material for papermaking is all recycled paper. No bleaching or other potentially harmful chemicals are used in the production process.

Mill effluent is treated in a primary clarifier on site to reduce the solid material content of the effluent, before sending the effluent to the municipal waste water treatment plant. The effluent volume totals 180,000 Gph (16,000 m^3/d).

Air emissions originate mainly from the boiler stack. 100% natural gas is used as boiler fuel, minimizing stack emissions. After outsourcing the steam supply from Menasha Utilities, the boiler stack emissions from the mill will cease.

Solid waste originates mainly from the screening and cleaning of recycled fiber raw material, and primary effluent clarification. This solid waste is landfilled. The solid waste volume amounts to 30 tons per day.

According to mill management, the mill is operating within the limits of all permits and regulations, and no potential obstacles for environmental compliance are foreseen in the future.

There is a special environmental issue related to the PCB contamination of the Fox River.

The bottom sediments of the Fox River are contaminated by PCB. The main source of the PCB contamination was carbonless copy paper production at Appleton Coated Papers for NCR Corporation. In the special coating of carbonless copy paper, an emulsion of PCB-containing microcapsules encapsulating the dye materials was used. Commercial use of PCB-containing coating materials continued from 1954 until the early-1970s, when PCB-containing coating materials were replaced with new type of chemicals.

In addition to the carbonless copy paper production, the recycling of this paper contributed to the PCB contamination of the Fox River. The Menasha mill, under the previous ownership of U.S. Paper Mills Corporation was recycling some of the trimmings of the carbonless copy paper made by Appleton Coated Papers, as well as waste paper containing carbonless copy paper. The use of carbonless copy paper as recycled fiber raw material resulted in contaminating U.S. Paper Mills' wastewater discharge to the Fox River by PCB. However, U.S. Paper Mills is considered a relatively small source of PCB to the Fox River. Wisconsin Department of Natural Resources has estimated that U.S. Paper Mills has released roughly 1% of the total PCBs contaminating the river.

In 2005, the US Environmental Protection Agency (EPA) notified Sonoco U.S. Mills, Inc. that Sonoco U.S. Mills would be held jointly responsible to undertake a program to remove and dispose of certain PCB-contaminated sediments of Fox River. Sonoco U.S. Mills has agreed to fund 50% of the costs of the remediation, which is currently estimated to be in the range of $25 million to $30 million. Project implementation is planned to begin shortly, with most of the costs expected to be incurred in 2007.

In the fiscal year 2005, Sonoco has accrued an environmental reserve of $12.5 million as an estimate of the portion of the costs the company expects to fund under the current agreement. The actual costs of the clean-up will be dependent upon many factors, and it is possible the costs could be higher than the current estimated project costs.

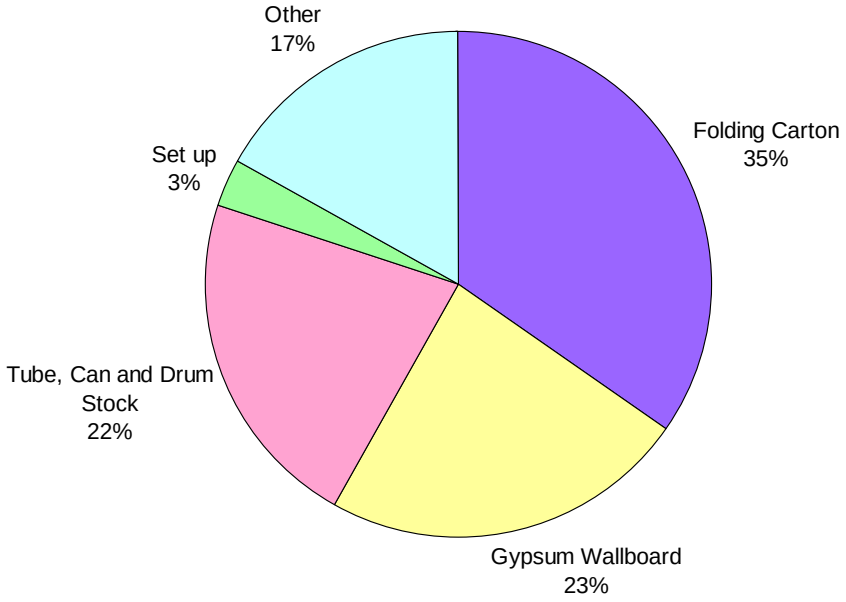
1.1.1.3 Market assessment

Recycled paperboard's furnish is predominately recycled fiber, but may have some virgin fiber content. Recycled paperboard is used in folding cartons, set up boxes, gypsum wallboard facing, and tube, can and drum stock.

Boxes are the largest end use for recycled paperboard. Gypsum wallboard facing is the paper liner covering gypsum core in wallboards. Tube, can, and drum stock is converted into different wound paperboard containers with different strength requirements based on end use.

Figure 6

Structure of the recycled paperboard market



Recycled Paperboard 7.0 million st

The overall recycled paperboard market is declining on average. Year 2004 saw improvement due to better economic conditions. Tube & Core Stock (TCS) represent 22% of the recycled paperboard market, excluding recycled containerboard.

Driving forces

Tube & core stock is used for industrial and consumer products. Industrial uses account for 70% of the tube, can, and core demand. Key industries using converted TCS are paper, plastic film, textile, carpets, wire and cable industries. A key driver of the industrial segment of this market is industrial production of these industries. Shifts of manufacturing to other regions of the world have affected demand for TCS in the industrial segment.

Consumer products account for the remaining portion of the TCS demand. Composite cans, used for food products, are the largest segment of this market. This segment of the market

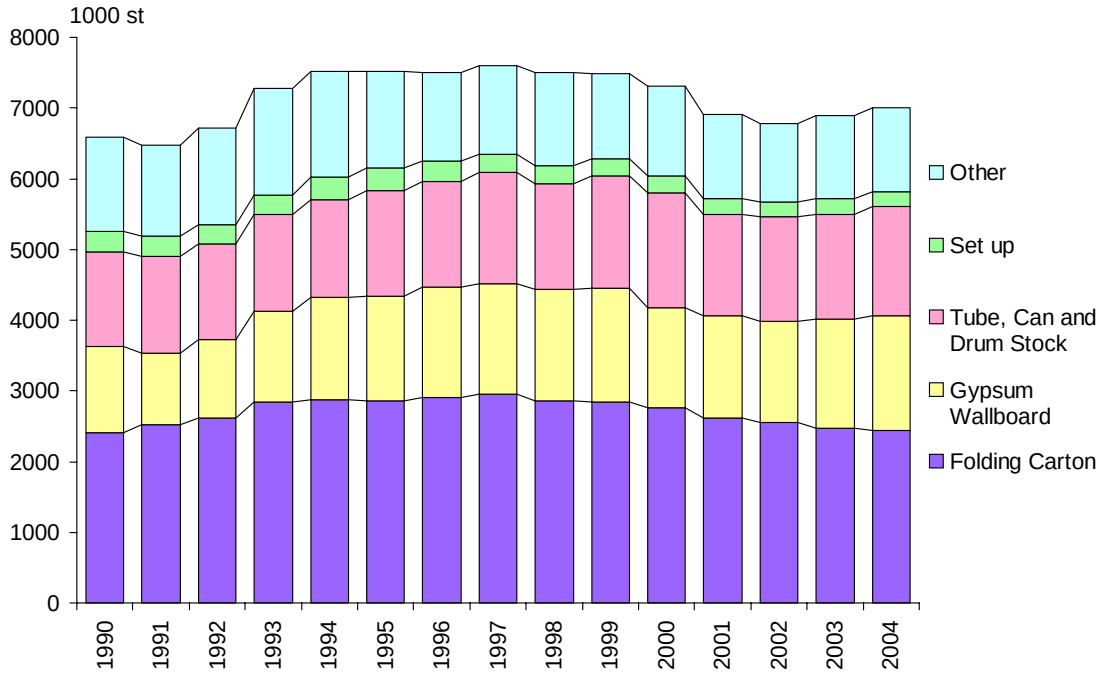
has faced major substitution from plastic containers. One example of an end use facing substitution is frozen concentrate juice. However, composite cans have gained share in packaging of snack food, powered drinks, frozen foods, and non-food containers.

Development of demand

Recycled paperboard has been declining on average. There are four main segments of the recycled paperboard market (not including containerboard): folding cartons, set up boxes, gypsum wallboard facing, and tube, can and drum stock.

Figure 7

Structure of the recycled paperboard market



Boxes, both folding cartons and set up boxes, are the largest end use of recycled paperboard. This end use has been declining since the mid-1990's. Carton board boxes have faced competition from flexible packaging, especially for food and retail end uses. The shifting of manufacturing to off-shore locations has also contributed to the demand decline of this end use segment.

Gypsum wallboard facing demand is increasing. The growth of this end use segment is dependent on construction and remodeling growth for commercial and residential markets. Growth is supported by a strong economic environment.

Tube, can and drum stock demand has been relatively flat. Within this segment there are growing as well as declining end uses which have offset each other. TCS market is driven by both industrial and consumer markets.

Key end use markets

TCS is a mature market facing competition from plastics and other packaging materials. Overall growth rate in the future will be flat to declining.

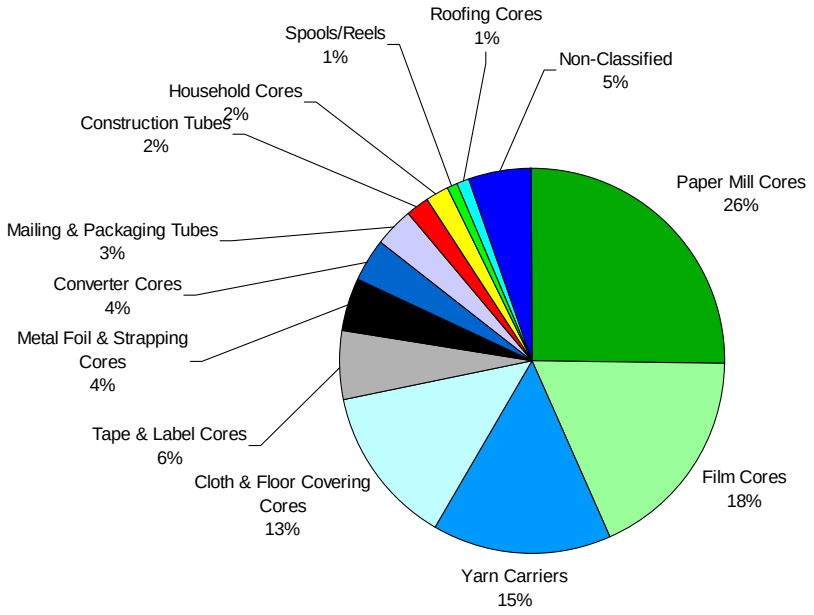
There are three types of TCS products: tube & core, drum, and composite can. Tube & core represents the largest segment of the market and are both industrial and consumer focused. Drums are used mainly for industrial packaging and are a relatively small portion of the market. Composite cans are typically used to package consumer products.

Key industrial products using TCS are textile, carpets, paper, plastic film, wire and cable (70% of tube, can, and core market). There has been a shift of manufacturing to other regions of the world, which has reduced the demand for TCS.

Consumer food is the main application for composite cans (30% of market). Composite cans have faced major substitution from plastic containers. Almost all motor oil is now in plastic containers. Frozen concentrate juice has made a major shift to plastic containers. However, composite cans have gained share in packaging of snack food, powdered drinks, frozen foods, and nonfood containers.

Figure 8

Tube and core sales by end use



The largest single end use for paper cores is the paper industry (26% of sales). This is mainly an industrial end use and does not include cores for tissue and other household products, which is a much smaller (2% of sales) and different segment. Demand for paper mill cores, which is a maturing market in the United States, is driven by paper and board production. These are heavyweight cores that are used for transporting large parent rolls of

paper and board. Demand for lighter weight cores for consumer/commercial tissue use is increasing based on relatively strong growth of tissue products in the United States.

The Sonoco Menasha, WI mill participates in both the industrial and lighter weight tissue end uses. Sonoco is a leader in each of these markets. The state of Wisconsin's paper/board and tissue production are key local industries, which will support continued operation of Sonoco's mill.

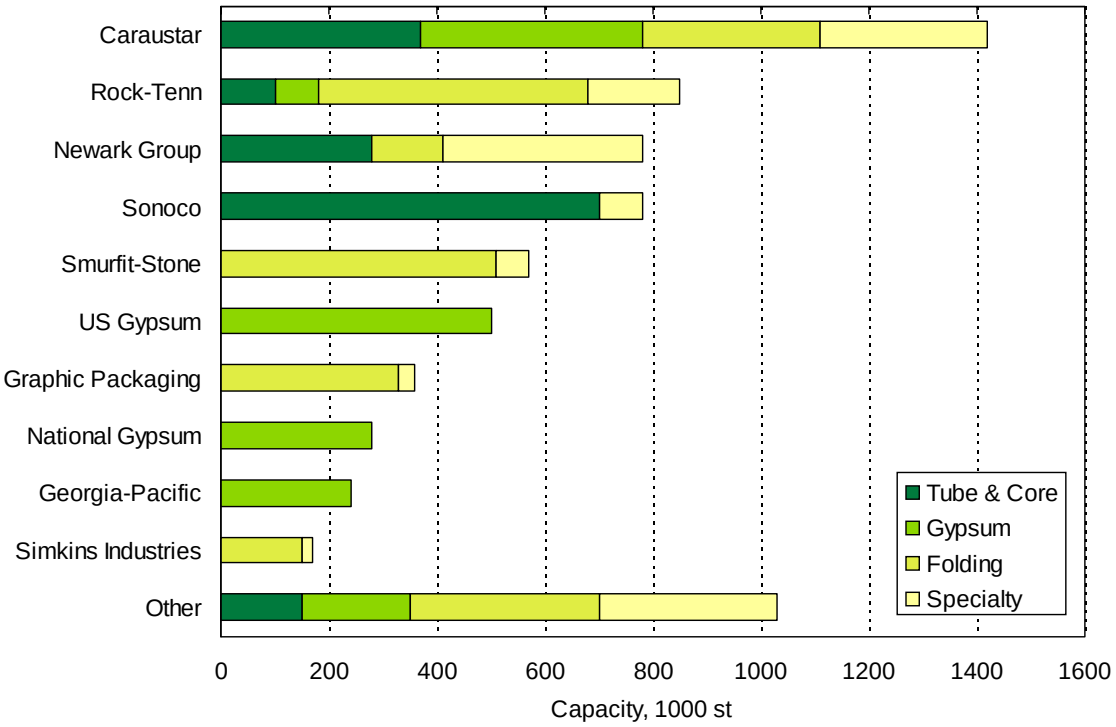
Other key industries that use cores are film (18%), yarn (15%), and textiles (13%). Film demand for cores is increasing due to increasing demand for plastic films, supported by the growth in demand for film-based flexible packaging.

Competitive environment

Tube & core production is concentrated on the East Coast, especially in the Southeastern US. Sonoco has mills located across the US and Canada. Sonoco is a top recycled boxboard producer representing 11% of capacity. Sonoco's key product is tube & core. Top five companies represent 63% of US recycled boxboard.

Figure 9

Top producers of recycled boxboard

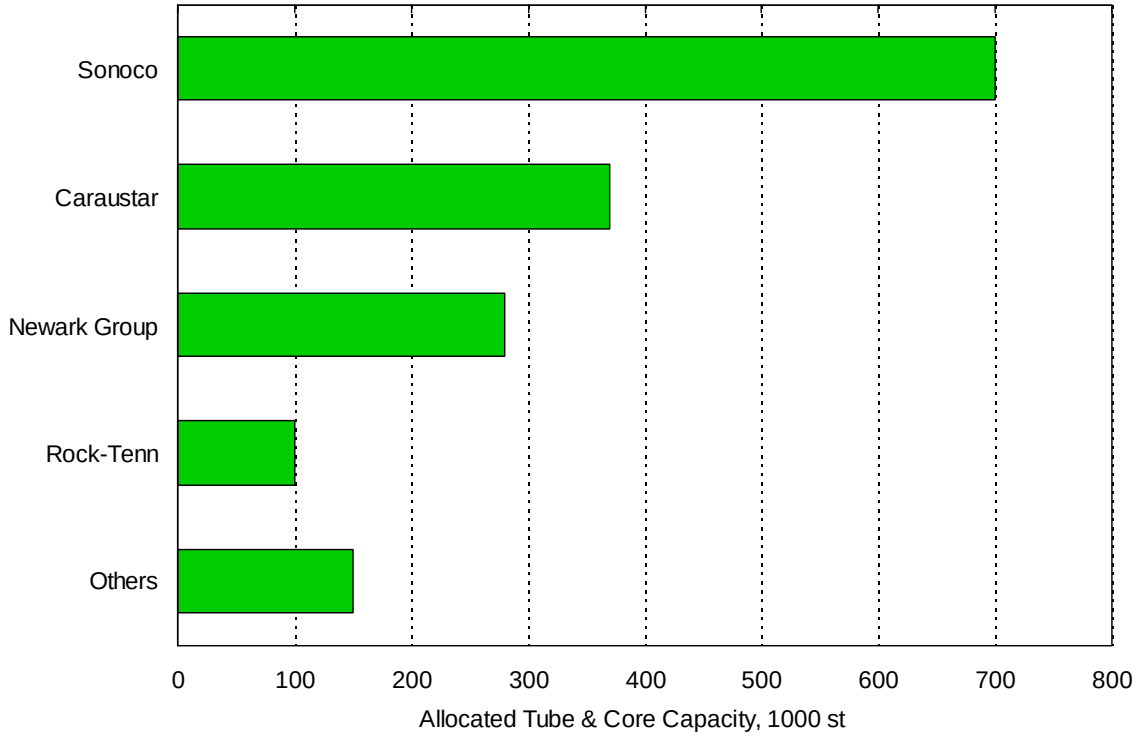


* Includes tube & core, gypsum, folding, specialty recycled boxboards.

Sonoco is the market leader in Tube & Core production with 44 % of production capacity and an estimated 50% of market share.

Figure 10

Top producers of tube & core stock



Sonoco is the largest North American producer of lightweight tube & core stock. The Menasha mill is Sonoco's key lightweight (tissue) and industrial (paper mill cores) tube & core stock production facility.

Changes in supply

There have been at least 10 paper machines (PMs) that have produced TCS which have exited the market since 2001. TCS supply has become much more concentrated. There are no capacity additions, but TCS is produced on PMs that swing from other grades. If conditions require it, the remaining PMs could produce more TCS.

Table 2
Tube and core capacity changes

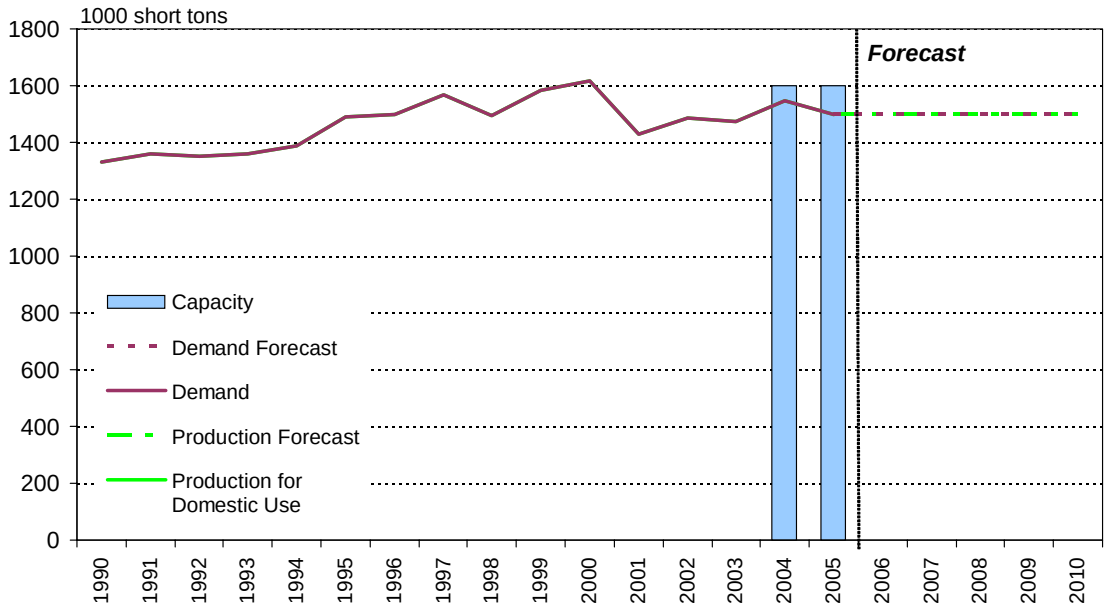
Company	Location	Timing	PM Capacity Change (1000 st)	Tube & Core Capacity Change (1000 st)	Comments
Sonoco	Atlanta, GA	2003	-45	-45	Shutdown mill
Sorenson Paperboard Corp	Palmyra	2003	-30	-17	Mill permanently shutdown due to the declining manufacturing economy & higher energy and fiber costs
Caraustar	Cedartown, GA	2004	-28	-28	Shutdown mill
Sonoco	Downingtown, PA	2005	-73	-33	Mill shutdown after fire
Sonoco	Hartsville, SC	2005	-20	-10	Shutdown PM 2

Supply/demand balance

The overall recycled paperboard market and the tube and core market specifically have been facing more difficult market conditions. Domestic demand and production have been declining. Smaller players have been edged out of the market. Higher energy and fiber costs have also attributed to mill shutdowns.

Figure 11

Tube, core, can, drum demand/supply balance



Demand for tube, core, can, and drum is expected to remain flat or decline slightly. Demand for more demanding applications of tube and core are increasing at a higher rate then demand for commodity oriented products.

Paper machines (PMs) that produce core board also have swing capacity to produce gypsum, grey, chip, or other uncoated recycled paperboards. If the market conditions were advantageous, these PMs could produce around twice the allocated capacity. There is relatively little trade of TCS, so demand and production are similar. If allocated capacity remains the same, operating rates are expecting to remain in the 93-95% range.

