



**ALBERTA  
PACIFIC**  
FOREST INDUSTRIES INC

# Al-Pac's Evolution

**from pulp mill to biorefinery**

**Geoff Clarke**, MBA, MF, RPF (AB & SK)  
Corporate Planning  
Alberta-Pacific Forest Industries Inc.

2012 Pacific Rim Summit on  
Industrial Biotechnology and Bioenergy  
October 10-12<sup>th</sup>, 2012  
Vancouver, BC, Canada

# About Alberta-Pacific



♣ 68,664 km<sup>2</sup> boreal mixedwood

♣ FSC certified since 2005

♣ Al-Pac's Sustainable Harvest

● 2.4 million m<sup>3</sup>/yr deciduous

● 727,000 m<sup>3</sup>/yr coniferous

♣ Largest single line kraft pulp mill in North America

♣ Products

● kraft pulp (first pulp produced in '93)

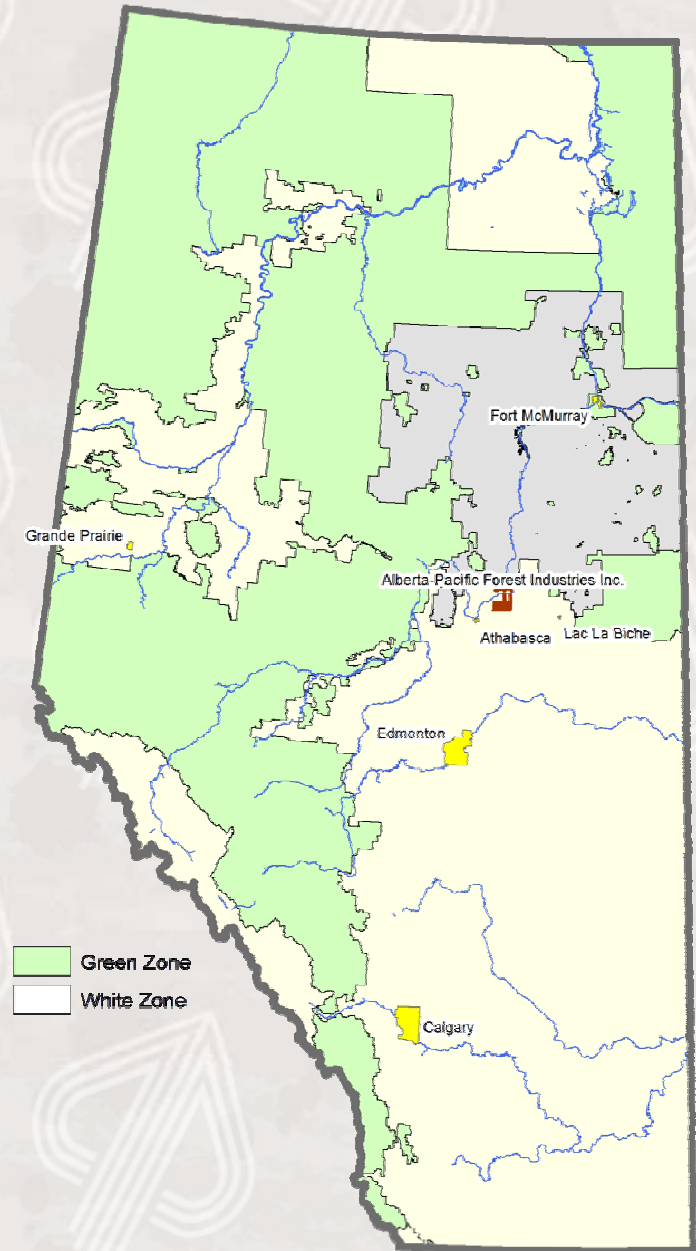
● green power (first exported in '01)

♣ Other Notables

● ownership

● Top 100 Employer

● 2011 Safest Mill in Canada



# “New AI-Pac” Objectives



- ♣ **Realize a sustainable and diversified EBITDA**
- ♣ **Mitigate risks; including fibre and economic risks**
- ♣ **Leverage our 3-biggest assets: people, pulp mill & fibre**
- ♣ **Improve its ROCE and enhance shareholder value**
- ♣ **Develop opportunities based on regional advantages:**
  - **fibre availability (woody biomass and agriculture residues)**
  - **proximity to the Energy and Agricultural sectors**
  - **existing pulp mill infrastructure and by-products**
  - **existing knowledge base (i.e. materials handling)**



# Escalating “Green” Power Export



Phase 1

Phase 2

Phase 3

	2010	2011	2012+	2015+
	Status Quo	After substation activation with transmission line	With condensing steam turbine	Adding second ACC bank
Max Export Potential	10 MWh/hr	14 MWh/hr	28 MWh/hr	40 MWh/hr
Max Export Capacity	81,900 MWh/yr	93,700 MWh/yr	224,700 MWh/yr	339,900 MWh/yr
Equivalent # of homes	3,500 /yr	4,700 /yr	9,620 /yr	14,290 /yr



[www.lightsxmas.com](http://www.lightsxmas.com)

# Bio-Methanol



- ⌘ Commission date: August 2012
- ⌘ Product designed to IMPCA standards
- ⌘ Estimated production ~4,200 MT/yr
- ⌘ Internal consumption ~1,300 MT/yr
- ⌘ CapEx \$10MM



