

# *Biodiesel Ramping Up The Market To 2010*

*Dennis Rogoza  
Director, BC Biofleet Program*

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Fraser Basin Council





# ***Issue: Market Ramp-Up To 2010***

- **2010 Renewable Fuels Mandate**
  - Details not yet clear on biodiesel
- **Key Issue – Ramping-Up To The Mandate**
  - Currently, biodiesel has a very small market share
  - Few producers, distributors, or users
  - Strong interest by some prospective users
  - Lack of knowledge and scepticism by many
  - Challenge – How to grow the market and put into place the foundation for the mandate?
- **My Presentation**
  - Lessons from BC on Ramping-Up the Market



# *Issue: Market Ramp-Up To 2010*

- **Lessons from BC**
  - **BC made a choice**
    - Focused, coordinated effort to ramp-up the market
  - **BC Biodiesel Market**
    - 2004 - 12,000 litres B100
    - 2006 - 3 million litres plus
    - 2008 - up to 100 million litres possible
  - **Many Lessons Learned**
    - Applicable to ramping-up the biodiesel market in Canada



# ***Context: Air Issues in BC***

- **Cleaner Air Has been a Top Priority**
  - **20 Years of working together**
    - Policy makers, regulators, industry
  - **Innovative programs and leadership**
    - Air Care
    - SCRAP-It
    - 150 PPM sulphur diesel since 1995
    - Alternative fuels (NGV buses)
    - Innovative technologies (hydrogen, hybrids)



# ***Context: Air Issues in BC***

- **Climate Change Now on Agenda**
  - **Example: Commitments By Municipalities**
    - Target: minus 20% Kyoto by 2010
    - Fleets and buildings are key areas
    - For city fleets, biodiesel is the easiest, most cost effective method to achieve target
  - **Example: CSR Corporations “Going Green”**





# ***Biodiesel In BC***

- **Fraser Basin Council took lead**
  - Non-profit organization with sustainability mandate
- **Brought key parties together**
  - Asked two questions
    1. *Are there good reasons to support market for biodiesel?*
      - Yes
    2. *Will there be a bigger impact by working together?*
      - Yes
- **Working Group established**
  - 22 organizations (Government, industry and fleets)



# ***BC Biofleet: Working Group***

- **BC Biofleet Program**
  - Established Fall 2004
  - Operates under general direction of WG
- **Key To Success**
  - Active leadership and management





# ***BC Biofleet: Goal***

- **Goal**
  - “Ramp Up” the Biodiesel Market
  - Substantially increase use
- **Challenge**
  - Break the “**chicken/egg**” problem
    - If no demand, then no one will make the investments to supply biodiesel
    - If no supply, then it is very difficult for buyers to buy even if they want to
- **Current situation in most Canadian markets**





# ***BC Biofleet: Ramp-Up Strategy***

- **Clear Consensus in Working Group**
  - ***“Build (the Market) and they (the suppliers) will come”***
  - The market needs *buyers*
  - We believed we could have an impact



# ***BC Biofleet: Ramp-Up Strategy***

- **Summary of Strategy**

- *“Get a geographic cluster of user fleets to purchase enough volume to foster private investment in supply infrastructure allowing biodiesel to be supplied on rail car basis.*
- *This will lower delivered prices resulting in a very competitive price vs. diesel and even more users.*
- *This, in turn, will foster Canadian biodiesel production”*
- *This will generate markets for feedstock supply like canola*

- **Achieve volume & price “*tipping*” points**



# *Buyer Focus*

- **BC Focus – Volume Buyers**
  - Question - What do volume users need to make a buy decision?
- **Five Point Action Plan**
  1. Information
  2. Education
  3. Tools
  4. Demonstration
  5. Incentives





# #1 - Information

- A buyer must first have product knowledge before they will consider buying
  - *There is an information “gap” on biodiesel*
  - *BC Strategy*
    - Biodiesel 101 Workshop (March 2005)
    - *Under the Hood* Workshops across BC (7)
    - Production Opportunities Workshop (Jan 2006)