Product prices, historical and forecast

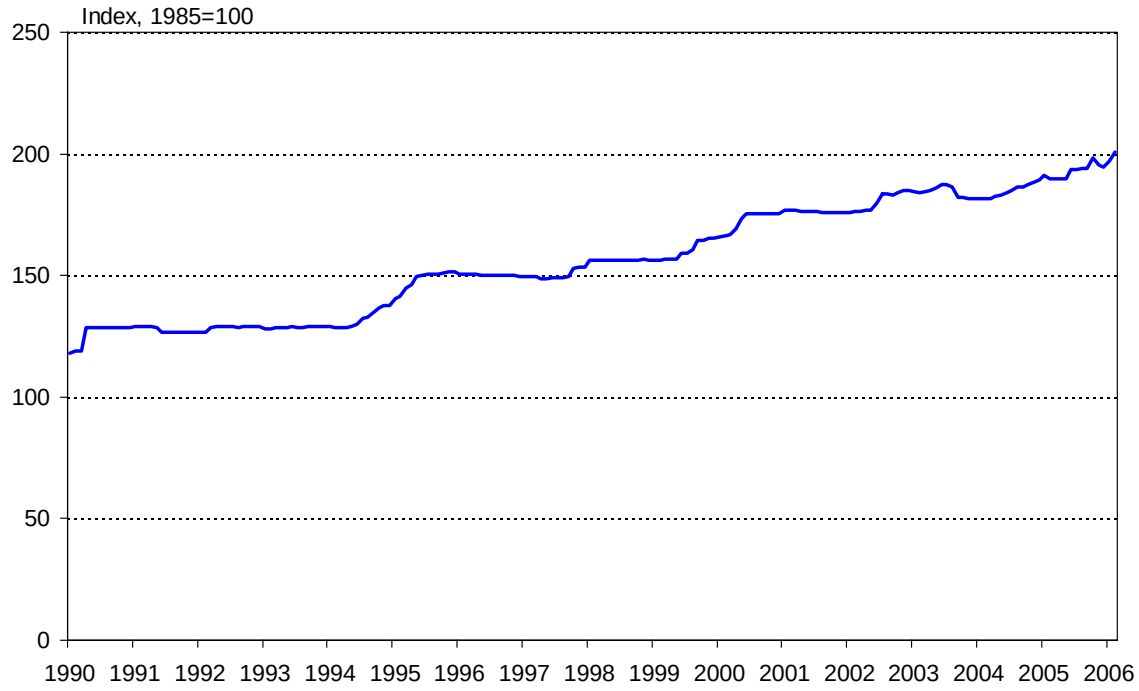
Uncoated recycled paperboard is not typically a paper grade whose pricing is tracked. The only recycled paper board grade reported is Coated Recycled Board (CRB). However, this grade almost exclusively goes into paperboard boxes.

According to industry sources, there were multiple TCS price increases in 2004, one increase in 2005, and another increase in 2006. These increases are based on increases in raw material costs.

There is a producer price index for tubes and cores tracked by the Census Bureau. This series gives an indication of the movement of tube and core products.

Figure 12

PPI for tube, core, and allied products



The PPI is increasing at an average rate of 3%/a. Pricing is expected to continue to increase as capacity is further rationalized. Increases in raw material costs have also contributed to pushing up the pricing of tube and core products.

1.1.1.4 Financial performance

Sonoco's Tubes and Cores / Paper segment had net sales of $1,482 million in 2005. Operating profit of the segment was $107 million, which represents approximately 7% of net sales.

Net sales of Sonoco's Menasha mill were $57 million in 2005, which accounts for approximately 4% of the net sales of the Tubes and Cores / Paper segment. Operating profit of the Menasha mill was approximately $10 million, or 18% of net sales. The operating profit margin of the Menasha mill was more than twice the average operating profit margin in the Tubes and Cores / Paper segment.

The good financial performance of the Menasha mill can be explained by the average to good cost-competitive position of the mill's paperboard machines. Also, the mill's location is relatively close to its customer base, including Sonoco's own heavy-wall core manufacturing and external customers for lightweight coreboard for consumer tissue rolls. Lowering the steam costs offers an opportunity to further enhance the mill's financial performance.

1.1.1.5 Overall viability and risk factors

As a summary, the viability of the operations of Sonoco's Menasha mill is supported by the following factors:

– Sonoco is the world's leading producer of paperboard tubes and cores. The tubes and cores is a key business segment for Sonoco. Sonoco exercises a vertical integration strategy, and considers integration to paperboard manufacturing as a competitive strength for its tubes and cores business.

– The Menasha mill produces both coreboard for heavy-wall cores for industrial applications, and lightweight coreboard for consumer end-uses. Serving the two market segments reduces the overall market risk.

– Despite being a mature market, the market for heavy-wall industrial cores is rather stable. The Fox River valley and the state of Wisconsin are important centers of papermaking, with considerable local demand for industrial cores.

– Sonoco is the largest tube and core manufacturer, as well as the largest coreboard producer in North America. Essentially all coreboard for heavy-wall industrial cores produced at the Menasha mill is supplied to Sonoco's own core converting plants. One of Sonoco's major core converting plants is located in Neenah, in close proximity to the Menasha mill.

– The market for lightweight coreboard for consumer end-uses is growing. Sonoco is also the largest producer of lightweight coreboard in North America. Wisconsin has substantial consumer tissue manufacturing and converting capacity, creating local demand for lightweight coreboard.

– The asset quality and cost-competitiveness of the board machines at Menasha is estimated to be average to better than average in the industry. Cost-competitiveness of the mill is supported by the fact that it has two board machines sharing the fixed costs.

– The older of the board machines (BM 1) is an average capacity coreboard machine in North America. Also, the machine's cash manufacturing costs are estimated to be close to the industry average.

– The newer of the board machines (BM 2) is one of the largest-capacity coreboard machines in North America. Because of its fourdrinier forming section, the machine's maximum operating speed is clearly higher than that of typical cylinder former coreboard machines. Based on cash manufacturing costs, Menasha BM 2 is estimated to be a relatively low-cost producer of lightweight coreboard, which the machine is specially designed for.

– Sonoco is a profitable company, and the operating profit of the Menasha mill clearly exceeds that of the Tubes and Cores / Paper segment on average.

– Lower steam costs as a result of outsourcing the process steam from a coal-fired power plant can have a meaningful impact on the costs relative to the mill's competitors.

The following risk factors can be recognized:

– The mature nature of the tube & core business in North America could have negative impacts on Sonoco in the future. However, Sonoco's position as the market leader could be an advantage as others maybe forced to exit the market.

– Sonoco, as well as the industry in general, has suffered from excess capacity. Since 2003, aggressive measures have been taken to close down underperforming plants that adversely impact profit margins. However, profitability of the Menasha mill is well above the average, and it is not subject to restructuring or closure plans.

– In Sonoco's business portfolio, the primary role of the Tubes and Cores / Paper segment is to provide steady cash flow from its operations, while the Consumer Packaging are Packaging Services segments are seen as growth vehicles. As a result, only limited investment funds can be assumed to be available for the Tubes and Cores / Paper segment in the future.

– Due to its aging equipment, and space limitations, the Menasha site offers only limited mill development opportunities.

– The energy costs of the board machines at Menasha are estimated to be on the high side in the industry, explained by both relatively poor steam economy and high boiler fuel costs.

– Due to operations under its previous ownership, the Menasha mill is held jointly responsible for a small portion of the PCB contamination of the Fox River. Sonoco has accrued an environmental reserve of $12.5 million as an estimate of the portion of the costs that the company is expected to fund. The actual costs of the clean-up, however, could be higher than the current estimated costs.

1.1.2 Alcan

1.1.2.1 Corporate background

Corporate overview

Alcan is a global aluminum and packaging company. Alcan is the world's second largest producer of primary aluminum. Alcan Packaging, a division of Alcan, is ranked as the leading flexible food packing supplier globally.

Alcan's global sales totaled $20.3 billion in 2005. The company has approximately 65,000 employees worldwide. The company is headquartered in Montreal, Canada, while Alcan Packaging is headquartered in Paris, France. Alcan is a publicly-owned company traded on the Toronto, New York, London, Paris and Swiss stock exchanges.

Alcan is a marginally profitable company, and has yielded an approximately 1% to 2% return on shareholder's equity during the past three years. In the end of 2005, the debt-to-total capital ratio was approximately 40%.

Business areas

Alcan operations are composed of four business groups:

- Bauxite and Alumina
- Primary Metal
- Engineered Products
- Packaging

Alcan Packaging

Alcan Packaging is one of the leading suppliers of packaging materials and solutions worldwide. It offers a broad range of packaging solutions using plastics and other engineered films, aluminum, paper and board, and other materials. The key market sectors are food, pharmaceutical and medical, beauty and personal care, and tobacco packaging. Alcan Packaging has 150 plants in 30 countries.

Sales revenues of Alcan Packaging totaled $6.0 billion in 2005, which accounts for approximately 30% of Alcan's consolidated revenues. The sales revenues of Alcan Packaging were essentially unchanged since the previous year. Sales growth was hampered by lower volumes of European demand and divestment of several non-core businesses.

Business group profit of Alcan Packaging was $595 million, which represents 10% of sales revenues. The objective is to achieve 15% business group profit margin by 2009.

Alcan Packaging has over 140 facilities worldwide, with a total workforce of 31,000 employees.

Alcan Packaging group comprises six business sectors: Food Packaging Europe, Food Packaging Americas, Food Packaging Asia, Global Beauty and Personal Care, Global Pharmaceutical and Medical, and Global Tobacco Packaging.

1.1.2.2 Menasha plant operations

Overview

Alcan Packaging's Menasha plant is located at 271 River Street, Menasha, on the southeast side of Menasha Utilities' power plant.

The Menasha plant was previously owned by Pechiney, and became part of Alcan through the acquisition of Pechiney in 2003.

The Menasha plant serves primarily Alcan Packaging group's Food Packaging Americas business sector, which operates a total of some 30 plants, 20 of which are located in the US. Annual sales revenues of Food Packaging Americas are estimated to be in order of $1.7 billion. Sales revenues of the Menasha plant totaled $113 million in 2005.

The main products of the Menasha plant include flexible food packaging, including a wide range of multi-layered printed and laminated packaging materials with specific barrier properties. Approximately 70% of the business of the Menasha plant serves cheese packaging. Other products related to food packaging include yoghurt and ice cream lids, individual-serving butter lids, cookie and biscuit wrappers, and sachets for spices and single-serving cocoa and coffee pouches. Also the pharmaceutical sector is served by some products, such as condom wrappers and tear-resistant backing of blister packs for pills.

Primary raw materials used are plastic films purchased in film format, and granular plastics and resins used for laminating. A smaller amount of aluminum foil and paper is used in the laminated products.

The main steps in the production process include printing, laminating, and slitting.

The production process starts by printing the customer-specific design of the packaging, most commonly on plastic film. Both rotogravure and flexographic printing are available at the Menasha plant.

As the next step, the printed film is laminated together with other substrates providing desired functional properties, such as a barrier against moisture, oxygen or odor. The final product can contain up to nine different functional layers depending on the product specifications. At the Menasha plant, both adhesive laminating and extrusion laminating can be applied. Also wax coating is possible.

Finally, the product is cut to the dimensions desired by the customer and wound to customer rolls on slitter rewinders. The newest slitter rewinders include also laser scoring to make the scores which help consumers to tear open the package.

The Menasha plant has a history of several decades of producing packaging materials. Earlier, the plant was integrated with a James River specialty paper mill on the adjacent lot. It supplied the paper, which was used as the primary packaging material. Now, the paper mill is shut down and demolished, and paper largely replaced by plastics as the main packaging material used.

Main equipment

Alcan Packaging's Menasha plant consists of two parts: the original old plant building and a new building completed in 2003.

The old plant building houses the following main equipment:

- (3) 8-color rotogravure printing presses
- (6) Wax coaters
- (1) Adhesive laminator
- (2) Extrusion laminators
- (10) Slitter rewinders

The new plant completed in 2003 houses:

- (4) 10-color flexo printing presses (Windmöller & Hölscher 2003)

The new plant has a space reservation for a fifth printing press.

A further expansion of the Menasha plant is currently underway. Attached to the building housing the flexo printers, another 40,000 ft^2 new plant building will be added, completed in the third quarter of 2006. This section of the plant will house a new extrusion laminator.

The new extrusion laminator will be the widest one at Alcan's plants. Its capacity is estimated to correspond to approximately that of three of the new flexo printers. The new laminator's position immediately next to the printers will significantly help simplifying material transfers and reducing lead times in production.

Capital investments

Recent major investment projects at the Menasha plant include the following:

2003	New plant building	*incl. below*
	(4) New 10-color flexo printing presses	$18 million
2006	New plant extension	$ 3 million
	(1) New extrusion laminator	*n.a.*

Pechiney completed a major modernization project at the Menasha plant in 2003. Four state-of-the-art 10-color flexo printing presses were installed in a new building built on the northeast side of the original plant building. The new printing presses replaced old 6-color flexo printers originating from the 1960s. The total cost of the project was approximately $18 million. This investment can be considered as decisive for the future of the Menasha plant. Without the modernization, the flexo printing equipment would have become outdated and the whole plant under risk to be shut down.

Alcan acquired Pechiney in 2003.

Currently, a second stage of expansion is in progress. A new large-scale extrusion laminator will be installed in a new plant building attached to the one housing the new printing presses. The investment in the plant building is approximately $3 million, but the investment cost for the laminator equipment has not been disclosed. The investment can be considered as substantial in the flexible food packaging industry, and it is estimated to exceed $10 million.

Asset quality and competitive position

The new 10-color flexo printing presses represent the latest technology in the industry. New flexo printers are able to offer near-rotogravure print quality, but with shorter print runs and lead times.

The new extrusion laminator to be installed towards the end of 2006, will also represent leading technology in the industry. Pechiney and Alcan have developed proprietary, patented technologies to create desired barrier properties by extrusion, instead of film laminating which is a commonly used technology by competitors. Extrusion of the barrier materials offers better control of the barrier properties and use of materials.

Together the flexo printers and laminator in the new purpose-built premises are designed for minimized in-plant material transfers and short lead times in production. The new plant set-up is designed to offer customers two weeks' order-to-delivery service, instead of three to eight weeks which is customary in the industry.

Much of the other equipment at the plant, including the rotogravure printing presses, wax coaters, laminators and slitter winders, represent typical technology of the 1970s and 1980s. These assets, as such, are thought to offer little particular competitive strength, but the competitive advantages of the plant originate rather from proprietary results of product and

manufacturing process development, such as barrier extrusion and multi-layered product structures with up to nine functional layers. Two-dimensional laser scoring rewinders represent advanced technology.

At the old plant, production premises are located in two floors. This can result in operational inefficiencies in internal material transfers and lead times.

Environmental compliance

Based on conversation with management, Alcan Packaging's Menasha plant is understood to operate according to all permit limits and regulations.

Perhaps the most critical environmental issue at this type of packaging material plants regards emissions from the solvents used in printing processes. Many of the solvents used in the inks and lacquers are classified as volatile organic compounds (VOC). Proper control of VOC emissions is important for the sake of workplace health and safety as well as environmental protection. VOCs are hazardous and flammable, and atmospheric pollutants contributing to, e.g., ground-level ozone creation, which can be harmful for animal and plant life.

The combined VOC emissions of Alcan Packaging totaled approximately 42,000 tons in 2004, corresponding, on average, to 7 tons of VOC emissions per each million dollars of packaging sales.

The level of harmful emissions can be reduced by adopting specific processes and equipment, and by eliminating the use of certain known harmful substances. In 2004, a solvent distillation unit was commissioned at the Menasha plant, resulting in substantial reduction of atmospheric emissions of VOC from the plant.

1.1.2.3 Market assessment

Flexible packaging is the second largest type of packaging, following containerboard. Flexible packaging is growing faster than other packaging types.

Key flexible packaging materials include plastics, papers, and foils. The plastic film portion with almost 75% of the market is expected to continue to take market share from paper (24% market share) and foil (3% market share) segments.

The largest and fastest growing end use for flexible packaging is food. Retail non-food is another key end use for flexible packaging.

Pricing for flexible packaging is driven by the cost of raw materials, specifically resins for plastic film packaging. Raw material is the largest cost input to flexible packaging. Recently there have been a series of price increases in resins due to increases in oil pricing.

Driving forces

Drivers for flexible packaging are end use growth. Food packaging is the largest end use for flexible packaging. Film packaging is a key packaging material/substrate.

A key reason to use flexible packaging is source reduction of packaging materials & visual appeal. Flexible packaging is compact before and after packaging use. Packaging conforms to the packaged product saving shelf space. Consumer products companies are always looking for ways to differentiate their products, using flexible packaging is one method to achieve this. Flexible packaging can take multiple forms including bags and pouches.

Key reasons to choose film substrates include barrier properties, cost advantages (depending on film chosen), availability of a range of colors, and visibility of packaged product, among others.

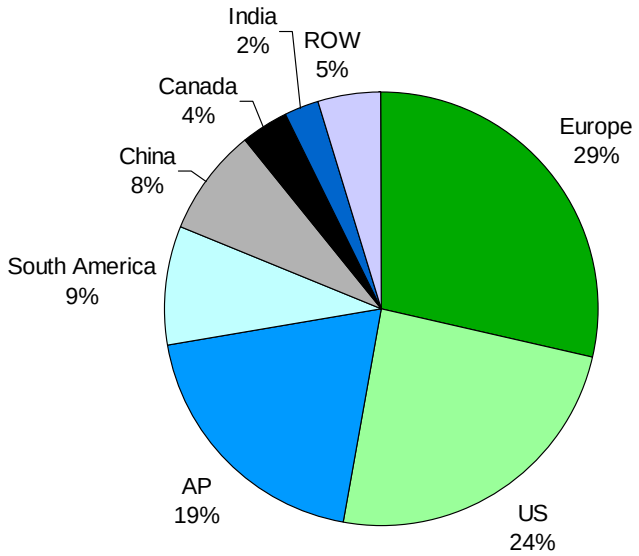
Key trends in flexible packaging are the constant development of new film substrates to meet changing packaging demands. This includes new laminations/combinations and new chemistries.

Development of demand

Global flexible packaging is approximately 14 billion short tons and is expected to grow at a rate between 4 and 5%/a for the next 5-10 years. The North American flexible packaging market accounts for 28% of global flexible packaging demand.

Figure 13

Flexible packaging demand 2004



US flexible packaging demand is estimated at 3.3 million tons and has been growing at 3%/a. The US market is a key growth market for flexible packaging.

Key flexible packaging materials include plastics, papers, and foils. The plastic film portion with almost 75% of the market is expected to continue to take market share from paper (24% market share) and foil (3% market share) segments.

There are two key types of plastic films used in flexible packaging, polyethylene (over 60% market share) and polypropylene (over 20% market share), which together represent over 80% of the plastic film market. These two films will take the largest volume of new packaging growth.

Key end use markets

The flexible packaging market can be segmented in two large use focuses food and retail items. Food, the largest market segment for flexible packaging, is an estimated 55-60% of flexible packaging demand. Food covers a wide range of products having different flexible packaging requirements. Food can be further segmented into retail food for consumers and institutional food used in commercial applications. Growth flexible packaging use in food applications will outpace growth in other applications.

The retail non-food market represents a 15 % share of the market and includes a broad range of miscellaneous products such as household goods, pet food, garden supplies, and cosmetic samples. Other key markets for flexible packaging include medical and pharmaceutical, institutional, agricultural, and industrial applications.

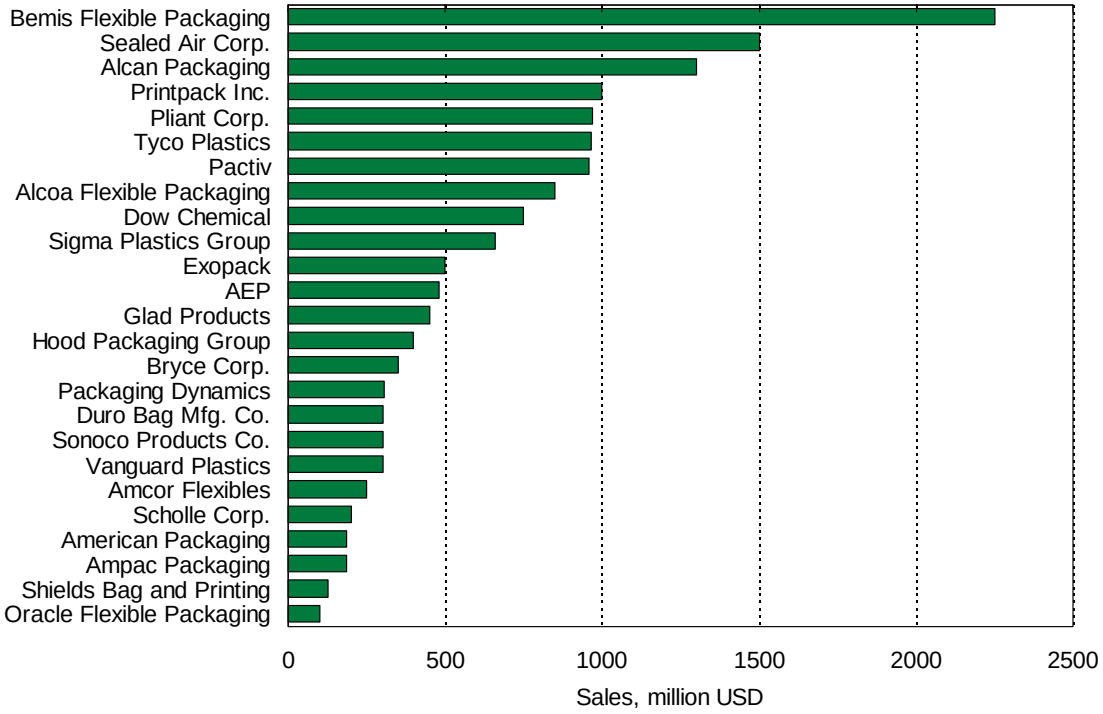
Alcan Packaging is a key flexible packaging converter in the food segment and this is a core packaging segment for Alcan Packaging. Alcan Packaging is a leading supplier of flexible packaging to the cheese industry. The Menasha, WI facility is heavily focused on the cheese packaging market. Cheese production is growing in the United States and is a key industry in Wisconsin. US cheese production grew 3% between 2004 and 2005. Wisconsin alone accounts for almost 27% of cheese production in the US. There are no major shifts of cheese production expected, so market conditions for this flexible packaging plant are expected to continue to be favorable.

Competitive environment

The flexible packaging market is estimated at USD 21 billion industry, including consumer retail shopping bags, storage bags, wraps and trash bags. The segment of the flexible packaging market is USD 16.2 billion, which excludes consumer bags list above. The top 5 producers represent 43% of the USD 16.2 billion flexible packaging market. Bemis Flexible Packaging, Sealed Air Corp, and Alcan Packaging are the largest flexible packaging producers in North America.

Figure 14

Top flexible packaging converters*



* Includes USD 16.2 billion of the flexible packaging market

Alcan Packaging is the third largest flexible packaging converter with estimated US sales of USD 1.3 billion in 2004.

Changes in supply

There has been quite a bit of merger and acquisition activity in the flexible packaging market. The result of which has been a consolidation of the supply, which has helped reduce the capacity levels.