# Vision



## Continual improvement regarding...

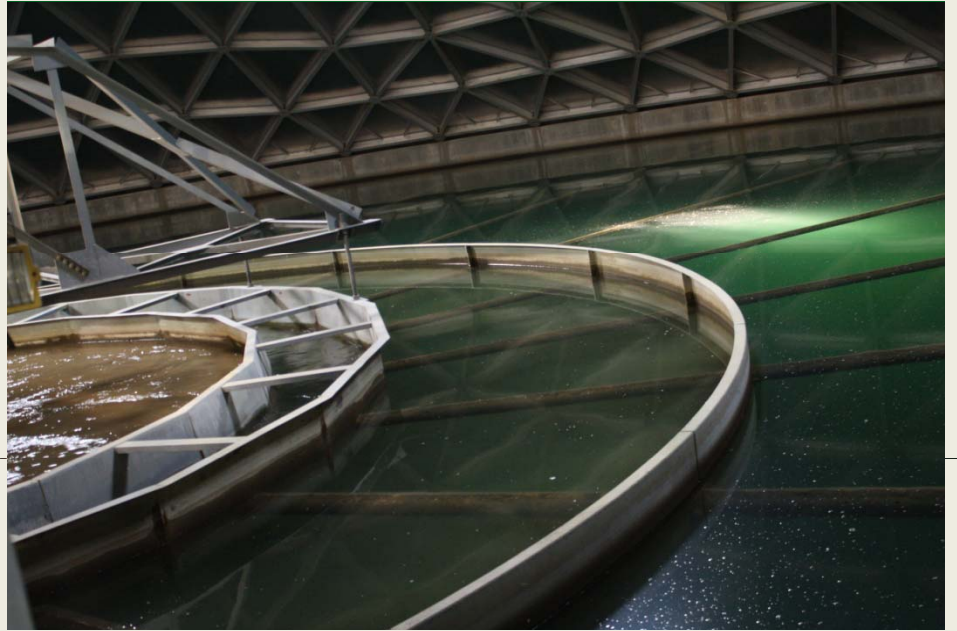
- ♣ Leading in low cost, high quality, FSC certified kraft pulp
- ♣ Green power (self sufficient & revenue generating)
- ♣ Bio-Methanol
- ♣ Integrated land services
- ♣ Carbon offsets
- ♣ Value creation of waste streams
- ♣ Valourisation of by-products

## Augmented with transformative innovation...

- ♣ 1-2 additional synergistic initiatives
  - ♣ Commodity
  - ♣ Specialty Product



# Value Creation of By-Products



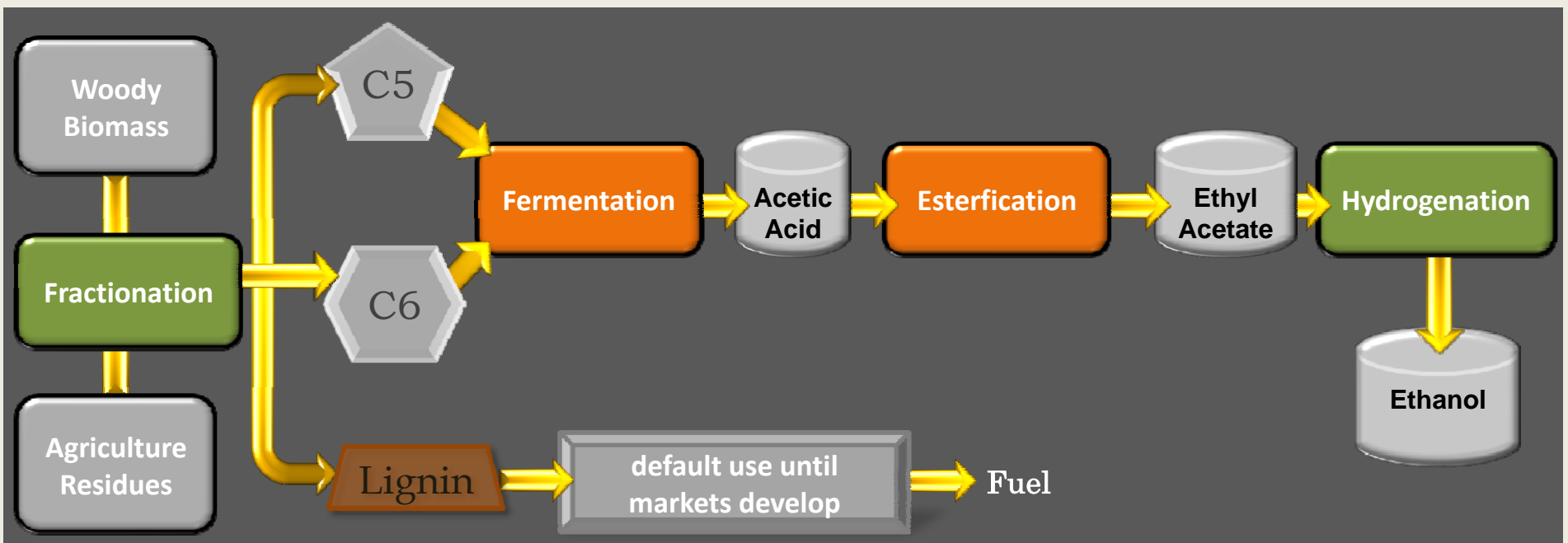


# Valourising Existing By-Products





# Cellulosic Derivatives and Sugars



# A Sustainable Business Model for Forestry