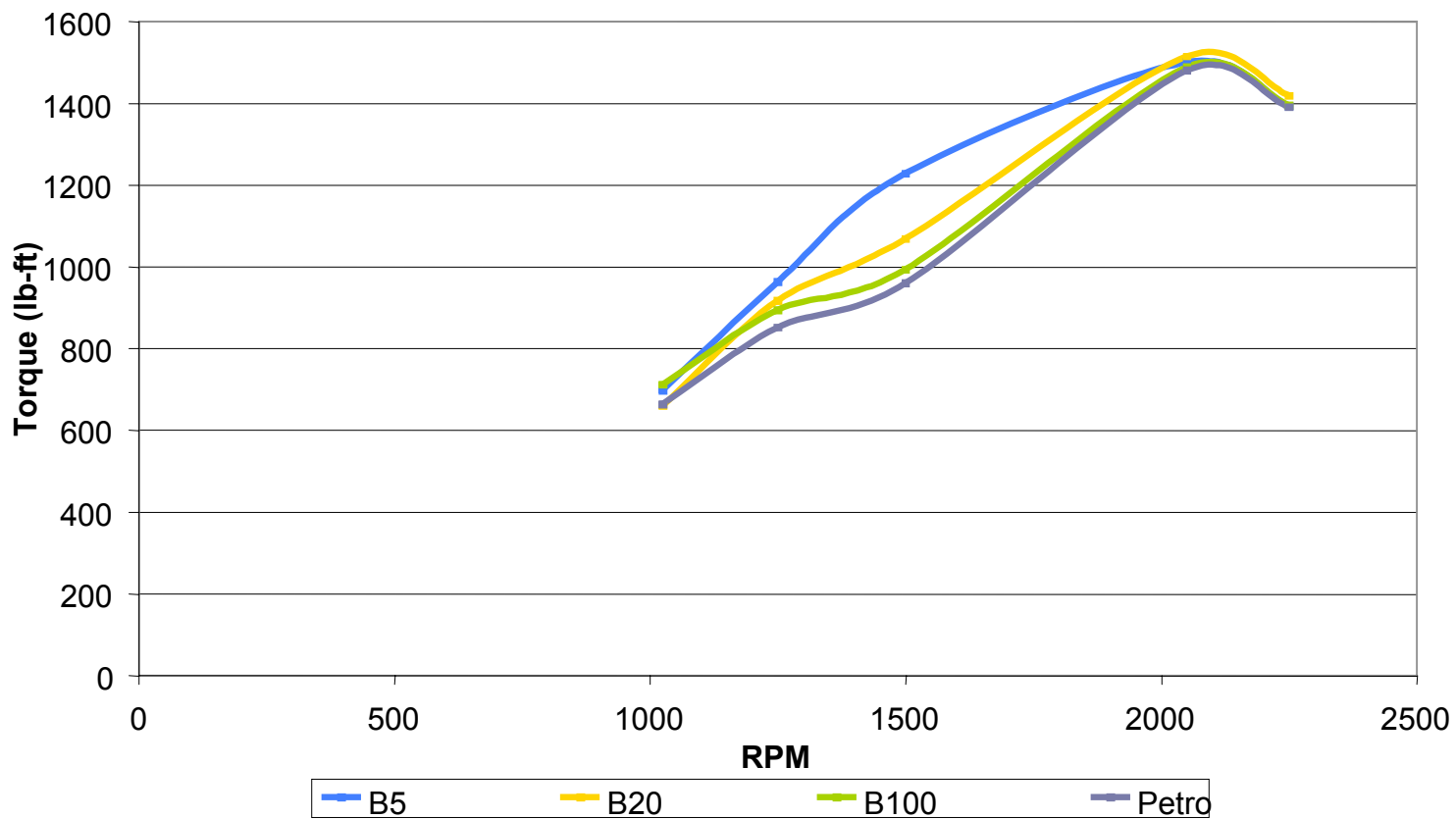
# #1 - Information

- **Buyers Are Sceptical**
  - They want independent, trusted information, not just “sales talk”
- **What Do Buyers Want to Know?**
  - Emissions reduction
  - Compatibility with diesel/ULSD
  - Price, availability & local suppliers
  - Fuel Quality (ASTM D6751)
  - Warranties
  - Winter performance
  - Engine Performance
    - Lubricity, ignition, noise, oil changes, filters