Table 3
Selected changes in industry structure

Company	Former Company	Transaction Details	Date
Ampac Packaging		Flexicon (customized laminations)	1/2005
Bemis		Additional 43% stake in Dixie Toga (Brazil – flexible & other types of packaging)	1/2005
General Electric (GE Commercial Finance)		Applied Extrusion Technologies (oriented polypropylene films)	3/2005
Alcan Incorporated (Canada)	CM Printing (Malaysia)	Tobacco packaging production facility (Malaysia)	4/2005
Scholle		Proma Technologies (metallized holographic papers)	4/2005
Ampac Packaging		Kapak (stand-up pouches & rollstock)	5/2005
Ampac Packaging (Canada)	Parkside Packaging (UK)	Flexible food packaging production facility (Poland)	5/2005
Ampac Packaging (Alcoa Flexible Packaging)	Reynolds American (RJR Packaging)	Cigarette foil and inner frame production assets	5/2005
Pinnacle Packaging (Oracel Packaging)	Reynolds American (RJR Packaging)	External packaging business (flexible & other types of packaging for food, health care, tobacco & consumer items)	5/2005
Sun Capital Partners		Cello-Foil Products (stand-up pouches, bags, overwrap, high-barrier films & multilayer laminates)	7/2005
Cello-Foil Holding		Packaging Group (Canada – multilayer films & vacuum-sealed packages)	9/2005
Sun Capital Partners	Sterling Group	Exopack Holding Partners (converted plastic & Paper packaging)	10/2005
Apollo Management	Tyco International (Bermuda)	Tyco Plastics, Ludlow Coated Products & Tyco Adhesives divisions (converted flexible packaging & other products)	12/2005
Alcan Incorporated (Alcan Packaging Mexico)		Recubrimientos y Laminaciones de Papel (Mexico –multilayer films & related services)	1/2006
Sonoco	Wycon	Sonoco purchased Wycon flexible packaging facility	3/2006

Sonoco's most recent purchase was Wycon, based in Waco, Texas, in early 2006 which expands their flexible film capacity. Sonoco expects to expand this facility further in May 2006 with an additional flexographic printing press.

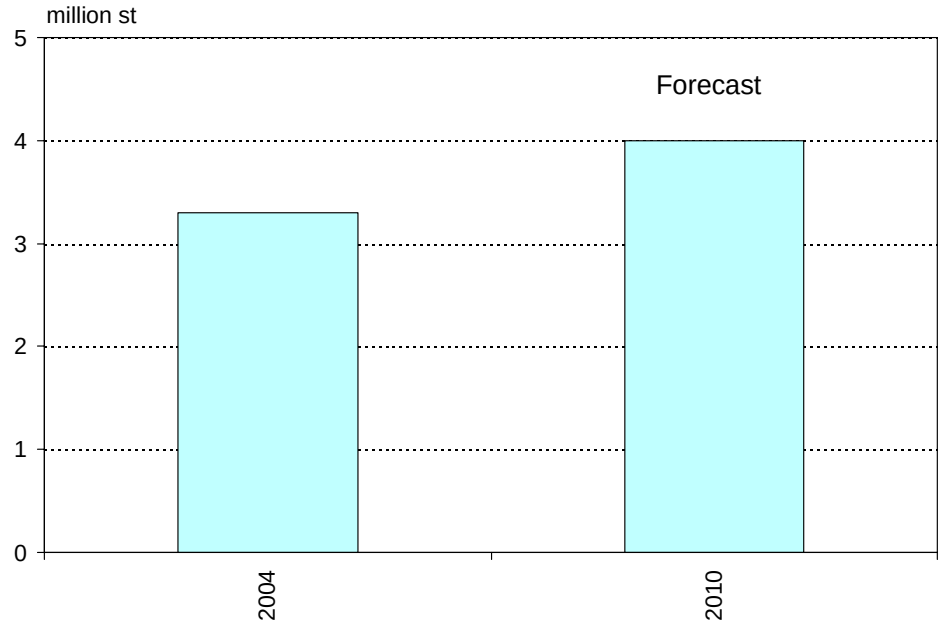
Alcoa Flexible Packaging, a unit of Alcoa, announced restructuring of some business segments earlier this year. They will close two medical packaging facilities and consolidate their business into one center of excellence in its Downington, PA location.

Supply/demand balance

There is a situation of over capacity in flexible packaging in North America. Consolidation and rationalization have helped supply come more in line with demand.

Figure 15

Flexible packaging demand forecast



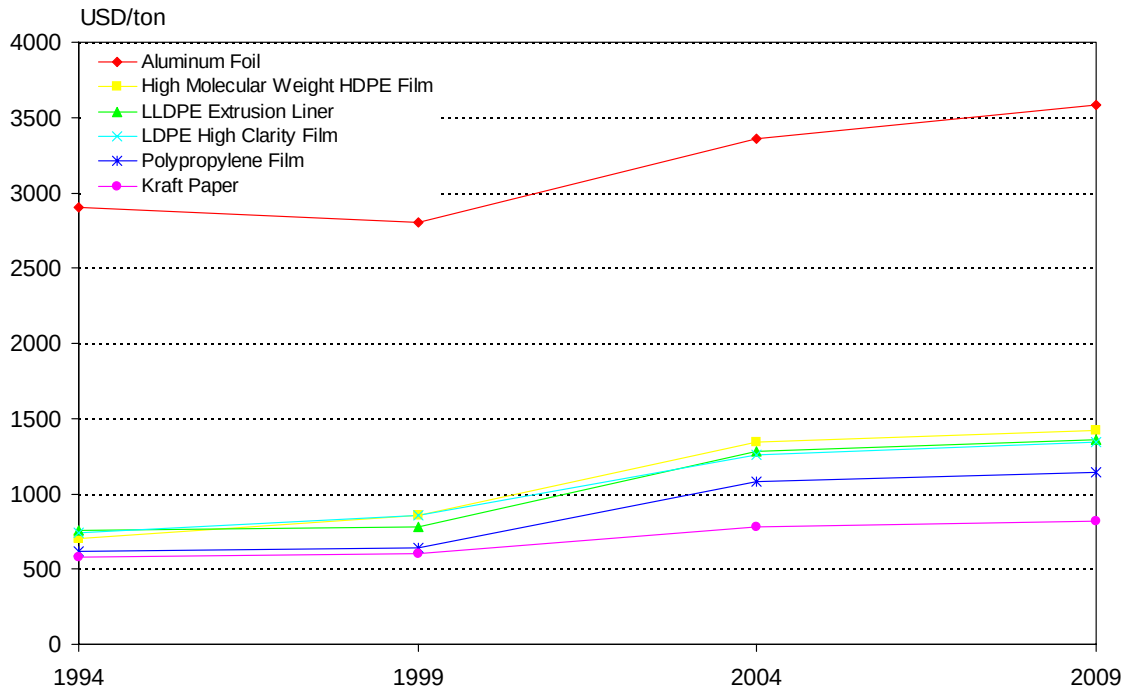
Flexible packaging demand is expected to grow at 3 %/a. In 2004, demand is 3.3 million tons and is expected to grow to 4.0 million tons.

Product prices, historical and forecast

Pricing for flexible packaging is driven by the cost of raw materials, specifically resins for plastic film packaging. Raw material is the largest cost input to flexible packaging. Recently there have been a series of price increases in resins due to increases in oil pricing.

Figure 16

Flexible packaging raw material pricing



1.1.2.4 Financial performance

Sales revenues of Alcan Packaging totaled $6.0 billion in 2005. Business group profit of Alcan Packaging was $595 million, which represents 10% of sales revenues. The objective is to achieve 15% business group profit margin by 2009.

Annual sales revenues of Food Packaging Americas, which operates a total of some 30 packaging plants, are estimated to be in order of $1.7 billion.

Sales revenues of Alcan Packaging's Menasha plant was $113 million in 2005, which accounts for an order of 2% of Alcan Packaging's sales worldwide, and an order of 7% of the sales of Food Packaging Americas.

Profit margin of the Menasha plant was not disclosed. Considering the relatively large scale of the Menasha operations, its partially state-of-the-art production facilities, good market position, and innovative product offering, its financial performance could be assumed to be better than average among Alcan Packaging.

Since Alcan acquired Pechiney, sales revenues of the Menasha plant have grown from $92 million in 2003, to $96 million (+4%) in 2004, and $113 million (+18%) in 2005. This year's sales are expected to be in order of $120 million (+6%), and the long-term target is to grow the sales revenues of the Menasha plant to be in the range of $150 million to $160 million.

1.1.2.5 Overall viability and risk factors

As a summary, the viability of the operations of Alcan Packaging's Menasha plant is supported by the following factors:

– Alcan is one of the leading suppliers of packaging materials and solutions worldwide. Alcan Packaging is ranked as the world's leading supplier of flexible food packaging. Packaging is seen as a core business in Alcan's business portfolio and is expected to remain so in the future.

– Alcan Packaging offers a broad range of packaging solutions based on different materials, including plastics and other engineered films, aluminum, and paper and board. Main products of the Menasha plant include flexible food packaging with specific barrier properties. Most of the production is based on plastic films and resins.

– In flexible food packaging, a clear trend from paper-based flexible packaging to plastic-based flexible packaging has prevailed for the past 15 years. In general, plastic materials are more versatile and can offer improved barrier properties.

– Alcan Packaging's strategy includes creating centers of excellence for specific packaging technologies serving special client needs. The Menasha plant has a clear product focus, with approximately 70% of its business serving cheese packaging. Wisconsin is a major cheese producing region with 27% of US production of cheese, making it a logical location for a cheese packaging supplier.

– Pechiney and Alcan have developed proprietary, patented technologies to create desired barrier properties by extrusion, instead of film laminating which is a commonly used technology by competitors. Extrusion of the barrier materials offers better control of the barrier properties and use of materials.

– As a result of innovative packaging development, the plant has been able to grow its market share from under 20% to over 50% in cheese packaging.

– Pechiney and Alcan have made significant investments in modernizing the Menasha plant in recent years. The recently invested assets are expected to safeguard the plants competitiveness for years to come.

– The asset quality of the new 10-color flexo printing presses represents the best in the industry today. New flexo printers are able to offer near-rotogravure print quality, but with shorter print runs and lead times. The new extrusion laminator to be installed this year will also represent leading technology in the industry.

– An important source of competitive advantage in the packaging industry is the supplier's ability to respond quickly to the clients' varying delivery needs. Together the new flexo printers and laminator are designed for minimized in-plant material transfers and short lead times in production, allowing two weeks' order-to-delivery service, instead of three to eight weeks which is customary in the industry.

– Since Alcan acquired Pechiney, sales revenues of the Menasha plant have grown steadily. The target is to grow the sales revenues to $150 million or over.

– Alcan as a whole is only marginally profitable, but the profitability of the Packaging business group is better than the average of Alcan. Business group profit of Alcan Packaging was 10% of sales revenues. Profit margin of the Menasha plant was not disclosed, but its financial performance could be assumed to be better than average among Alcan Packaging. The objective is to achieve 15% business group profit margin by 2009.

The following risk factors can be recognized:

– The business portfolio of Alcan is perhaps not ideal from the investors' perspective, as it includes such different businesses as primary aluminum production and flexible food packaging. A possible spin-off of Alcan Packaging would, however, not change its position as a leading supplier in many of its business sectors. Also, current financial performance of Alcan Packaging is better than that of the corporation as a whole.

– A general environmental initiative promotes reducing the amount of packaging materials, and increasing their recycling. Recycling of plastic consumer packaging materials is not well organized, in general, and plastic packaging and multi-layered composite materials may suffer from poor environmental image compared with some other materials.

– Plastic films and resins are the largest cost component in plastic packaging costs. Recent increases in oil prices have increased the costs for plastic materials, potentially impairing the cost-competitiveness of plastic packaging against alternative materials. Plastic packaging suppliers, however, are commonly able to pass the material cost increases into their product prices, although with a time delay.

– Much of the equipment at the old part of the plant represents older-generation technology with few particular competitive strengths. At the old plant, production premises are located in two floors, which may result in operational inefficiencies in internal material transfers and lead times.

– Many of the solvents used in the inks and lacquers in the printing processes are classified as volatile organic compounds (VOC) whose emissions are controlled. In the future, stricter environmental regulations may require further reducing the emissions, which may involve investments in process or equipment changes.

1.1.3 George A. Whiting Paper Company

1.1.3.1 Corporate background

Company overview

George A. Whiting Paper Company is a small family-owned specialty paper producer. The company owns and operates a one paper machine mill with an annual saleable capacity in order of 5,000 tons in Menasha.

George A. Whiting Paper Company is a text and cover paper manufacturer. Its special niche is colored paper production in short production runs.

Assuming an average sales price of $2000 per ton, the company's annual sales are estimated to be in order of $10 million. The mill has 53 employees, including the sales personnel.

George A. Whiting Paper Company could be characterized as a conservative company with low debt.

Ownership background

George A. Whiting Paper Company is privately owned by the Whiting family. The company was established, and the paper mill built in Menasha in 1882. The current main shareholder representing the Whiting family is the fourth generation. His two descendants are actively involved in the company management, and the son of the current main shareholder is assumed to inherit the major shareholding in the future.

1.1.3.2 Whiting paper mill operations

Overview

George A. Whiting Paper Company's mill is located at 100 River Street, Menasha, on the northwest side of Menasha Utilities' power plant.

The Whiting paper mill produces colored specialty papers on a single paper machine with a trim width of 76 inches (1.93 m). The annual saleable production is approximately 5,000 tons. Most of the production is shipped in sheet format. Production is essentially 100% based on recycled fiber.

The mill was established and the paper machine originally installed in 1882.

Product range

The Whiting paper mill is a niche producer of specialty grades. The three main product groups are: decorative matboard for picture framing, decorative box wrap, and colored scrap book paper.

Decorative matboard for photograph and other picture framing accounts for approximately two thirds of the mill's production. Matboard is available in custom colors and various textures, e.g. imitating that of leather or raw silk. The mill acts as an OEM manufacturer for leading matboard and picture framing suppliers, such as Crescent Cardboard and Nielsen & Bainbridge, also for export market. The mill has no brands of its own for matboard.

Decorative box wrap is used as a laminating paper to line commodity chipboard or microfluting to create decorative packages. Customer-specific unique colors and various textures are available. Decorative box wrap is typically supplied to box converters.

Colored scrap book paper's demand is following a popular trend in the US and Canada for scrap books and other self-made art works, home-made greeting cards, etc., as hobby. Some 50 to 100 different colors are made available.

The common factor for the different products in the mill's wide product range is colored paper. Supplying tailored colors in small orders offers a market niche, for which larger-scale production machinery would be a disadvantage, unlike in commodity paper making.

Mill operations

The mill operates 24 hours a day, typically 6 days a week. If demand slows down, operations can be limited to 5 days a week. Being a colored paper producer, the paper machine has to be stopped for wash-ups once or several times each week. Therefore, the non-continuous operating mode does not represent the same level of handicap it would elsewhere in the paper industry.

Operating the mill is characterized by short production runs and frequent grade and color changes. In a week, 20 to 25 production runs are typical. A typical production run can be only 3 to 5 tons. Whiting's minimum order can be as small as 1 ton, compared to a 5 or 10 ton minimum order size at many competitor mills.

Main equipment

The key production assets at the Whiting paper mill include the paper machine, and various finishing and sheeting equipment.

The paper machine is a fourdrinier machine equipped with a driven dandy roll. The machine has an hourly capacity of 0.8 to 2.0 t/h, depending on the basis weight. Average saleable production totals approximately 15 t/d. The low average saleable production relative to the theoretical machine capacity is explained by numerous grade and color

changes due to very short production runs. The machine has a trim width of 76 inches and a maximum operating speed of 360 fpm.

The paper machine is an old and small-scale machine originally commissioned in 1882, although very few original components of the machine are in use any more. The dryer section framing of the machine is estimated to originate from the 1930s. The wet-end of the machine was rebuilt in 1999, including new fourdrinier framing, dewatering elements, new dandy roll, and new controls. A second-hand headbox was also installed. In 2003, second-hand paper machine components were purchased from the closed-down former Gilbert Paper Company's mill. The second-hand press section was installed in 2003, but the second-hand drying cylinders have not yet been installed. They are dimensioned for 75 psi steam pressure, instead of 35 psi steam used in the current drying cylinders. In 2005, a new state-of-the-art color measurement and control system was installed. This is an essential help for color adjustment and stabilization for colored paper production in short runs. The machine control system dates back to the 1980s, and it is currently under consideration to be upgraded. An upgraded control system is expected to be beneficial for improved and quicker moisture control after basis weight changes.

Table 4
Whiting paper machine technical data

	PM 1
Start-up	Orig. 1882
Wire width	84" = 2.13 m
Trim width	76" = 1.93 m
Max. operating speed	360 fpm = 110 m/min
Daily production	15 t/d (avg) / 24 t/d (max)
Annual production	5,000 t/a
Headbox	Open headbox orig. 1962 / 2nd hand 1999 Manual lip control
Former	Fourdrinier with driven dandy roll 1999
Press section	(1) Straight suction press (1) Straight plain press 2nd hand 2003
Dryer section	(24) Dryer cylinders Ø 40" 35 psi = 2.4 bar
Size press	Vertical size press 1978 / reb. 2002
After-dryer	(6) Dryer cylinders Ø 40" 35 psi = 2.4 bar
Machine calender	4-roll calender (Appleton)
Machine reel	Pope reel
Slitter winder	2-drum slitter winder (Appleton)

The paper machine is followed by a slitter winder. Other finishing equipment includes:

- (2) Off-machine embossing calenders
- (1) Slitter rewinder for small bobbins (Cameron)
- (1) Precision folio sheet cutter
- (1) Sheet cutter
- (2) Guillotine trimmers

Part of production goes through off-machine embossing calenders to create a desired surface pattern, such as linen, raw silk or leather.

Products can be shipped in customer rolls, but more are commonly sold in sheet format. Customer sheets are cut on a precision sheeter. An older sheet cutter is also available for production, which is further cut on semi-manual guillotine trimmers down to 2 x 5 inches size. Sheets can be delivered wrapped in reams, in carton, or on pallet. Ream wrapping and carton packing is done manually. Sheet pallets are stretch-wrapped semi-manually.

The precision sheet cutter was acquired on the first half of the 1980s. Most of the other finishing equipment is approximately of 1960's vintage.

Capital investments

As a small company, it has always been important for George A. Whiting Paper Company to be cautious in its investments.

Latest investments at the Whiting paper mill include:

1999	Paper machine wet-end rebuild	
2003	Installation of 2nd hand press section	
2005	State-of-the-art color measurement and control system	$250,000

Future investments considered include:

- Installation of 2nd hand drying cylinders
- Upgrade of PM control system

Cautious investment policy can be expected to be continued. Investment level is, however, planned to remain above depreciation.

Asset quality

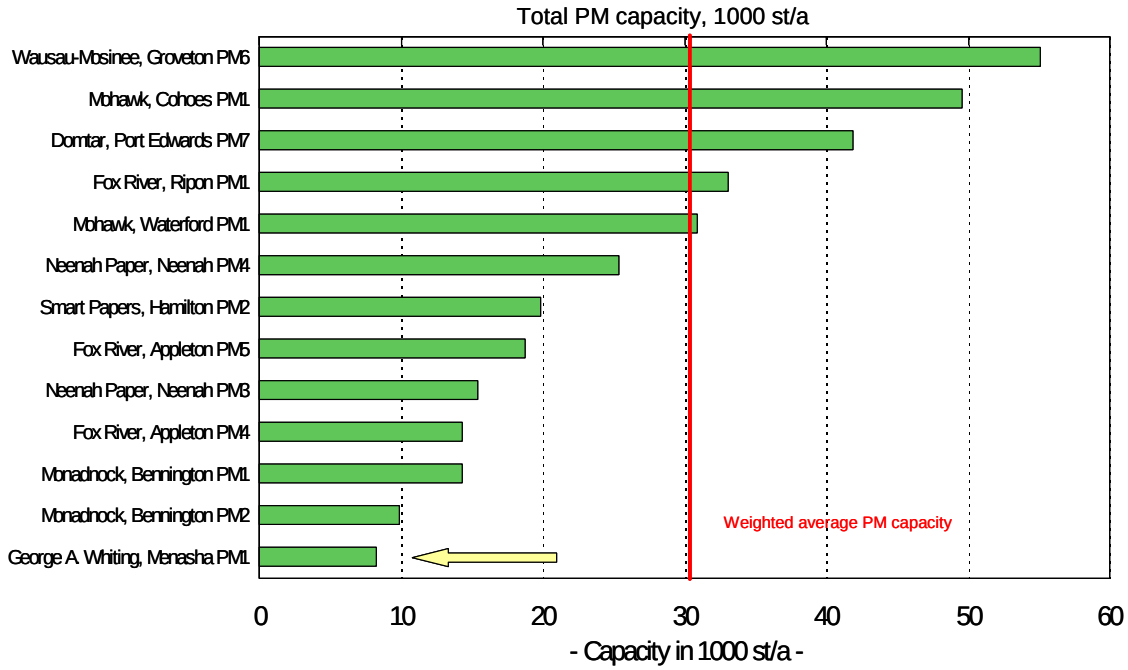
Capacity

The Whiting paper machine is among the smallest paper machines in North America. The colored text and cover paper machines are small, in general, compared to commodity paper machines. Typically, the colored text and cover paper machines have a capacity in the range from 10,000 t/a to 50,000 t/a, with an average capacity of approximately 30,000 t/a.

Even among these specialty paper producers, the Whiting machine with an annual output in order of 5,000 t/a is small.

Figure 17

Top Paper Machines Producing Text & Cover



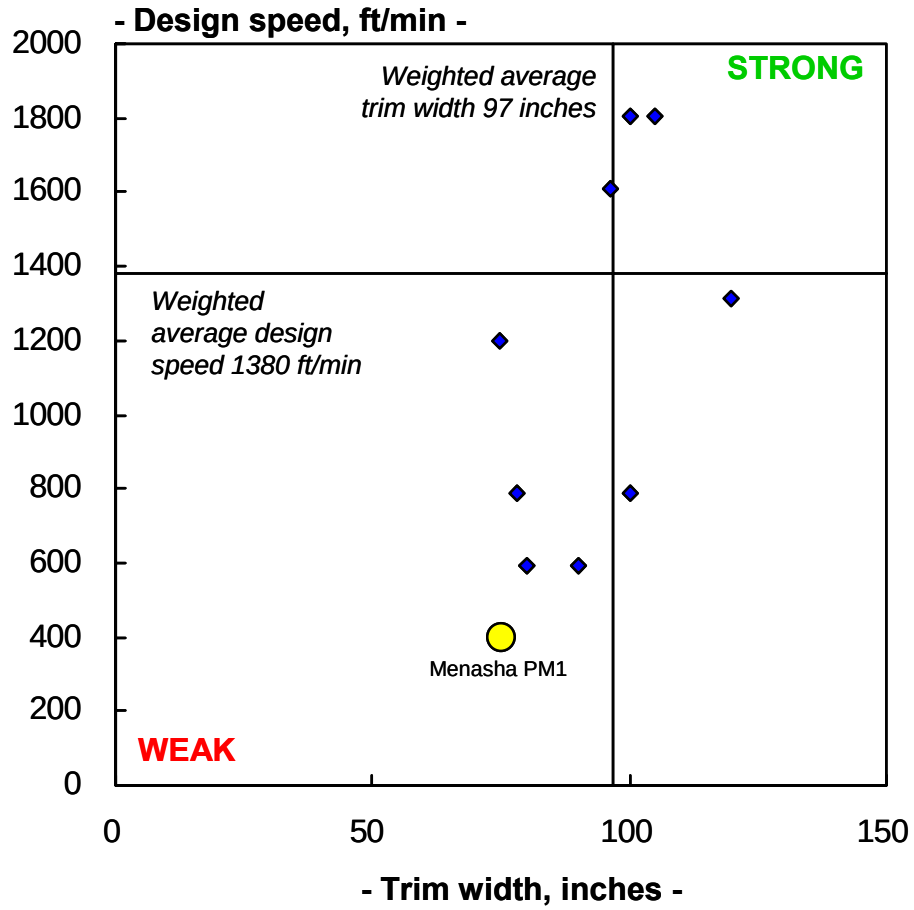
Trim width

Majority of the North American text and cover paper machines have their trim width in the range from 80 to 120 inches, the average width being around 100 inches.

The Whiting machine with a trim width of 76 inches is in the low end of that range.

Figure 18

Industry structure – text and cover producers in North America



Operating speed

Maximum operating speeds for the North American text and cover paper machines are typically in the range from 600 fpm to 1,800 fpm.

The maximum operating speed of the Whiting machine is only 360 fpm, which is slow compared to the competitor machines. The speed is limited by the dryer capacity, however. The machine's drive speed is 580 fpm, which is more comparable to the typical speed range.

Process inputs

The main process inputs and production costs for colored paper production include:

- Fiber
- Dyes and other chemicals
- Fuel for dryer steam
- Electric power
- Labor

Fiber raw material is a major cost component for papermaking. Fiber furnish at the Whiting paper mill is essentially 100% based on recycled fiber. Prices for high-quality pulp substitutes follow the prices of virgin pulp, and are about half of the hardwood pulp price. Colored waste paper lots can be available for a price which is only one third of that for white pulp substitutes. Purchasing of colored waste paper lots can offer meaningful cost savings for a small-scale colored paper producer.

For colored paper production, the dyes and special color pigments may represent a cost nearly equal to the fiber costs. The dye costs can be reduced by purchasing colored waste paper.

The dryer steam consumption on an old, small-scale paper machine is estimated to be up to 6 tons of steam per ton of paper, which is 2 to 3 times that of more energy-efficient paper machines. Assuming natural gas-fired steam generation, this can translate into $120 - $150 fuel cost per ton of paper. Finding a lower cost steam supply than a natural gas-fired boiler can represent a significant cost saving potential for this type of a mill.

Electric power consumption in a small-scale specialty paper mill can be in order of 1 MWh per ton of paper, which is approximately twice the consumption on a per ton basis compared to larger mills. The electricity costs account for $50 - $60 per ton of paper, assuming all purchased power.

Mill labor costs, including operating and maintenance labor, are a significant expense at a small-scale mill. Assuming 40 operating and maintenance workers, and an annual output of 5,000 tons, the labor cost can be estimated to total over $300 per ton of paper. This can be five times more than in a larger-scale paper mill on a per ton basis.

Cost-competitiveness

Factors having a major impact on the cost-competitiveness of a paper producer include machine and mill scale, and the energy concept of the mill. Small-scale mills and machines inevitably have higher personnel and other fixed costs per ton of output than their larger-capacity competitors. Majority of smaller-scale, non-integrated mills in North America use natural gas as boiler fuel, and purchase all electric power, resulting in relatively high energy costs. At smaller-scale, old mills, the high energy costs are enhanced by relatively poor energy-efficiency and higher energy consumption on a per ton of paper basis than in larger-capacity units.

Due to its small scale, the Whiting paper mill is not cost-competitive in commodity paper making. Even among specialty paper producers, it is a high-cost producer because of its small scale.

In colored paper production and short production runs, however, a small scale of the paper machine becomes an advantage. Time required for color adjusting and possible machine clean-up is relatively long compared to the production run. The survival of the Whiting paper mill requires finding market niches, where the traditional economies-of-scale of papermaking do not prevail.

Environmental compliance

As a non-integrated, recycled fiber-based paper mill, the environmental load from the Whiting paper mill can be considered as rather limited.

Fiber raw material for papermaking is recycled paper. No bleaching chemicals are used in the production process.

Mill effluent is treated in a primary clarifier on site to reduce the solid material content of the effluent, before sending the effluent to the municipal waste water treatment plant.

Air emissions originate mainly from the boiler stack. Currently, 100% natural gas is used as boiler fuel, minimizing stack emissions. After outsourcing the steam supply from Menasha Utilities, the boiler stack emissions from the mill would be ceased.

Solid waste originates mainly from the screening and cleaning of recycled fiber raw material, and primary effluent clarification. Solid waste is disposed by a waste management company.

The mill is understood to operate within the limits of all permits and regulations, and no potential obstacles for environmental compliance are foreseen in the future.

1.1.3.3 Market assessment

Text & cover is a small specialty segment of uncoated freesheet, a large commodity paper grade. Text & cover superior paper qualities, such as finishes and colors, afford it a higher price premium over uncoated freesheet. A price premium for text & cover is expected to continue. Text & cover customers have become more sensitive to pricing causing premium and midrange brands to lose share to economy alternatives within text & cover.

Driving forces

The text & cover market is driven by advertising and direct mail. Differentiation through advertising products is the main reason to choose text and cover grades. This differentiation leads to trends in product characteristics. Text & cover producers need to be able to quickly respond to changing preferences and raise product awareness through marketing and advertising.

Changes in printing methods have also contributed to reduced usage of text & cover. Premium offset and digital printing paper are taking market share and can simulate premium surface. In reaction to printing shifts, major text & cover producers have developed products for the digital market.

The colored portion of the text & cover market is declining more rapidly than the white portion. An increase in color printing has played a role in driving down the colored papers share of the text & cover market.

Development of demand

Overall US demand for text & cover is expected to decline at a rate of 2.6%/a over the next five years. The market is estimated at 295,000 st in 2005 and expected to decline to around 260,000 st in 2010.

The text & cover market represents a wide variety of products. The text portion of this market is a lighter weight product. The cover product is a companion grade to the text product; it comes in the same colors and finishes, but heavier weight. This product can be white, but also comes in a wide variety of colors ranging in hue from light pastels to vibrant, deep colors. Text & cover comes in a range of finishes, including linen, laid, and felt. Text & cover markets are style driven resulting in quick shifts in demand for new products.

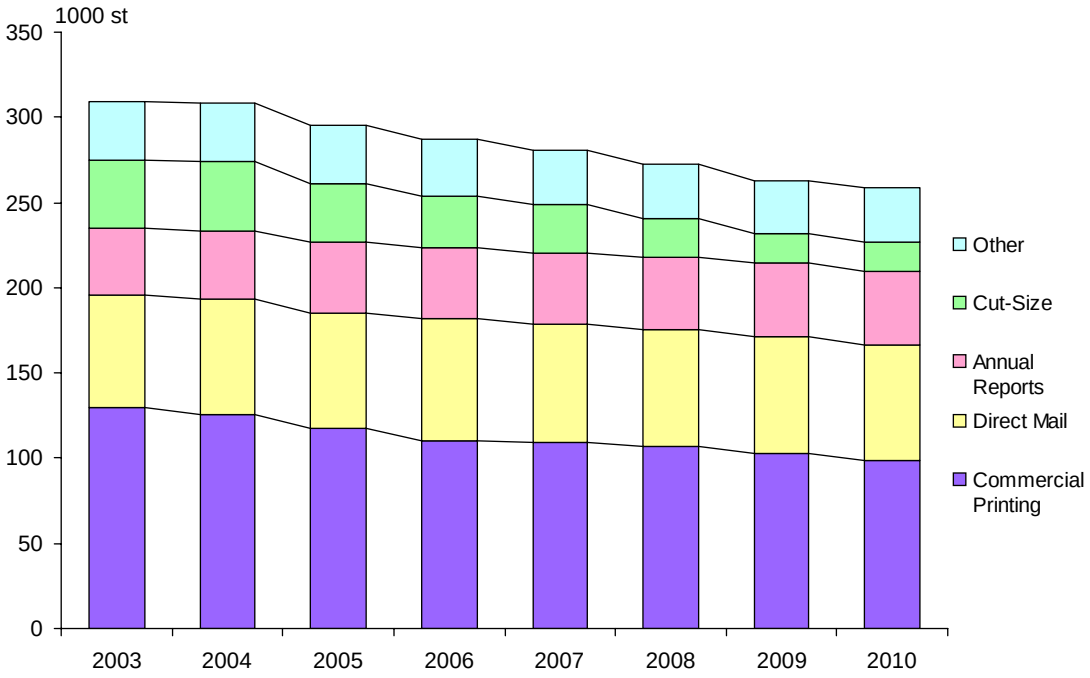
Text & cover products can be further segmented into standard and premium products, which can be further divided into white and color products. The volume of the market is standard white text & cover products. The premium and color portions of the market have been declining more rapidly.

Key end use markets

Text & cover is used in applications where the paper is used as a differentiating factor. An example of this is marketing materials, where an advertiser would want their materials to look different from other companies' marketing materials. There are two key markets for text & cover products, commercial printing and direct mail.

Figure 19

Text & cover demand by end use



Commercial printing, the largest end use of text & cover, is a fairly fragmented market. This market is expected to decline at a rate of 3.3%/a, decreasing share of text & cover market from 40% to 38%. Direct mail will be decreasing 0.2% over the next 5 years with its share of the text & cover market increasing from 23% to 26% as the demand for this grade declines overall.

The other segment represents a variety of different markets including, greeting cards, catalogs, and converted paper products. This segment is declining at just under 2%/a. This market is approximately 34,000 st and is expected to decline to 31,000 st by 2010.

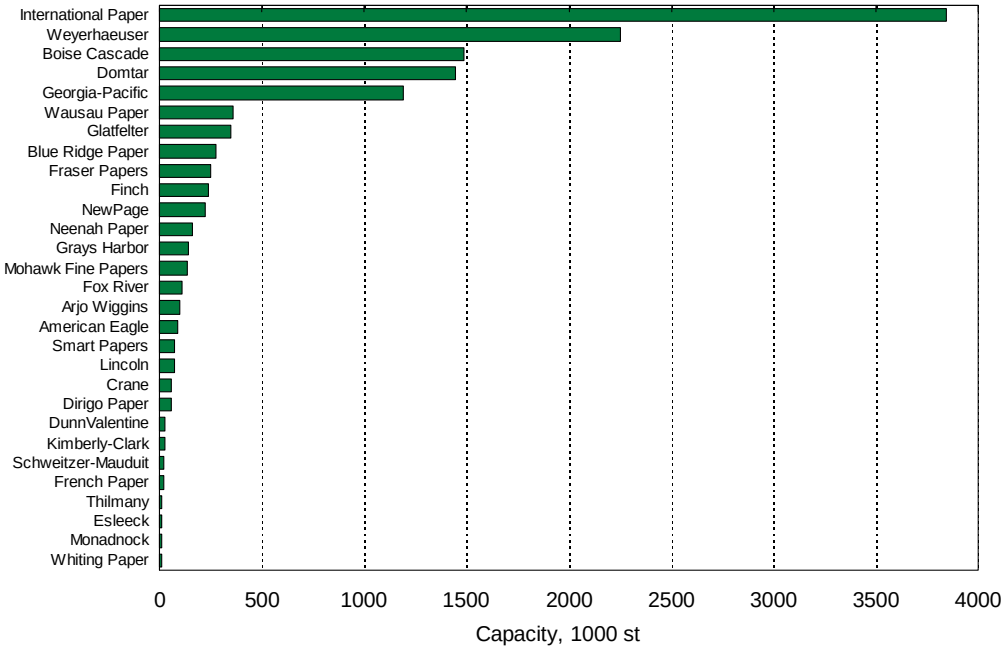
Whiting participates in this other segment, having found a niche producing recycled-based colored products. These products, as discussed before, are mats for framing, decorative papers for boxes and arts & crafts papers. Based on the quality levels these products receive standard text & cover pricing to high end specialty pricing, which can be several times higher.

Competitive environment

International Paper has the largest uncoated freesheet production capacity in North America with around 30% of total capacity. Top five companies represent 78 % of the total uncoated freesheet production volume, but a majority of this volume is allocated to commodity grades. Smaller players have positioned themselves to serve niches.

Figure 20

Top producers of uncoated freesheet



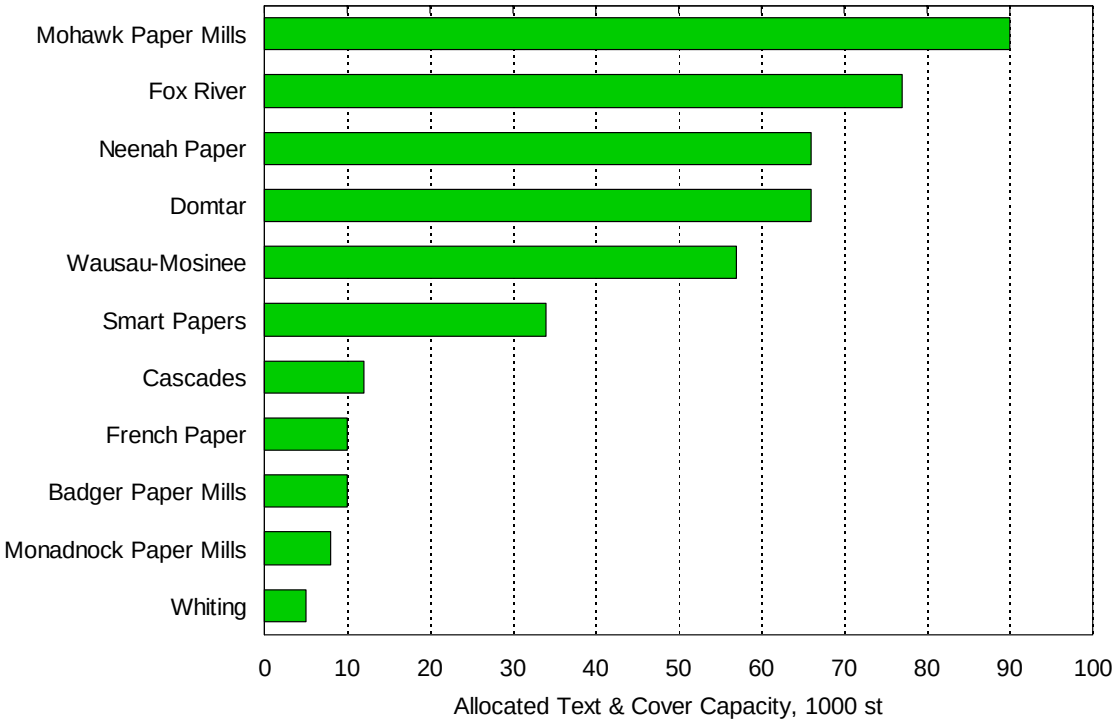
* Includes commodity UFS, UFS specialities, lightweight UFS, and UFS board.

Whiting is ranked 29th in capacity and has less than 1% of the uncoated freesheet market.

Top five companies represent 81 % of the total text & cover production volume. Top producers of text & cover have a wide variety of products and brands.

Figure 21

Top producers of text & cover



The top text & cover producers have several key brands and are constantly launching new offerings to the market to keep interest in their products and keep their company at the front of buyers' minds.

Whiting is a relatively small producer of text & cover papers in the US with 1% production capacity. Although Whiting does have commercial printing brands, their core business is in more specialized text & cover products.

Whiting's key commercial printing brands include:

- Brockway, Brockway Plus: felt
- Cadence: embossed, parchment
- Coat-of-Arms, Coat-of-Arms Cover: embossed, vellum, leather embossed
- Crestline: embossed, vellum
- Polar White Bristol
- Closed Loop
- Ultima

Changes in supply

The text & cover market structure has been changing rapidly over the last few years. Industry consolidation helps manage market conditions by keeping supply more in-line with demand.

Table 5
Changes in industry structure

Current Company	Former Company	Transaction Details	Timing
Fox River	Mead (Gilbert Paper)	Fox River acquired Gilbert Paper from Mead	11/2001
Wausau	Missota Paper	Wausau purchased Missota Paper	10/2004
Neenah Papers	Kimberly-Clark	Kimberly-Clark spun-off Neenah Papers business	11/2004
Mohawk	International Paper	Mohawk purchased International Paper's text and cover business	12/2004
Smart Papers	Fraser Papers	Smart Papers acquired Fraser's text & cover business	1/2005

Recently, Smart Papers has entered into Chapter 11 and announced that they are permanently closing their Park Falls, WI pulp and paper mill.

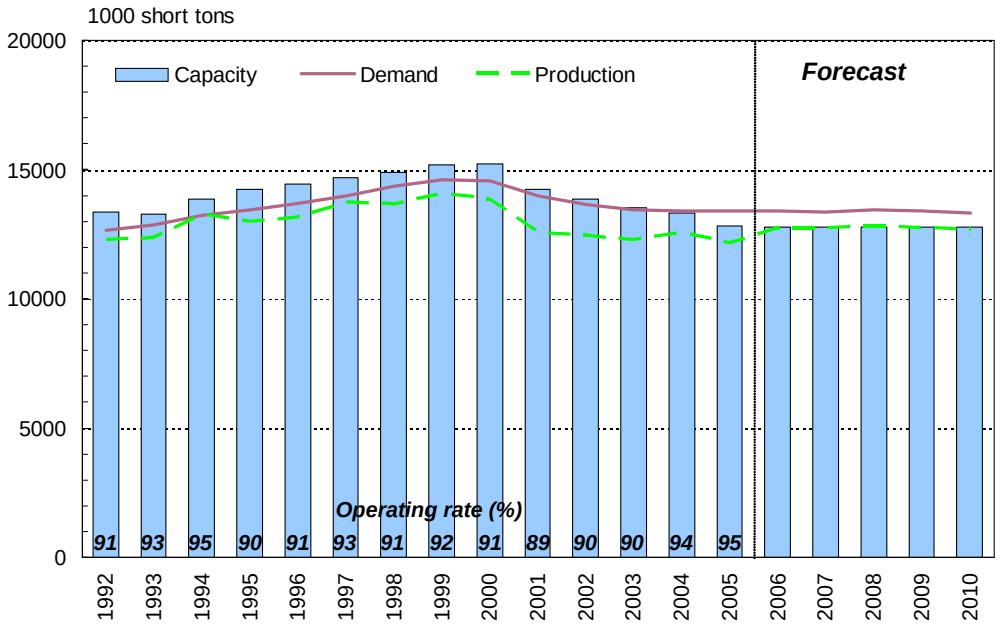
There have been multiple PMs/mills that have taken market-related down time to adjust for changing market conditions. Further decline in market demand will force more capacity reductions.

Supply/demand balance

Text & cover market represents only a small portion (2%) of the uncoated freesheet market. The uncoated freesheet market has been declining over the past few years. Although the market will continue to decline it will do so at lower rate of change**.**

Figure 22

Uncoated freesheet demand/supply balance

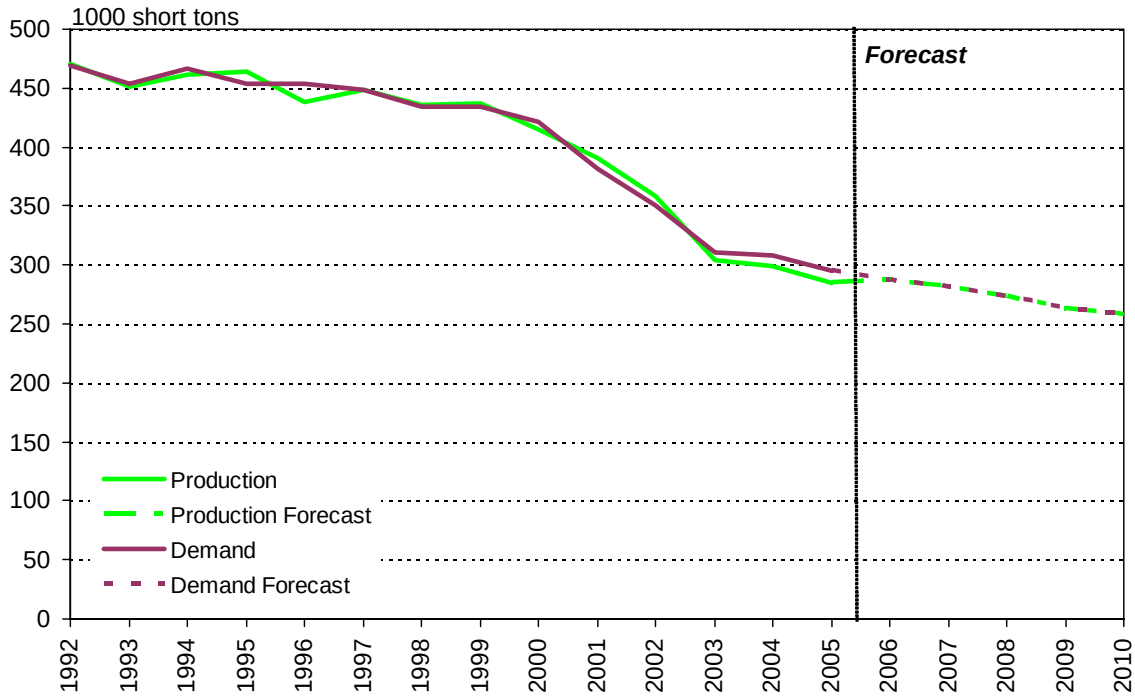


* Includes commodity UFS, UFS specialities, lightweight UFS, and UFS board.

Uncoated freesheet operating rates are expected to grow slightly due to capacity reductions.

Figure 23

Text & cover demand/supply balance



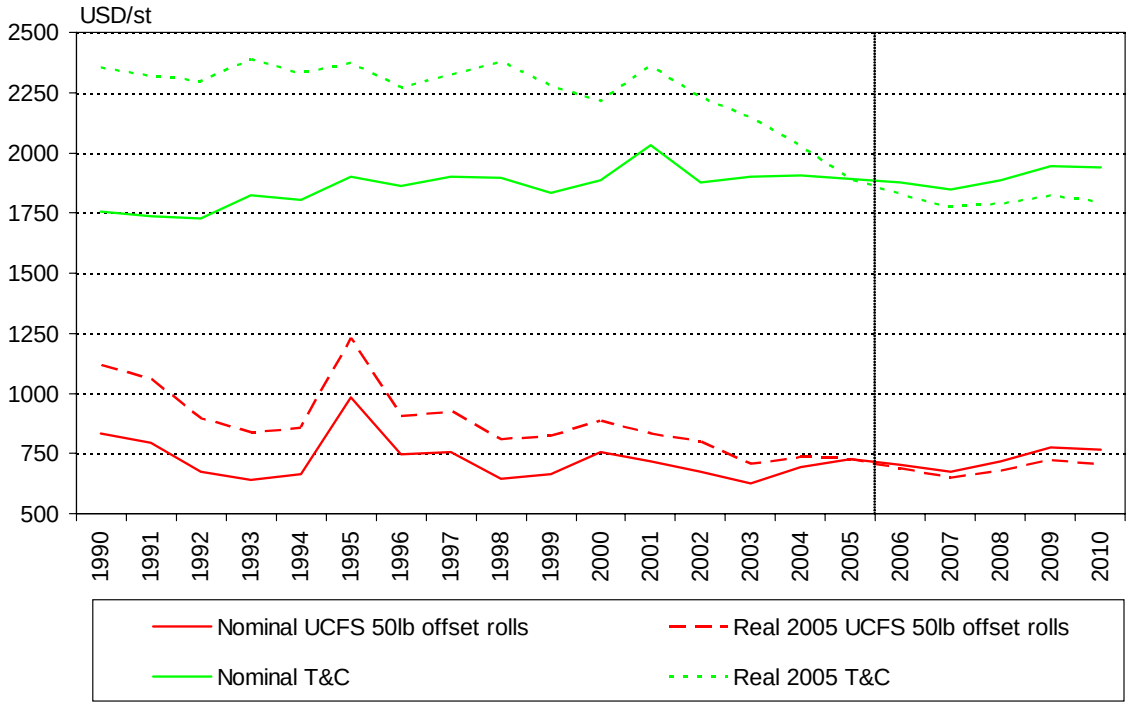
Text & cover demand is forecasted to decline at a rate of 2.6%/a, a slower rate than the past few years (declining 7%/a over the period 2000-2005). This slower rate of decline is due to improved economic conditions and slower substitution to other paper grades. Text & cover market will continue to be over supplied, even though there have been significant capacity reductions, because paper machines supplying this market are producing additional grades.

Product prices, historical and forecast

Future trend pricing of text & cover pricing and uncoated freesheet are expected to be flat to declining in real terms. Text & cover grades are expected to maintain their premium over commodity uncoated freesheet.

Figure 24

Uncoated freesheet and text & cover pricing



1.1.3.4 Financial performance

Information of the financial performance of George A. Whiting Paper Company was not disclosed.

Prices of specialty papers can vary in a wide range from $1,000 per ton to over $10,000 per ton, depending on the product specifications and order size. The average price of the product mix of the Whiting mill is approximately $2,000 per ton, or slightly over.

Assuming an annual saleable capacity in order of 5,000 t/a, the company's annual sales are estimated to be in order of $10 million.

Information on profit margins was not disclosed, but the company was understood to operate profitably, although not with generous profit margins.

As a small producer of special products, profitability can be expected to be sensitive to changes in revenue stream due to demand volume, sales mix and pricing, as well as efficiently managing the operations and costs.

1.1.3.5 Overall viability and risk factors

As a summary, the viability of the operations of George A. Whiting's paper mill is supported by the following factors:

– George A. Whiting Paper Company is a recognized supplier with strong client relations in selected special product segments.

– It is a family-owned company established over 120 years ago, and run by the fourth and fifth generation of the owners. The family is committed to continuing the business.

– The mill has found special product niches, especially colored papers produced in short production runs, for which a small scale of operations is an advantage, contrary to a common wisdom in the paper industry.

– Despite the age of the mill and its equipment, selected smaller-scale improvement investments have been carried out, such as rebuilding the wet-end of the paper machine in 1999.

– In 2005, a state-of-the-art color measurement and control system was installed, which is an essential tool for color adjustment and stabilization for colored paper production in short runs. Efficiently managing the grade and color changes is a key factor for profitable operations in this type of industry.

– The company has developed special talent in managing the pricing and costs of production in very small production runs. Accepting small customized orders opens a unique market niche.

– Prices of specialty paper vary in a wide range. The ability to focus on high-priced specialty products may offer an opportunity for attractive margins despite high costs of production.

The following risk factors can be recognized:

– Most of the mill equipment is old. Due to the small scale of the company, possibilities for modernization investments are limited, and most investments in heavy machinery are based on acquiring second-hand equipment.

– The paper machine is one of the smallest in the industry, resulting in elevated personnel and other fixed costs per ton of output. The machine is not competitive in commodity or even semi-specialty paper production, but requires high-priced specialty products to cover its costs.

– Due to the age and scale of the paper machine, also the energy costs are high on a per ton of output basis.

– The mill's old structure and limited space complicate the internal material transfers at the mill.

– As a small player, profit margins of the operations are presumably sensitive to various disturbances in demand, pricing, or operations.

1.2 Potential Clients

1.2.1 SCA

1.2.1.1 Corporate background

SCA profile

SCA is a global USD 12.2 billion company with 3 key business areas: tissue, packaging, and forest products. Tissue represents 50% of total sales. In North America, paper production is focused on tissue products with 5 US mills (Alsip, IL; Barton, AL; Flagstaff, AZ; Menasha, WI; South Glen Falls, NY) with a total of 0.5 million tons of capacity. SCA converts tissue at their 5 converting facilities. SCA focuses only on the AFH in North America offering towel, toilet, napkin and facial products. SCA is one of the three largest producers of AFH tissue products in North America with an estimate market share of 24%.

SCA's Menasha, WI mill is one of their two mid-west mills. The Menasha, WI mill has de-inked pulp production capability of almost 200,000 tons/a and 5 paper machines (PMs) producing 225,000 tons/a of tissue for the AFH market. This facility produces mainly recycled products.

Key tissue product from this mill is napkin stock as well as some towel and facial tissue stock which can be converted into a variety of tissue products including napkins (bulk, dispenser, packaged, boxed, printed cocktail, luncheon and dinner), plain and printed tray covers, table cover, and place mats; one-and two-ply bathroom tissue; single-fold, c-fold, multi-fold and roll towels; facial tissue, windshield towels, and disposable wipes.

SCA owns a major paper converting mill in Neenah, WI with a capacity of 290,000 short tons, with 88 lines of production. This plant converts tissue paper to napkins and rolls of toilet paper.

Recently SCA has invested USD 5 million at their WI facilities in 2005 with more upgrades expected this year.

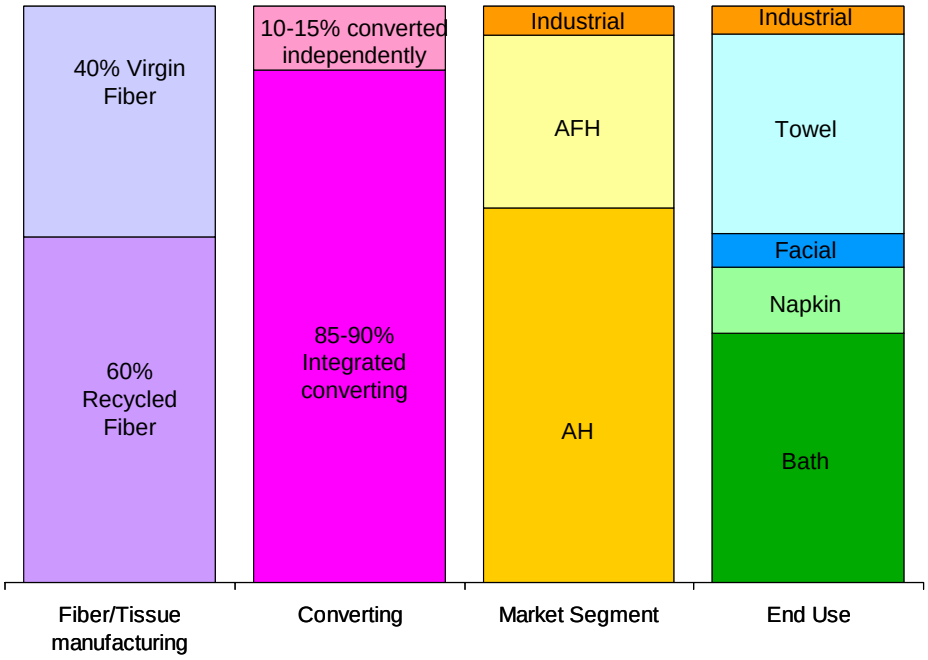
1.2.1.2 Market assessment

The tissue market is a growth market. Tissue products can be virgin or recycled-based. Typically, tissue products that are made for home use are made with virgin fiber and tissue products destined for the commercial or industrial market are recycled based. Paper companies produce industrial-sized parent rolls of tissue which can be converted by the paper company or sold on the open market to independent tissue converters. Around 90% of tissue produced is converted internally.

Key tissue markets are the At Home (AH) market, the Away-From-Home (AFH) market and the industrial market (mostly wipes). Key tissue products are toilet, towel, napkin and facial as well as some wipes for the industrial market.

Figure 25

Tissue market 2004



Driving forces

There are a wide variety of factors that affect consumption of tissue products. In the consumer tissue market, key drivers for tissue consumption are income level and population growth and age distribution. Income level determines how much tissue you buy and what tissue products you purchase. Typically, the higher the income level the more disposable tissue products are purchased and more varieties of tissue products are purchased. Facial tissue are one of the tissue products that is most affected by economic environment. As the population of an area grows, so will the consumption of tissue products. As the population ages, the consumption of tissue products will also increase.

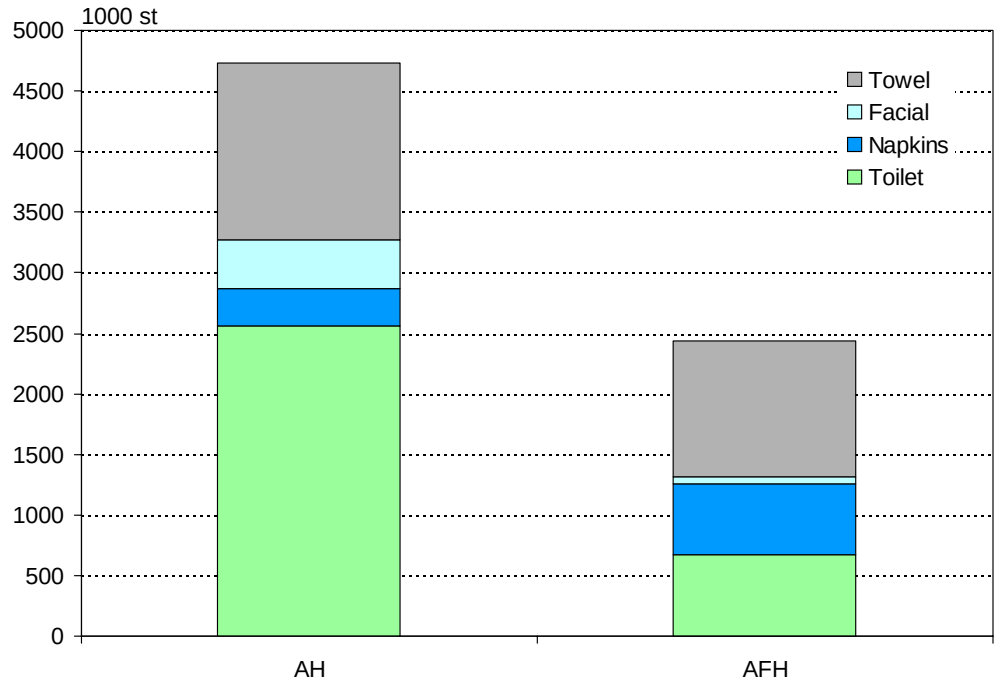
In terms of AFH tissue, key drivers include the health of business area and tourism. Areas with more hotels, restaurant, offices, etc. will have larger demand for AFH tissue products.

Key end use markets

The tissue market is segmented in two main ways by product type and by type of consumption. Key products types are: towels, bath tissue, napkins, and facial tissue. These products can be consumed at home (AH) or away-from-home (AFH). At home tissue products are used for personal consumption. Away-from-home products are consumed in a commercial or industrial environment. This, for example, would include restaurants, hotels, offices, industrial complexes.

Figure 26

Tissue market segmentation 2004



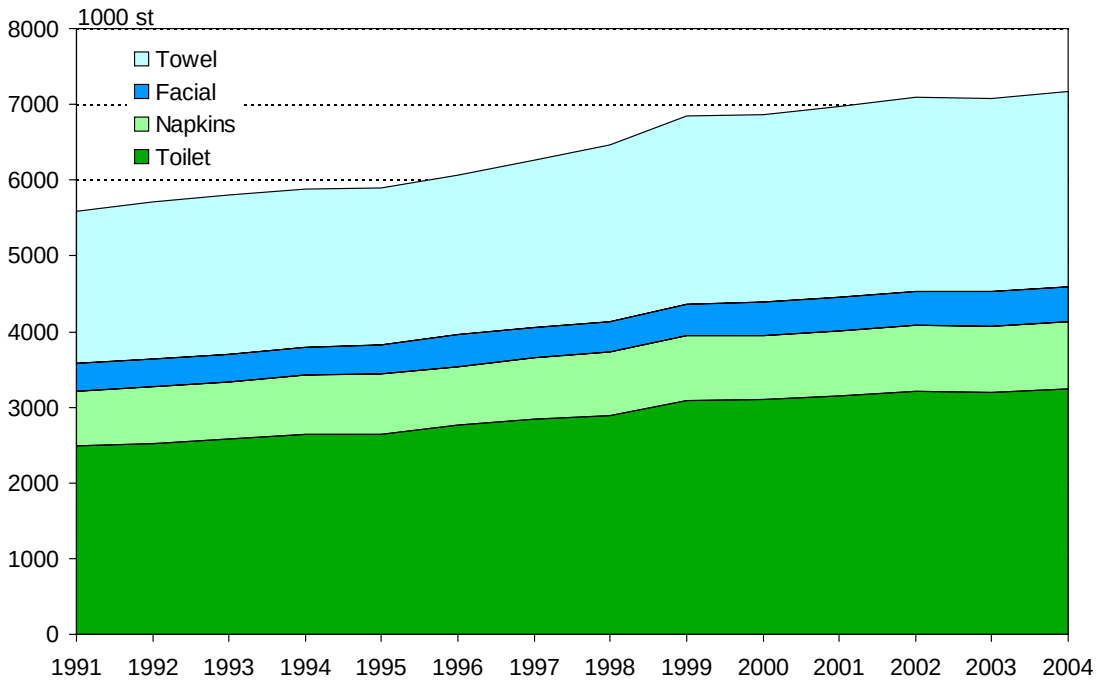
The AH market is approximately 4.7 million short tons. Toilet paper is the largest portion of this market, followed by towel. The AFH market represents 2.4 million short tons and is comprised mainly of towel, toilet tissue, and napkin.

Development of demand

The US tissue market is over 7.2 million short tons. US tissue demand has been increasing at 1.7%/a over the last 10 years. Towels and toilet tissue are among the largest segments.

Figure 27

US Tissue Demand Development

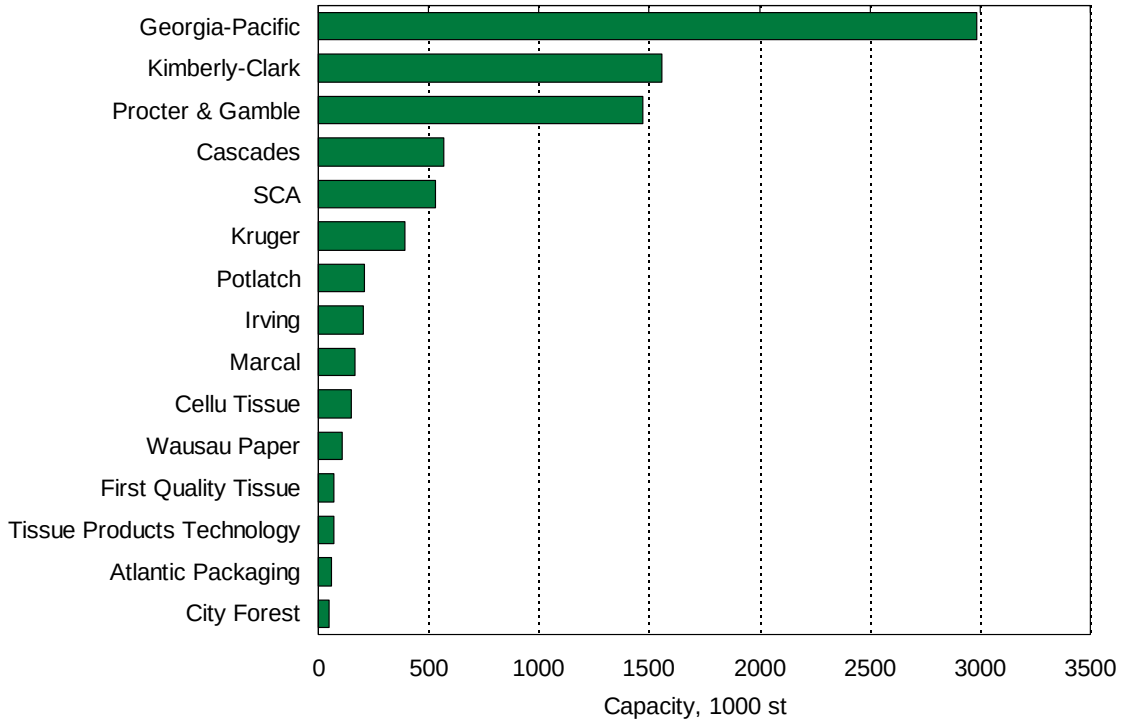


Competitive environment

The top 5 producers account for around 80% of the market. Georgia-Pacific is by far the largest producer of tissue in North America with nearly twice the capacity of the nearest competitor.

Figure 28

Tissue top producers 2006



SCA is the fifth largest tissue producer in North America with 6% of tissue capacity.

Changes in supply

There are many announcements of additional capacity coming on-line in the next few years. However, not all of these projects will materialize.

Table 6
Capacity changes

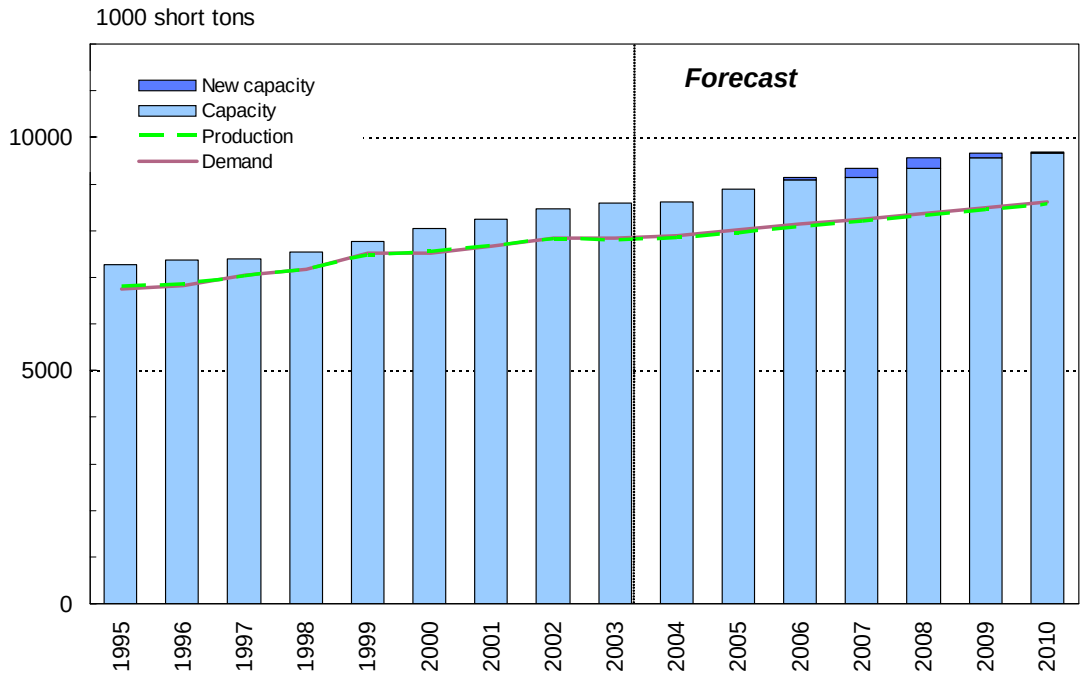
Company	Mill location	State	Capacity change 1000 t	Description
2004				
Cascades Tissue	Mechanicville	NY	9.0	Capacity expansion
Cascades Tissue	Memphis	TN	36.0	Restart
Georgia-Pacific	Clatskanie	OR	73.0	New PM
Georgia-Pacific	Plattsburgh	NY	-15.0	Shut down
Georgia-Pacific	Zachary	LA	9.0	Capacity expansion
K.T.G. (USA) LP (Kruger)	Memphis	TN	20.0	Restart
Potlatch Corp.	Las Vegas	NV	27.0	New PM
Procter & Gamble	Cape Girardeau	MO	73.0	New PM
SCA Tissue	Barton	AL	100.0	New PM
SCA Tissue	Gary	IN	-29.0	Shut down
2005				
Atlantic Paper & Foil	Winchester	NH	4.0	Rebuild
Augusta Tissue	Augusta	GA	30.0	New PM
First Quality Tissue	Lock Haven	PA	63.0	New PM
Unicell Paper Mills	Brownstown	IN	30.0	New PM
Georgia-Pacific	Green Bay	WI	160.0	Shut down
2006				
Cellynne Paper	Haines City	FL	45.0	New PM
Laurel Hill Paper	Cordova	NC	30.0	New PM
Lincoln Paper and Tissue	Lincoln	ME	36.0	New PM
Orchids Paper Products	Pryor	OK	30.0	New PM
2007				
Orchids Paper Products	Pryor	OK	-6.0	Shut down
Orchids Paper Products	Pryor	OK	-8.0	Shut down
Procter & Gamble	Green Bay	WI	65.0	New PM

Supply/demand balance

The overall USA tissue market will remain relatively in balance. Tissue demand (1.5%/a) will grow slower than GDP.

Figure 29

NA tissue supply/demand balance



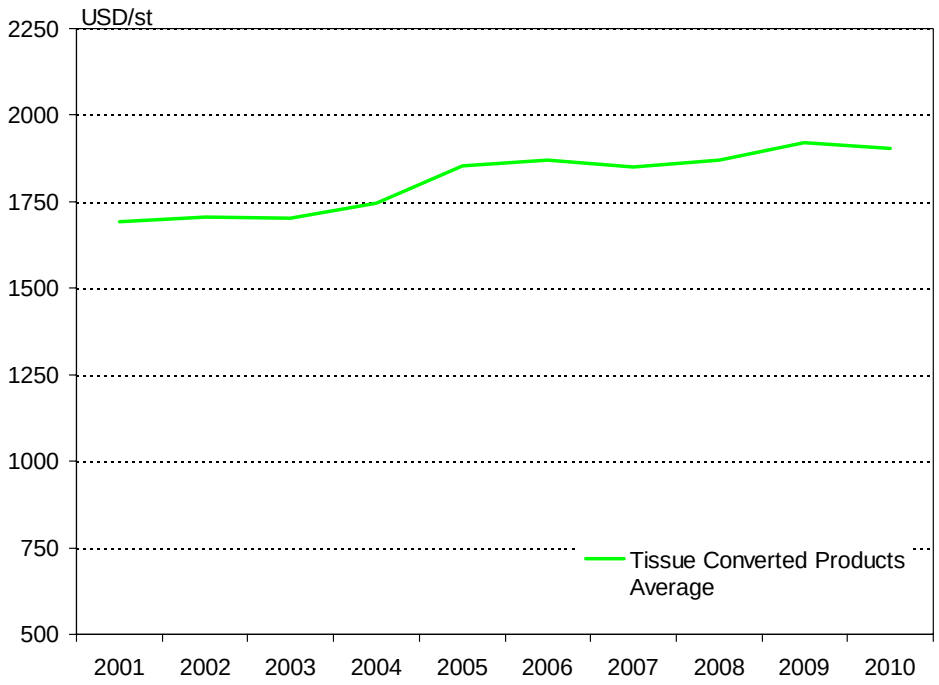
There is little trade of tissue and tissue products so production will closely match demand.

Product prices, historical and forecast

Recently, tissue prices have increased as a result of cost pressure and tightening markets. Tissue pricing is expected to increase around 50 USD/st over the next five years.

Figure 30

Converted tissue weighted average pricing



2 ASSESSMENT OF ENERGY RISK

The operating revenues of Menasha Utilities (MU) are derived from the following:

- Steam sales to Sonoco, Whiting and Alcan Packaging through Steam Supply Agreements (SSA); and
- Electrical energy sales to MISO markets through Power Sales Agreement (PSA) between MU and WPPI.

In addition to the above income streams, MU plans to use power generated by the new turbine #5 to off-set import of power, thereby reducing overall costs.

MU's relationships with its customers are defined by the provisions of steam and power sale agreements the company has negotiated with the individual customers. The following describes the agreements and outlines the key contractual elements that will play a key role in defining the long-term financial position of Menasha Utilities.

2.1 Steam Supply Agreements

The SSA contracts with the individual companies are fundamentally similar in structure and in many of the key contractual provisions. However, there are some important differences. The Sonoco SSA contract is reviewed in more detail, with any differences in the provisions of the other two SSAs highlighted.

2.1.1 Sonoco SSA

The assessment of the contract is based on the review of the following documents:

- Steam Supply Agreement signed on October 22nd, 2004, ("original agreement")
- Revised Appendix A (dated 09/08/05)
- Second Amendment to Steam Supply Agreement (Signed on March 2006). ("second amendment")
- Email on the unanticipated coal price increase and agreed 2006 and 2007 interim arrangements as detailed in appendix 1 to this document.

The review is based solely on the above documents and the Pöyry analysis explicitly assumes that no other contracts or amendments have been agreed upon.

The following reviews the technical provisions of the SSA contracts. The review addresses the key provisions of the contracts covering:

- Term
- Termination
- Nomination and Supply

- Quality
- Reliability
- Price
- Changes in Law

Term

The second amendment changed the start and end dates of the contract. The Commercial Operation Date (COD) of the plant was changed to June 30th, 2006 and the term was extended from 15 years to 20 years, ending on June 30th, 2026.

Termination

The contract may be terminated if triggered by one or more of the following events:

- Delay in COD
- The cost of steam from MU exceeds the steam production costs of running Sonoco's leased gas-fired boiler(s) to produce the steam. The relative economics of Sonoco buying steam versus producing steam will vary with the relative costs of coal and natural gas. In Q4 2006, with coal priced at $40.41 per (short) ton Sonoco could produce steam at a competitive price if natural gas prices were at or below approximately $**5.8-6.0/MMBtu**. Consequently, at any time the cost of gas-fired steam generation defines the ceiling price for steam under this SSA.
- Gross negligence by Buyer or Seller
- Force Majeure
- Breach of Agreement

Nomination and Supply

Despite MU being the sole (purchased) steam supplier for Sonoco, there exists a major risk of a reduction in MU's revenues if Sonoco decides to reduce its purchases of steam. This risk is not mitigated by provisions of the SSA.

Each year Sonoco is required to nominate the minimum annual quantity and Steam Generating Capacity requirements to be purchased from MU that year. However, there is no "take or pay" clause and Sonoco has the right to reduce its nominated requirements annually. Furthermore, if actual steam consumed by Sonoco in any given year is below the nominated minimum annual quantity, the SSA imposes no penalties on Sonoco. Under these circumstances the only action MU can take is to terminate the contract. Given the importance of the steam sales to the overall performance of the company, termination appears unlikely.

Starting values for the annual quantity and steam generating capacity are 750 000 klb/a and 140 klb/h respectively. Appendix C of the SSA limits MU's steam supply to 140 klbs/h.

Quality

The quality requirements for steam and condensate are set forth in Appendix C of the Agreement. In our review of this document values that are irrelevant for the agreement purposes were specified, while the values for steam pressure and temperature variation ranges (± x psi, ± y F) during normal and transient load conditions were not included. Pöyry recommends that the SSA be amended to specify appropriate values. This would prevent possible disputes over steam quality that could be used as a pretext for a breach of contract claim.

Reliability

There are no penalties in the SSA if MU is unable to produce adequate steam to meet Sonoco's nominated requirements. However, during scheduled and unscheduled maintenance MU is required to meet Sonoco's requirements by operating the natural gas boiler at the Sonoco site.

Price

The price of steam is divided into three components:

- Operations and maintenance charge (OMC) - is a charge to cover Sonoco's share of these costs
- Capital recovery charge (CRC) – this charge compensates MU for the additional capital expended to modify the facility to be able to burn PRB coal
- Fuel charge (FC) – is a charge linked to MU's fuel costs.

MU's fuel costs and a small (20%) proportion of operations and maintenance costs are variable costs driven by the quantity of steam purchased. These costs are covered by charges to Sonoco, and consequently MU's operating margin is not reduced if the volume of steam supplied were to decrease. In contrast, approximately 80 % of MU's operations and maintenance costs, and all the incremental capital costs are fixed irrespective of the quantity of steam sold to Sonoco. Therefore, MU's gross operating margin will be reduced in the event the steam supply to Sonoco is reduced because the amount chargeable to Sonoco would decrease while the fixed costs MU has to pay will not.

The following sets out the starting charges and provisions for variations over time for each of the above steam price components. These were re-negotiated as part of the Second Amendment. The combination of the three price elements described above gives the Steam

Sales Charge (SSC). This charge and the basis for adjustments to the FC and OMC charges are as set out below:

Period		Revised Initial	Jun 30 '06 Dec 31 '06	Jan 1 '07 Dec 31 '07	Jan 1 '08 end Term
OMC	$/klbs	2.64	NA	NA	2.64
CRC	$/klbs	0.80	NA	NA	0.80
FC	$/klbs	3.44	NA	NA	3.44
SSC	$/klbs	6.88	6.20	7.27	6.88
Adjustments			No	FC+OMC	FC+OMC

The revised initial SSC breakdown is the baseline steam charge that MU is going to adopt, except in 2006 and 2007 when special rates will be applied. This special situation is as described in Appendix.

The FC and OMC are adjusted annually. The FC will be adjusted to reflect changes in the overall fuel costs to MU. Generally, the past 12 months' average fuel cost per mmBTu will be adopted to change the steam price for the subsequent contract year. The OMC is adjusted based on CPI and labor rate escalation.

The significant increase in coal price starting on January 1st 2006 (see coal contract review), has required an unforeseen modification of the existing contract between MU and Sonoco. Both parties have agreed that the steam price will be adjusted according to the new coal price as of January 2007, and not be based on the 12 months average historical price. Detailed confirmation of this agreement or amendment to the existing contract is not available. However, Pöyry was provided with a short E-mail from Sonoco agreeing to the calculations below:

Old Fuel Cost per $3.44/1000# steam, based on $40.41/ton

New Fuel Cost per $5.74/1000# steam, based on $67.52/ton

Revised Appendix A, item B.iii (example calculation)

FC = $3.44/1000# x ($3.84/$2.30 mmBtu) = $5.74/1000# Therefore the change

in FC = $5.74-$3.44= $2.30.

A summary of the reference e-mail can be found in Appendix 1.

FC is designed as pass-though costs thus the initial $3.44/1000# should cover the fuel costs and assume some part of the variable costs. If the coal price is, as per coal contract, $40.41 per ton, the FC is adequate to cover fuel costs. To avoid misunderstanding, the contract should, however, clearly state what the initial benchmark fuel price ($/MMBtu) is.

Changes in Law

Section 10 of the SSA sets out Sonoco's pro rata share of any costs associated with works required in the event a Change of Law forces MU to invest in the facility. For example, new environmental regulations may necessitate new equipment to further reduce emissions.

Sonoco will be charged on a pro-rata basis according to its share of MU's overall generating capacity. However, the overall steam generating capacity of the facility has not been defined in the contract.

Furthermore, the additional investment may be so high that the initial base price combined with these incremental charges could lift the steam price above the generating costs for Sonoco's gas boiler, thereby giving Sonoco the right to terminate the contract as set above

In conclusion, the SSA with Sonoco provides a framework for the ongoing steam sales relationship between both companies. There remain some loose ends to be resolved, for example the overall steam generating capacity of the facility, the benchmark coal price and steam quality parameters.

Of more concern is MU's unmitigated exposure in the event Sonoco elects to reduce its purchases of steam. The key decisions to change the volume purchased lie with Sonoco, with no penalties as described in the SSA. Likewise, Sonoco has no downside risk as the worst case is a return to generating its own steam via its gas-fired boiler. This latter option also imposes an effective price cap on the coal-fired steam.

The following sections compare the provisions in the Alcan and George A. Whiting Paper Company SSAs against the Sonoco SSA as described above.

2.1.2 Alcan

The review of the technical aspects of the SSA contract is based solely on the SSA signed on June 21st 2006, and Pöyry has assumed that no other contracts or amendments have been executed by the two parties

The revenues from this SSA are dependent on the quantity of steam supplied. As with the Sonoco SSA, MU is being named as the sole steam supplier for Alcan. However, Alcan's steam consumption may be reduced for various reasons, and this would have an adverse affect on revenues.

Term

The Commercial Operation Date (COD) is left completely open i.e. the 20 year term starts when MU starts supplying steam.

Termination

The contract may be terminated for the following reasons:

- Purchaser halts operation for 90 consecutive days
- Severe damage or destruction of Menasha power plant
- Breach of Agreement

The agreement nominates MU as the sole supplier of steam, and only allows Alcan to start producing steam if that company's steam consumption requirements increase significantly.

Nomination and Supply

Each year, Alcan will nominate the minimum annual quantity and Steam Generating Capacity requirements that it will purchase from MU. The minimum 40,600 klb/a steam off-take is set forth in Appendix G. There is no "take or pay" clause for the supply and Alcan may reduce the nomination annually as they see appropriate. No penalties are triggered if Alcan fails to take its nominated quantity. Under these circumstances, MU could terminate the contract.

Quality

Same comments apply as for the Sonoco SSA. In addition, the Maximum Winter Peak steam supply has been left blank, i.e. there is no maximum contractual limit in the supply.

Reliability

There are no penalties in the SSA for non-availability. Procedures during scheduled and unscheduled maintenance are unknown, except that Units #3 and #4 shall not be maintained simultaneously.

Price

The pricing, price components and price adjustments are identical to those of the Sonoco Agreement, with the exception that the new steam price will be based on the new coal price and not the prior 12 months average price.

Changes in Law

Same as for Sonoco SSA.

2.1.3 George A. Whiting Paper Company

The review of the technical aspects of the SSA contract is based on review of the following documents:

- Steam Supply Agreement signed on October 20th 2004
- Second Amendment to Steam Supply Agreement Revised April 20th 2006

The review is based solely on these Agreements and it is assumed that no other contracts or amendments have been executed by the two parties.

The major risk in reduction of revenues (as with Sonoco and Alcan) is through reductions in the quantity of steam supplied. Although Menasha is the sole supplier for Whiting, that company's consumption may for various reasons be reduced in the future. As for Sonoco, this company will retain its own capability to produce steam and can opt out of the supply

agreement in the event gas-fired steam is cheaper to produce than MU steam prices. This effectively creates a price ceiling for this contract.

Term

The Second Amendment to this SSA nominated the COD as July 31st 2006 and the term was extended from 15 years to 20 years expiring July 30th 2026.

Termination

The contract may be terminated for the following reasons:

- Menasha's failure to deliver steam as specified in the contract
- Purchaser halts operation for 60 consecutive days
- Bankruptcy of MU or Whiting
- Severe damage or destruction of MU power plant
- Breach of Agreement
- The cost of steam from MU exceeds the steam production costs of running Whiting's own (or actually leased) gas-fired boiler(s) to produce the steam.

The SSA conditions are very similar to those in the Alcan agreement, with the inclusion of a provision to terminate the agreement in the event the steam price exceeds the company's in-house steam generation costs.

Nomination and Supply

Whiting will annually nominate the minimum annual quantity and Steam Generating Capacity requirements that it shall purchase from MU. The minimum 58,000 klb/a steam off-take is set forth in Appendix G.

As with Sonoco and Alcan, there is no "take or pay" clause for the supply and Whiting may reduce the annual nomination as they see appropriate. Also no penalties are set if Whiting takes less than the nominated minimum annual quantity.

Quality

The quality requirements for steam and condensate are set forth in Appendix C of the Agreement. The Appendix C appears to be slightly incomplete.

The Maximum Peak steam supply has been set to 12,000 lb/hr.

Reliability

There are no penalties in the Agreement for non-availability from MU. Procedures during scheduled and unscheduled maintenance are unknown, except that Units #3 and #4 shall not be maintained simultaneously.

Price

The pricing, price components and price adjustments are identical to those of Alcan Agreement.

Changes in Law

Section 10 sets forth the share of costs if a Change of Law was to increase MU's steam production costs (e.g. compliance with new environmental regulations). Under the terms specified, Whiting and Menasha will pay an equal share of the additional costs, provided, however, that the steam sales charges do not exceed the cost of steam generated by Whiting.

This differs from the relevant provisions in the other SSAs because it does not specify a pro rata basis for cost sharing to take into account Whiting's consumption versus the total generating steam generating capacity of the facility.

2.2 Power Sales Agreement

The Master Power Purchase and Sale Agreement (PSA) has been executed by WPPI and MU, and covers purchase and sales of surplus electric power from turbines #3 and #4.

The following evaluation of the technical aspects of the PSA contract is based on Pöyry's review of the following documents:

- Master Power Purchase and Sale Agreement signed on November 7th 2005,
- Amended Confirmation sheet, signed on February 23rd 2006

The review is based solely on those documents and it is assumed that no other contracts or amendments are applicable..

MU plans to sell the power generated by existing units #3 and #4 through the PSA signed between MU and WPPI. The power generated by the new turbine #5 will be used to offset current demand from MU's operations and is not part of the WPPI PSA. During a phone conversation with MU and WPPI, the specific arrangements, consumers and value of the turbine #5 power output were described as follow:

MU sets the price of the power generated from turbine #5 based on the avoided cost of purchased power combined with the fuel cost allocated to the power generation from that turbine (defined as Public Service Commission – Account 501). In other words, "MU

Steam" is able to recover from "MU Electric" the full cost of providing that power plus the cost of additional energy related to the operating conditions of the unit.

Term

The Agreement commenced on November 1st 2005, and the 20 year term will end on October 31st 2025.

Termination

The Master Power Purchase and Sale Agreement set termination rights that only required 30 days advance notice by either party. However, the amended Confirmation sheet only allows termination due to breach of contract by the other party. When questioned as part of the due diligence undertaken to prepare this report, WPPI confirmed that the Amended Confirmation sheet supersedes the Master Power Purchase and Sale Agreement and consequently the 30-day termination clause is no longer valid.

Nomination and Supply

The contract is a non-firm contract, i.e. an energy-only contract without firm power output obligations. WPPI transfers all excess energy (up to 24 MW) generated by MU to the MISO Market when MU is running units #3 and #4. The former limit of 8 MW set forth in Exhibit D-1 of the Agreement Buyout of Menasha Output Contract has been waived by WPPI.

Price

The pricing principle is that MU is Market Price taker - WPPI deducts from the MISO Real Time (or Day Ahead) Market price the cost incurred in the transmission of electric power from MU's plant to the MISO Markets. WPPI does not intend to make a significant profit with the transmission services.

The structure can be detailed as follows:

- greater of:
  - Menasha Real-Time LMP price at Menasha node price x 0.9 x power produced; **OR**
  - WPPI Average Monthly Purchased Energy Cost On-Peak and Off Peak x power produced
- **less** greater of:
  - Revenue Sufficiency Guarantee (RSG); **OR**
  - USD 3 /MWh

For example if MISO price at Menasha node is $60 per MWh and greater than WPPI Average Monthly Purchased Energy Cost On-Peak and Off Peak, then the price for MU would be:

$ 60 per MWh x 0.9 – $ 3 per MWh = **$ 51 per MWh**

Pöyry has identified discrepancy between the Master Power Purchase and Sale Agreement which in Pöyry's opinion makes provision for deduction of the RSG charge from MU's revenues. However, MU and WPPI have both informed Pöyry that it is their interpretation that the RSG charge should not be deducted from MU's revenues. WPPI confirmed the following interpretation from MU:

"Within our Purchase Power costs, paid to WPPI, they provide RSGs. With WPPI's generation mix, RSG is included as part of market (MISO) costs. These costs are passed back to each member within the Purchase Power bill. This cost component is not specifically itemized, as many MISO related costs, but are necessary to become a participant in MISO. Therefore it is our belief that these costs can be recovered from Electric Distribution."

In addition, Menasha is required to pay network transmission costs to the extent that the operation of the back-pressure turbine increases WPPI's transmission charges. This is because ATCLLS does not allow WPPI to reduce its load ratio share and thus transmission charges.

If such additional costs result from the operation of the back-pressure turbine (as stated in the Amended Confirmation Sheet), the annual transmission charges payable by MU are estimated to represent $120,000 to $150,000. If the transmission costs are allocated for MU's total production, the annual charges may exceed $400,000.

2.3 Coal Supply Agreement

The evaluation of the contract is based on review of the following documents:

- First Coal Supply Agreement signed on July 27, 2005,
- Second Coal supply Agreement signed on June 16, 2006

The review is based solely on these documents and it is assumed that no other contracts or amendments have been agreed and signed.

First Coal Supply Agreement

Term

The Coal Supply Agreement is valid from *"on or about"* September 1st 2005 through August 31st 2006, i.e. for one year. The contract has no specific provisions to extend the contract term, but this seems to be a normal practice where coal supply contracts are renegotiated annually.

There is no reason to believe coal would not be available and the contract merely guarantees a certain price for the contract period. MU is currently bidding for a coal contract with longer than one-year term.

Termination

There is no provision of early termination except by breach of contract.

Nomination and Supply

The contractual volume of supply during the term is *"approximately"* 142,000 tons.

If MU cannot accept the contractual coal volume, the seller may sell the difference between contractual quantity and actual delivery to other users. Should the supplier receive less revenue by selling the balance to other users, MU is required to pay the difference.

There is reason to believe that the 142,000 tons of coal has not been purchased as the volume corresponds to consumption at full production levels, while actual production levels in the last year have been below this level. Pöyry doesn't know if the shortfall in consumption has triggered any penalties against MU.

Price

The Base Price of coal is $ 40.41 per ton including FOB mine costs and all transportation and handling costs. The Base Price includes 13% rail fuel surcharge and 15% vessel fuel surcharge and truck fuel surcharge. The Base Price is subject to changes in the fuel prices during the Term.

In practice, MU's financial position is subject to changes in coal prices, but as the steam price is adjusted according to the coal price, the increase in fuel prices can be passed through to the steam clients, thus be partially recovered (note that there is a defacto price cap for the Sonoco and Whiting SSAs defined by the cost of self generated steam) The portion of coal that is used for the production of electric power cannot be recovered if the coal price changes without similar change in the price of electricity.

Second coal supply agreement

On June 16, Menasha and C. Reiss coal company signed a new contract, with a term running from September 1 until May 31st 2007. The actual delivered price for the new term is $ 55.65 per short ton , however, C. Reiss maintains the current price of $40.41 until the end of 2006, after which the price will be increased to $55.65 per ton plus the difference between $55.65 and $40.41 that should have been paid between September 1st and December 31st 2006. The actual price will be increased to $67.52 per ton from January 1 until the end of term. From June 1st onwards Menasha has a coal supply proposal at $ 53.8 per short ton.

Consequently, while the coal price increase can be passed through to the steam off-takers, the fuel price increase reduces the profitability of selling power to the MISO markets.

3 FINANCIAL ANALYSIS

3.1 Operating assumptions

Menasha Utilities' operation activities are based on the following key operating regimes:

- Provide steam for Sonoco, Alcan and Whiting and generate power with turbine #5
- Operate turbines #4 and 3 at maximum available load when the electric power price is at or above $38 / MWh on the MISO market
- Operate turbines #4 and 3 at a minimum 2MW load when electric prices are below $38 per MWh

Both boilers #3 and #4 have to operate to meet their 2MW minimum condensing load, and to supply the average steam supply volume of 113.6 klb/h that is required for most of the year. This is because, despite boiler #4 having a capacity of 130 klb/h, it cannot meet the 113.6 klb/h load due to fluctuating steam demands from its customers and the consumption of auxiliary steam for the facility's de-aerator and feed water-heaters.

The power generation, fuel consumption and auxiliary power demand used in MU's financial model are summarized in the table below. The prices are for the 2007 base year.

Table 7
Menasha Utilities' estimates

Steam Sales	Average klb/h	Operation d/y	Total klb/a	Price $/klb	Revenues $/y	*SSA* klb/a
Sonoco	98.76	360	853,320	$ 9.74	$ 8,311,337	750,000
Alcan	7.84	360	67,752	$ 9.35	$ 633,481	40,600
Whiting	7.84	360	67,752	$ 9.35	$ 633,481	58,000
Total Steam Sales					**$ 9,578,299**	

Power Generation	Average MW	Operation d/y	Total MWh/y	Price $/MWh	Revenues $/y
#4	8.227	243	47,982	$ 67.83	$ 3,254,696
#5	3.573	360	30,873	$ 58.50	$ 1,806,071
Fuel Cost Account 501	Steam cost to Elec.		Coal Related Exp.		
	7%		$ 7,567,575		$ 529,730
Total Power Sales					**$ 5,590,497**

Auxiliary power	Average MW	Operation d/y	Total MWh/y	Price a'	Costs $/y
	1.75	360	15,155	$ 49.20	$ 745,632
Total Aux Power Costs					**$ 745,632**

Coal Consumption	Total MMBTU/y	Price $/MMBTu	Costs $/y
	2,169,218	$ 3.36	$ 7,295,721
Total Coal Costs			**$ 7,295,721**

Total Revenues less aux power & coal costs	**$ 7,127,443**

The evaluation of the facilities operating costs and revenues is based on monthly heat balance prepared by the independent engineering firm PEC. PEC has calculated heat balances for each month under full condensing operation and also without condensing operation. The only information that was not available was the coal consumption when running the condensing turbine #4 at minimum 2 MW load. The coal consumption at 2 MW condensing operation was estimated by Pöyry based on available heat balances and turbine #4 performance curves.

In addition to the above operating regimes an allowance for scheduled and unscheduled maintenance was included.

The power generation, fuel consumption and auxiliary power demand estimates by Pöyry are presented in table below. As per above, the following prices are for year 2007.

Table 8
Pöyry's estimates

Steam Sales	**Average**	**Operation**	**Total**		**Price**		**Revenues**
	klb/h	d/y	klb/a		$/klb		$/y
Sonoco	97.4	360	**841,631**	**$**	**9.74**	$	8,197,483
Alcan	6.7	360	**57,624**	**$**	**9.35**	$	538,789
Whiting	6.7	360	**57,624**	**$**	**9.35**	$	538,789
Total Steam Sales						**$**	**9,275,060**

Power Generation	Average	Operation	Total		Price		Revenues
	MW	d/y	MWh/y		$/MWh		$/y
#4	8.228	243	**47,986**	**$**	**67.83**		3,254,985
#5	3.549	360	**30,667**	$	58.50	$	1,794,035
Fuel Cost Account 501	Steam cost to Elec.		Coal Related Exp.				
	7%		7,635,352			$	534,475
Total Power Sales						**$**	**5,583,495**

Auxiliary power	Average	Operation	Total		Price		Costs
	MW	d/y	MWh/y		a'		$/y
	1.73	360	14,981	$	49	$	737,065
Total Aux Power Costs						**$**	**737,065**

Coal Consumption	Total	Price	Costs
	MMBTU/y	$/MMBTu	$/y
	2,191,709	$ 3.36	$ 7,362,731
Total Coal Costs			**$ 7,362,731**

Total Revenues less aux power & coal costs	**$ 6,758,759**

The table below summarizes the financial impact for the year 2007 of the differences stated above:

Table 9
Summary of financial impact for 2007

	Menasha Estimates	Poyry Estimate	Δ
Revenues	**2007**	**2007**	**2007**
Electric Sales	$ 1,806,071	$ 1,794,035	$ (12,035)
Acct 501 Adjustment	$ 529,730	$ 534,475	$ 4,744
Electric Sales	$ 2,335,801	$ 2,328,510	$ (7,291)
MISO Electric Sales	$ 3,254,696	$ 3,254,985	$ 289
Steam Sales	$ 9,578,299	$ 9,275,060	$ (303,239)
Investment Income	$ 108,876	$ 108,876	$ -
Total Revenue	$ 15,277,672	$ 14,967,431	$ (310,241)
Operating Expenses			
Coal	$ 7,295,721	$ 7,362,731	$ 67,010
Labor and Burden	$ 1,798,774	$ 1,798,774	$ -
O&M Expenses	$ 2,025,231	$ 2,017,431	$ (7,800)
Total Expenses	$ 11,119,726	$ 11,178,936	$ 59,210
Gross Operating Margin	$ 4,157,946	$ 3,788,495	$ (369,451)

According to Pöyry, MU's 2007 gross operating margin should be $369,451 lower than the margin calculated by MU's financial model (Excel file received on November 10th 2006 titled "Mu forecast dated 11-10-06.xls").

The key differences between MU's estimates and Pöyry's are:

- Pöyry projects higher rates of coal consumption based on PEC heat balances.
- The steam supply volumes are on the high side considering contractual nominated capacities in the SSA. In addition, actual measurement has shown actual delivered steam has been below MU's expectation.

3.2 Review of cost and revenue components for base year 2007

The cost and revenue components of MU's financial model are reviewed in this section.

Electric revenue

Pöyry believes that MU's estimated electric sales revenue for 2007 is understated by $7,002. The total amount can be broken down as follow:

Table 10
Electric revenue

				#4			
			Menasha Estimates		Poyry Estimate		Δ
Average	MW		8.227		8.228		0.0
Operation	d/y		243		243		0.0
Total	MWh/y		47,982		47,986		-4.3
Price	$/MWh	$	67.83	$	67.83	$	-
Revenues	$/y	$	3,254,696	$	3,254,985	$	(289)
				#5			
			Menasha Estimates		Poyry Estimate		Δ
Average	MW		3.573		3.549		0.0
Operation	d/y		360		360		0.0
Total	MWh/y		30,873		30,667		205.7
Price	$/MWh	$	58.50	$	58.50		0.0
Revenues	$/y	$	1,806,071	$	1,794,035	$	12,035
				Fuel Cost Account 501			
			Menasha Estimates		Poyry Estimate		Δ
Steam cost to Elec.			7%		7%	$	-
Coal Related Exp.		$	7,567,575	$	7,635,352	$	(67,777)
Revenues	$/y	$	529,730	$	534,475	$	(4,744)

Total Δ:	$ 7,002

MU operates unit #4 in full when electricity prices are above $38 per MWh and at 2 MW level for the rest of the time. MU used WPPI LMP Market Analysis and PEC model to calculate revenues on a monthly basis over the next two years. According to WPPI, in 2007 MU can expect to sell electric power for an average $67.83 ($64.83/MWh+$3/MWh) when running at full load when prices are at $38 or above, and running at minimum load when prices are below $38. The average price is expected to increase to $69.10/MWh in 2008 or an increase of 1.87%. Pöyry used these numbers in its model after conducting its own

analysis and consulting with WPPI regarding the expected short-term and long-term change in energy prices in the local market.

An analysis based on the latest adjusted real time LMP MISO prices over a period of one year (June 2005 to June 2006) shows that MU's weighted average electric sale price during this timeframe was $64.41. This implies a 5.3% jump from 2006 to 2007, and this was verbally validated by WPPI representatives during a recent conference call.

In line with WPPI's contract, the formula used for estimating the revenues generated from unit #3 and #4 corresponds to an average MISO price (as described above) multiplied by a factor of 0.9 and adjusted for a $3 RSG. The RSG totalling $143,946 was subsequently added back to the MISO electric revenue. When questioned about this methodology, WPPI confirmed that the RSG costs should be allocated to the cost of electric distribution and not the steam utility.

The power generated by the new turbine #5 will be used to offset current demand of MU and is not part of the WPPI PSA. In the financial model the price used for electric sales from turbine #5 is $58.5 MWh, which is similar to MISO prices. Additionally MU expects to receive the total fuel cost while generating power with turbine 5. The total fuel cost allocated to turbine #5 power generation in 2007 is $529,730. This amount corresponds to the fuel related cost associated with Turbine #5 multiplied by the turbine power generation plus electrical and mechanical losses divided by the boiler efficiency.

Again, this approach was validated verbally during a conference call with MU and WPPI.

Power generation

MU's electric revenue depends on the volume of power generated. MU estimates the power generation to be 47,982 MWh from unit #4, and 30,873kWh from unit #5. Pöyry believes that this level of power generation is consistent with expectations based on the heat balance prepared by PEC.

Steam revenue

Pöyry believes that the steam revenues expected by MU are overstated by a total of more than $300,000. The table below shows that the 2007 steam sales volumes estimated by MU are more than 16% higher than the capacities nominated in the steam sales agreements discussed in Section 2.1. Although MU's estimates are based on the recent level of steam delivered to customers, Pöyry considers that the actual total steam off-take from MU's clients is likely to be higher than that stated in the SSA, but not as high as MU has assumed. Pöyry's estimated total sale volume of 956,880 klb/year is 31,944 klb/a below MU's estimates, equivalent to $303,239 per annum.

Table 11
Steam revenue

	SSA	Menasha Estimates	Poyry Estimate	Δ	Price	Δ
	klb/a	klb/a	klb/a	klb/a	$/klb	$
Sonoco	750,000	853,320	841,631	11,689	$ 9.74	$ 113,854
Alcan	40,600	67,752	57,624	10,128	$ 9.35	$ 94,692
Whiting	58,000	67,752	57,624	10,128	$ 9.35	$ 94,692
Total	848,600	988,824	956,880	31,944		$ 303,239

Contractually, it is possible that the three steam supply customers require more steam, consequently overall steam revenues could potentially be higher.

Investment income

MU's financial analysis assumes investment income derived from interest earned from deposits of unspent funded capital. MU's unrestricted funds include: Steam construction, Revenue and Depreciation fund. Designated funds are Bond redemption and Debt service funds.

Assuming an interest rate of 5.15%, the corresponding fund needed to generate the level of investment income included in MU's projection would be as follow:

Table 12
Investment income

Year	Investment Income Expected	Average Funds Needed
2007	$ 108,876	$ 2,114,097
2008	$ 200,000	$ 3,883,495
2009	$ 175,000	$ 3,398,058
2010	$ 135,000	$ 2,621,359

From our discussions with MU and RBC Capital it is reasonable to believe that the amount of funds needed to produce the investment income included in the financial projection will be available to the facility.

Coal consumption

MU and Pöyry coal consumption assumptions are aligned and both derived from PEC's monthly heat balances. The $67,010 discrepancy is negligible considering the expected total yearly cost of coal. The steam production volume has a direct impact on coal consumption. If Pöyry had used the same steam production assumptions than MU, the coal consumption shown in the table below would have been higher.

Table 13
Coal consumption

		Menasha Estimates	Poyry Estimate	Δ
Total	MMBTU/y	2,169,218	2,191,709	22,491
Price	$/MMBTu	$ 3.36	$ 3.36	$ (0)
		$ 7,295,721	$ 7,362,731	$ 67,010

Coal price

The first coal contract with C Reiss was signed on July 27th, 2005 with a price of $40.41 per ton or $2.3 per MMBTU. The first contract ended on August 30th, 2006.

The second coal contract with Reiss came into effect on September 1st, 2006 and had a Price of $55.65 per ton or $3.16 per MMBTU. However, MU and C Reiss agreed that MU shall continue to pay $40.41 per ton until the end of December 2006 and that the balance between the proposed price ($55.65) and $40.41 will be paid back in the coal supplies that occur between January 1st and May 31st, when the contract term ends. As a result the price of coal until the end of the year 2006 remains a 40.41 $/ton but increases to approximately $67.52 per ton from January 1st onwards. This $67.52 per ton price includes $11.87 per ton costs that compensates MU undercharging between September 1st and December 31st 2006.

From June 1st onwards the price is expected to settle to $3 per MMBTU based on a proposal from a coal supplier dated June 2006. Pöyry estimated the coal price to be $3.25 in 2008 which corresponds to the 2007 price increased by 3%.

Labor and payroll burdens

According to PEC, the staffing level is typical for a facility this size. The budget is based upon actual labor and payroll charges incurred by MU during the previous years operating the plant and the labor rates for the current contracts for 2006 & 2007. Additional staff costs have been added together with adjustments in all other O&M categories to reflect anticipated O&M expenses when operating the Menasha Power Plant's boilers #3 and #4 as a steam production facility. Detailed payroll and salary annexes were included in the PEC Due Diligence report and the labor and payroll burdens appear to have been estimated accurately.

Operating and maintenance expenses

Operating and maintenance expenses can be divided into the following five subcategories:

- Maintenance and steam supply items: Ash disposal, Steam expenses & chemicals, Electric expenses, Miscellaneous steam power expenses, Maintenance of infrastructure, Maintenance of boiler plant, reverse osmosis (RO) chemicals & service and Maintenance of electric plant. Pöyry's review found that the base level expense estimates appear accurate.

- City water and sanitary: The city water and sanitary rates are based on the current tariffs which will increase by 30% in 2008

- Taxes

- RO lease: Payments are based on the lease agreement made with GE Capital Public Finance Inc.

- Auxiliary power: in line with PEC information, Pöyry's assumption of auxiliary power consumption is very similar to Menasha's. The slight difference comes from a small variation in the average yearly power consumption. As shown in the following table, auxiliary power cost is $8,567 higher in MU's financial model.

Table 14
Operating and maintenance expenses

		Auxiliary power		
		Menasha Estimates	Poyry Estimate	Δ
Average	MW	1.75	1.73	0.0
Operation	d/y	360	360	0.0
Total	MWh/y	15,155	14,981	174.1
Price	$/MWh	$ 49.20	$ 49.20	-
Costs	$/y	$ 745,632	$ 737,065	$ 8,567

3.3 Review of projected estimates

Cost and revenue escalations play a significant part in the medium and long term credit worthiness of the project. In addition to reviewing the expense and income components of the 2007 financial results (the base year used for the 20 year operating margin projection), Pöyry assessed the key assumptions used by Menasha Utilities in its financial projections and contrasted them with available public information.

Inflation

Menasha Utilities applied an escalation rate of 3.6% on the following operating and maintenance costs: ash disposal, steam expenses and chemicals, electric expenses, miscellaneous steam power expenses, maintenance of buildings, maintenance of boiler Plant, RO chemicals & service and maintenance of electric plant.

It was established during our review that the 3.6% CPI increase had been wrongly calculated. Pöyry analyzed the historical national inflation rate based on the US Department of Labor's consumer price index (CPI). Using a time series dating back from 1913 the following statistics were calculated:

	%
Average 1913 to 2005	3.4
Mode 1913 to 2005	1.0
Median 1913 to 2005	2.8
Min 1913 to 2005	-10.5
Max 1913 to 2005	18.0

Average 1975 to 2005	4.6
Average 1985 to 2005	3.1
Average 1995 to 2005	2.6

At a local level, the average CPI change for the Midwest (urban) over the past 20 years is 2.9%. It is 2.5% if the last ten years are considered.

Pöyry also consulted the national CPI forecast published in the *Blue Chip Economic Indicators*. *Blue Chip Economic Indicators* produces consensus estimates based a monthly survey of around 50 of the leading business economists. Contributors to the forecasts include organizations like Morgan Stanley, Moody's, S&P, Merrill Lynch, Ford Motor and the International Monetary Fund. The latest results published on November 10th, 2006, give an estimate of 2.9% for 2006 and 2.3% for 2007.

Considering the above, Pöyry decided to assume an inflation rate of 2.5% in its financial projection (1.1 percentage point below MU's).

Electric Revenues

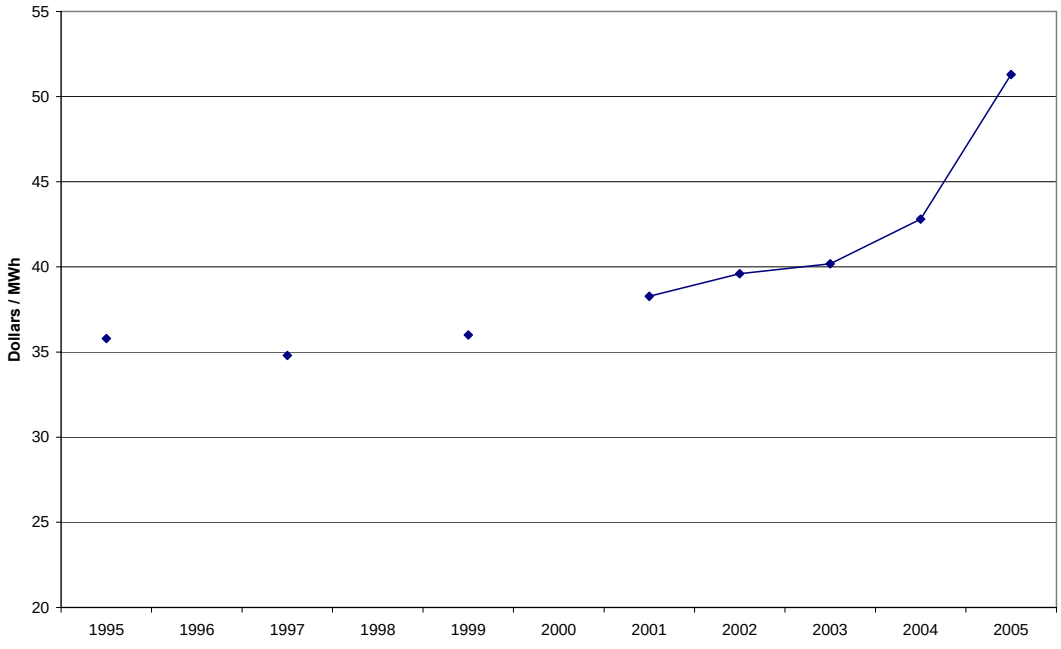
Menasha Utilities electric revenues are calculated separately with different escalation percentages for the electricity created by unit #4 which is sold to WPPI on the MISO market and the electricity sold from unit #5. These two items have been reviewed separately as follows:

MISO electric revenue

In MU's financial model an escalation rate of 4.0% is applied to the price of electricity sold to WPPI on the MISO market from boiler 4#. Historical average power cost to WPPI´s members has increased by 3.7% annually since 1995 (CAGR 1995 to 2005). However, year 2005 was a peak year corresponding to a 19.9% jump from 2004. If this peak year in electricity prices is excluded, compound annual growth rate for nine years, from 1995 to 2004 has been much lower at 2.0%.

Figure 31

Average power cost ot WPPI's Members



Source: WPPI, Annual report 2005

Pöyry compared MU's 4% expected increase to the Federal Government's Energy Information Administration's (EIA) most recent forecasts. The EIA is the agency responsible for producing official energy historical statistics and forecasts on behalf of the US Department of Energy.

The following analysis is based on the EIA's yearly publication titled, "The Annual Energy Outlook 2006" (AEO2006). This document was published in February and presents a

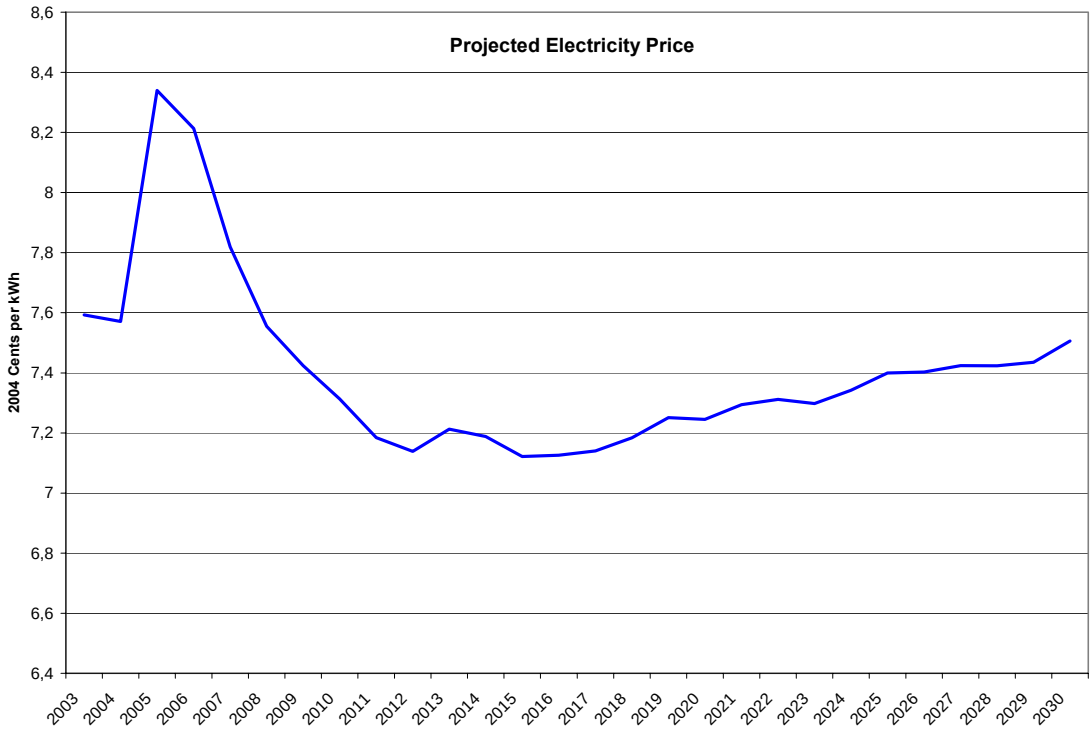
forecast and analysis of US energy supply, demand, and prices through 2030. The report is based on actual figures for 1990 – 2004 and forecasts for the period up to 2030.

Electricity prices are primarily determined by the costs of generating the electricity, which make up about two-thirds of the total retail price. As a result, the electricity price forecast is primarily a function of price and share forecasts for the different fuels. Operating, maintenance and capital costs make up the rest of the electricity retail price.

In the EIA's reference case, oil prices will decline to 2014 and natural gas to 2016 and then start to increase steadily. The same pattern can be seen also in the electricity price development.

Figure 32

Projected electricity price



Source: Energy Information Administration, Annual Energy Outlook 2006

In the EIA's reference case the average U.S retail electricity price drops from the peak year 2004 through 2012, when it starts gradually rise. The 2004-2005 spikes in natural gas and petroleum prices, along with elevated coal prices, led to a jump in electricity prices.

Table 15
Electric price trends

Year	Price	CAGR 06 to -
2006	7,82	**NA**
2007	7,56	-4,80 %
2008	7,42	-4,09 %
2009	7,31	-3,31 %
2010	7,19	-2,86 %
2011	7,14	-2,64 %
2012	7,21	-2,31 %
2013	7,19	-1,84 %
2014	7,12	-1,65 %
2015	7,13	-1,57 %
2016	7,14	-1,41 %
2017	7,18	-1,26 %
2018	7,25	-1,11 %

Year	Price	CAGR 06 to
2019	7,25	-0,95 %
2020	7,25	-0,89 %
2021	7,29	-0,79 %
2022	7,31	-0,72 %
2023	7,30	-0,69 %
2024	7,34	-0,62 %
2025	7,40	-0,55 %
2026	7,40	-0,52 %
2027	7,42	-0,48 %
2028	7,42	-0,46 %
2029	7,44	-0,43 %
2030	7,51	-0,37 %

Assuming an annual inflation rate between 2.5% and 2.9% and an annual real electricity price decrease of -0.52% over the next 20 years (CAGR 2006 to 2026), the estimated nominal price increase is between 1.98% and 2.36% per annum:

- -0.52%+2.5%+(-0.52%×2.5%)= 1.97%
- -0.52%+2.9%+(-0.52%×2.9%)= 2.36%

Although the EIA predicts a drop in electric price over the short-term, from our discussion with WPPI, the review of internal budgeting documents and considering the characteristics of MU's local market, Pöyry believes that a 4% escalation rate on electric price is appropriate.

Electric revenue from unit #5

Menasha Utilities also applied an escalation rate of 4% on the electricity sold from turbine #5. MU developed the forecasted energy sales and peak demand increase of 4% based on WPPI's load forecast for its 40 members. It is reasonable to assume that the escalation rate for unit #5 electric revenue should also follow the market based prices. Therefore, the same escalation percentage has been used for both MISO electric revenues and electric revenue from unit #5.

Steam Revenue

The price of steam is divided into three components namely Operations and maintenance charge (OMC), capital recovery charge (CRC) and fuel charge (FC). The OMC is intended to cover Sonoco's share of the O&M costs, CCR the additional capital costs as a result from refurbishment to burn PRB coal and FC the fuel costs.

- OMC is further divided into labor and non-labor items, 52% and 48% respectively, which corresponds to the cost structure used in the financial model. The labor-parts escalation is based on an escalation percentage of 5%. Non-labor escalates at 3.6%.
- CRC is fixed.
- FC escalates at the same level as coal cost.

Steam revenue escalation is applied correctly.

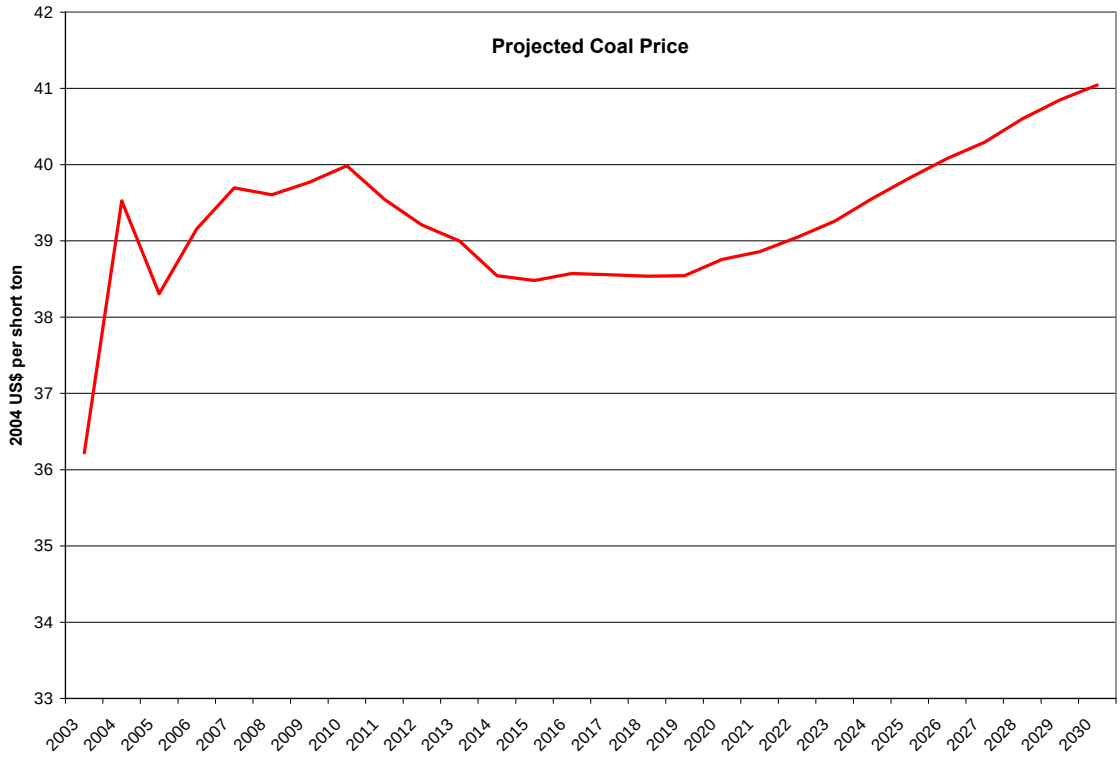
Coal price projections

Pöyry compared Menasha Utilities' coal price projections with the EIA's most recent forecasts.

The EIA projects an annual production increase of 1.1% from 2004 to 2015, with growth increasing to 2% per year thereafter. Growth in coal consumption will be driven by the increasing use of coal for electricity generation at existing and new facilities. According to the EIA, low-cost Western coal will continue to gain market share as it is the lowest cost fuel option for generating electricity in many parts of the US. Each year sees more coal-fired plants switching to Western coal, particularly from the Powder River Basin. In 2004, an estimated 20 plants, many located east of the Mississippi River, used PRB coal for the first time.

Figure 33

Projected coal price



Source: Energy Information Administration, Annual Energy Outlook 2006

In EIA's reference case, the delivered price per short ton of coal drops slightly from 2010 to 2015, as mine capacity utilization declines and production shifts away from higher cost Central Appalachian mines. Prices stay flat until 2020 when substantial investment in new mining capacity steadily increases to meet growing demand, low productivity growth and rising utilization of mining capacity.

Table 16
Coal price projections

Year	Price	CAGR 06 to -
2006	39.16	**NA**
2007	39.70	1.37%
2008	39.61	0.57%
2009	39.77	0.52%
2010	39.99	0.52%
2011	39.55	0.20%
2012	39.21	0.02%
2013	39.00	-0.06%
2014	38.54	-0.20%
2015	38.48	-0.19%
2016	38.57	-0.15%
2017	38.56	-0.14%
2018	38.54	-0.13%

Year	Coal Price	CAGR 06 to
2019	38.54	-0.12%
2020	38.76	-0.07%
2021	38.86	-0.05%
2022	39.05	-0.02%
2023	39.26	0.02%
2024	39.56	0.06%
2025	39.83	0.09%
2026	40.08	0.12%
2027	40.30	0.14%
2028	40.60	0.16%
2029	40.85	0.18%
2030	41.05	0.20%

Assuming an annual inflation rate between 2.5% and 2.9% and an annual real coal price increase of 0.12% over the next 20 years (CAGR 2006 to 2026), the estimated nominal price increase is between 2.62% and 3.02% per annum:

- 0.12%+2.5%+(0.12%×2.5%)= 2.62%
- 0.12%+2.9%+(0.12%×2.9%)= 3.02%

Based on the projections from EIA, MU's 3% inflation applied to coal price seems appropriate.

Labor, payroll, admin and general expenses

Labor costs are expected to increase at a rate of 5% per year. This increase is based on Menasha's bargaining contract, which includes wages and benefits with the two largest benefits costs being health insurance and the state retirement.

O&M expense escalation

MU escalated non-labor O&M expenses by the expected CPI level of 3.6% annually. As mentioned previously, Pöyry reset future CPI increase to an average annual rate of 2.5% in its model. The escalation for each item is applied separately on an annual basis in the financial model.

The escalations of the O&M expenses by main category are as follows.

Table 17
Escalations of O&M expenses by main category

	Menasha Estimates	Poyry Estimate
Ash Disposal	**3.60%**	**2.50%**
Steam Expenses + Chemicals	**3.60%**	**2.50%**
Electric Expenses	**3.60%**	**2.50%**
Misc. Steam Power Expenses	**3.60%**	**2.50%**
Maintenance of Structions	**3.60%**	**2.50%**
Maintenance of Boiler Plant	**3.60%**	**2.50%**
City Water & Sanitary	**30% in 07 the 3%**	**30% in 07 the 3%**
RO Chemicals & Service	**3.60%**	**2.50%**
Maintenance of Electric Plant	**3.60%**	**2.50%**
Auxiliary Power	**4.00%**	**4.00%**
Depreciation/RO Lease	**0.00%**	**0.00%**
Additional Depreciation Fund	**1.00%**	**1.00%**
PILOT	**2.80%**	**2.80%**
Taxes	**3.00%**	**3.00%**

- The city water and sanitary rates will increase in 2008 by 30% because of the Water Plant construction project and then are estimated to increase at a rate of 3% thereafter.
- Taxes: Taxes are estimated to increase 3% annually.
- Auxiliary power: The auxiliary power costs escalation is based on the current electric tariffs which are expected to increase by the same level as electric revenues in revenue side.
- RO lease: RO lease payment escalation is 0%/a, according to contract made with GE Capital Public Finance Inc.

3.4 Debt servicing

This section of the report represents the focal point of the analysis and assumptions highlighted in this document. It also includes the expected level of debt servicing related to the steam project that MU will have to honor.

MU's debt servicing schedule was estimated by RBC Capital and provided to Pöyry. It is composed of interest and principal repayment on Revenue Bonds and General Obligation. The total debt service schedule is estimated to be as follow:

Table 18
Debt servicing

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Revenue Debt Service	$ 975,923	$ 1,117,660	$ 1,117,660	$ 2,328,425	$ 2,328,175	$ 2,329,350	$ 2,326,625	$ 2,330,000	$ 2,328,825
GO Debt Service (Jr. Lien)	$ 788,450	$ 1,013,400	$ 1,013,400	$ 1,258,400	$ 1,448,700	$ 1,608,000	$ 1,605,200	$ 1,610,300	$ 1,607,700

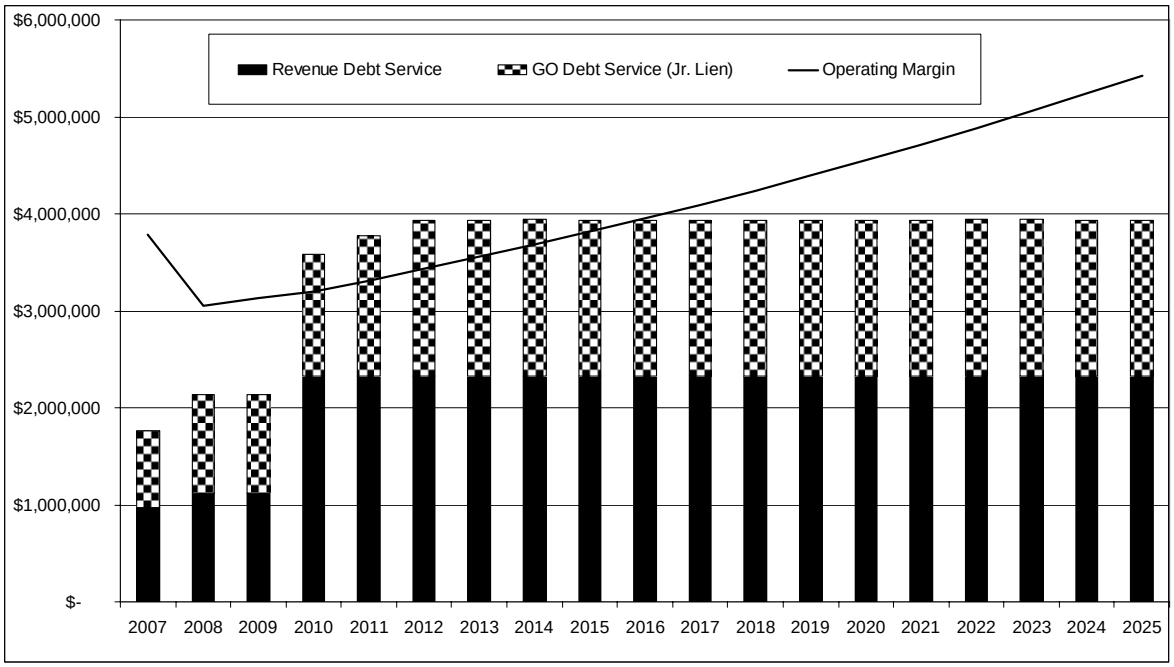
2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
$ 2,328,100	$ 2,327,500	$ 2,326,700	$ 2,330,375	$ 2,327,875	$ 2,329,200	$ 2,328,700	$ 2,331,050	$ 2,330,600	$ 2,327,025
$ 1,607,700	$ 1,610,000	$ 1,609,300	$ 1,605,600	$ 1,608,900	$ 1,608,600	$ 1,609,700	$ 1,611,900	$ 1,604,900	$ 1,609,000

Pöyry estimates MU's operating margin in 2007 to be almost $3.78MM or $369,451 below MU's latest calculations. In 2008 Pöyry predicts MU's margin to drop to $3.05MM due to a sharp decrease in steam price. According to our estimates and assuming the debt servicing schedule displayed in the above table, from year 2010 to 20015 MU will not be able to service its General Obligation. The detailed financial projection is available in Appendix 2.

The graph below compares MU's operating margin to its accumulated debt commitment.

Figure 34

Comparison of MU's operating margin to accumulated debt commitment



3.5 Sensitivity analysis

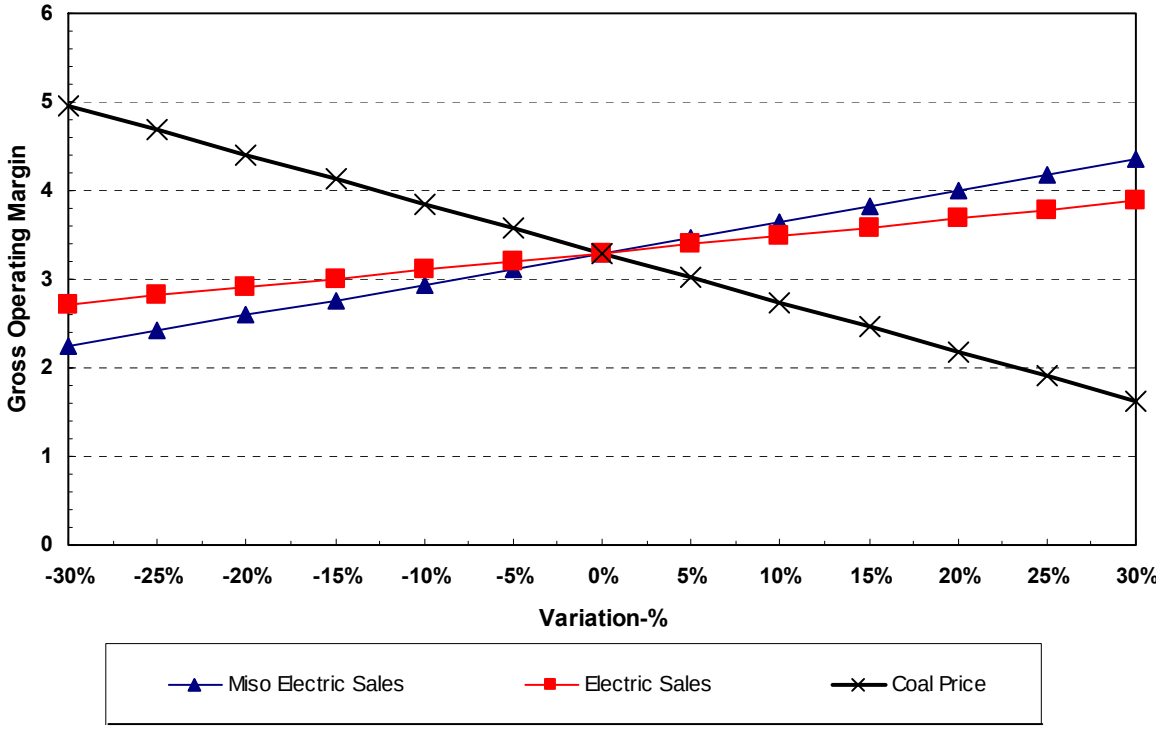
Pöyry conducted a sensitivity analysis on the three key drivers of MU's operating margin:

- Electricity price sold on the MISO market
- Electricity price sold through turbine #5
- Coal price

The graph below shows the impact of a percentage point increase/decrease in the above three variables on MU's average five years operating margin. As expected, the price of coal has the greatest impact on financial performance. For MU to meet its debt commitments ($4MM per year) the price of coal would have to drop by approximately 12% when all other variables stay constant. The same objective could be met if electricity sold to the MISO market increased by 20%.

Figure 35

Sensitivity of gross operating margin (5Y average) – Menasha



APPENDIX 1

Received via email from Doug Young on October 16th 2006, Sonoco confirming the following calculation:

Old Fuel Cost per #.44/100# steam, based on $40.41/ton

New Fuel Coast per $5.74/1000# steam, based on $67.52/ton

Revised Appendix A, item B.iii (example calculation)

FC = $3.44/1000# × ($3.84/$2.30 mmBtu) = $5.74/1000# Therefore the change in FC = $5.74 - $3.44 = $2.30

(original document available on request)

APPENDIX 2

PÖYRY FINANCIAL PROJECTIONS

Revenues	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Electric Sales	$ 1,794,035	$ 1,865,797	$ 1,940,429	$ 2,018,046	$ 2,098,768	$ 2,182,718	$ 2,270,027	$ 2,360,828	$ 2,455,261	$ 2,553,472
Acct 501 Adjustment	$ 534,475	$ 519,206	$ 534,991	$ 551,258	$ 568,024	$ 585,303	$ 603,111	$ 621,465	$ 640,381	$ 659,877
Electric Sales	$ 2,328,510	$ 2,385,002	$ 2,475,419	$ 2,569,304	$ 2,666,792	$ 2,768,021	$ 2,873,138	$ 2,982,293	$ 3,095,642	$ 3,213,348
MISO Electric Sales	$ 3,254,985	$ 3,400,044	$ 3,536,046	$ 3,677,488	$ 3,824,587	$ 3,977,571	$ 4,136,673	$ 4,302,140	$ 4,474,226	$ 4,653,195
Steam Sales	$ 9,275,060	$ 8,212,600	$ 8,458,051	$ 8,711,702	$ 8,973,829	$ 9,244,721	$ 9,524,675	$ 9,813,998	$ 10,113,007	$ 10,422,032
Investment Income	$ 108,876	$ 200,000	$ 175,000	$ 135,000	$ 135,000	$ 135,000	$ 135,000	$ 135,000	$ 135,000	$ 135,000
Total Revenue	$ 14,967,431	$ 14,197,647	$ 14,644,516	$ 15,093,493	$ 15,600,208	$ 16,125,313	$ 16,669,487	$ 17,233,431	$ 17,817,875	$ 18,423,575
Operating Expenses										
Coal	$ 7,362,731	$ 7,133,574	$ 7,347,581	$ 7,568,009	$ 7,795,049	$ 8,028,901	$ 8,269,768	$ 8,517,861	$ 8,773,396	$ 9,036,598
Labor and Burden	$ 1,798,774	$ 1,888,713	$ 1,983,148	$ 2,082,306	$ 2,186,421	$ 2,295,742	$ 2,410,529	$ 2,531,056	$ 2,657,608	$ 2,790,489
O&M Expenses	$ 2,017,431	$ 2,125,284	$ 2,182,884	$ 2,242,435	$ 2,304,007	$ 2,367,670	$ 2,433,498	$ 2,501,568	$ 2,571,959	$ 2,644,754
Total Expenses	$ 11,178,936	$ 11,147,571	$ 11,513,613	$ 11,892,750	$ 12,285,477	$ 12,692,312	$ 13,113,795	$ 13,550,484	$ 14,002,964	$ 14,471,841
Gross Operating Margin	**$ 3,788,495**	**$ 3,050,076**	**$ 3,130,903**	**$ 3,200,744**	**$ 3,314,731**	**$ 3,433,001**	**$ 3,555,692**	**$ 3,682,946**	**$ 3,814,911**	**$ 3,951,734**

Revenues	2017	2018	2019	2020	2021	2022	2023	2024	2025
Electric Sales	$ 2,655,610	$ 2,761,835	$ 2,872,308	$ 2,987,201	$ 3,106,689	$ 3,230,956	$ 3,360,194	$ 3,494,602	$ 3,634,386
Acct 501 Adjustment	$ 679,970	$ 700,680	$ 722,026	$ 744,027	$ 766,703	$ 790,075	$ 814,166	$ 838,997	$ 864,592
Electric Sales	$ 3,335,581	$ 3,462,515	$ 3,594,334	$ 3,731,227	$ 3,873,391	$ 4,021,031	$ 4,174,361	$ 4,333,600	$ 4,498,979
MISO Electric Sales	$ 4,839,323	$ 5,032,896	$ 5,234,212	$ 5,443,580	$ 5,661,323	$ 5,887,776	$ 6,123,287	$ 6,368,219	$ 6,622,947
Steam Sales	$ 10,741,413	$ 11,071,501	$ 11,412,661	$ 11,765,269	$ 12,129,714	$ 12,506,399	$ 12,895,742	$ 13,298,173	$ 13,714,139
Investment Income	$ 135,000	$ 135,000	$ 135,000	$ 135,000	$ 135,000	$ 135,000	$ 135,000	$ 135,000	$ 135,000
Total Revenue	$ 19,051,316	$ 19,701,912	$ 20,376,206	$ 21,075,076	$ 21,799,428	$ 22,550,207	$ 23,328,390	$ 24,134,992	$ 24,971,065
Operating Expenses									
Coal	$ 9,307,696	$ 9,586,927	$ 9,874,535	$ 10,170,771	$ 10,475,894	$ 10,790,171	$ 11,113,876	$ 11,447,292	$ 11,790,711
Labor and Burden	$ 2,930,013	$ 3,076,514	$ 3,230,340	$ 3,391,857	$ 3,561,449	$ 3,739,522	$ 3,926,498	$ 4,122,823	$ 4,328,964
O&M Expenses	$ 2,720,037	$ 2,797,897	$ 2,878,426	$ 2,961,717	$ 3,047,871	$ 3,136,988	$ 3,229,175	$ 3,324,541	$ 3,423,199
Total Expenses	$ 14,957,747	$ 15,461,338	$ 15,983,300	$ 16,524,345	$ 17,085,215	$ 17,666,681	$ 18,269,549	$ 18,894,656	$ 19,542,875
Gross Operating Margin	**$ 4,093,570**	**$ 4,240,574**	**$ 4,392,906**	**$ 4,550,731**	**$ 4,714,214**	**$ 4,883,526**	**$ 5,058,841**	**$ 5,240,336**	**$ 5,428,190**