# Eg. Biodiesel - Superior Torque

CAT 3176C engine – Montreal BioMer Project





## #2 - Education

- **Educated buyer is one who actually buys**
  - Understands benefits and costs
  - Perceives minimum risk & manages the risks
    - Many have knowledge of MN experiences
  - ***BC Strategy***
    - Biodiesel Case Studies
    - DVD education videos
    - Biodiesel Resources <http://www.bcbiofleet.ca>
    - One on One contact with experienced users

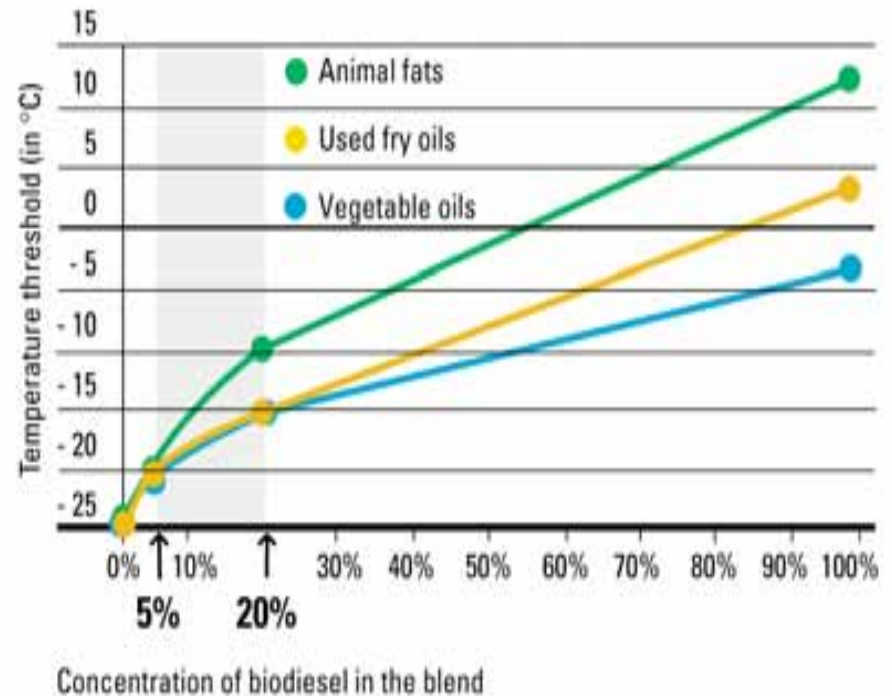
# Eg. Biodiesel - Winter Operations

## • Cloud Point

- Users need to know about Cloud Point
- Critical issue for Canadian fleets

### Cloud Point

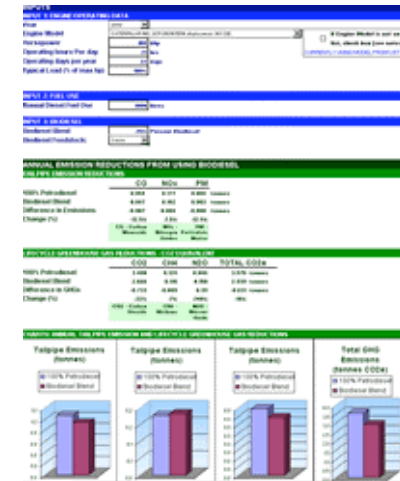
(based on ASTM D 2500)





# #3 - Tools

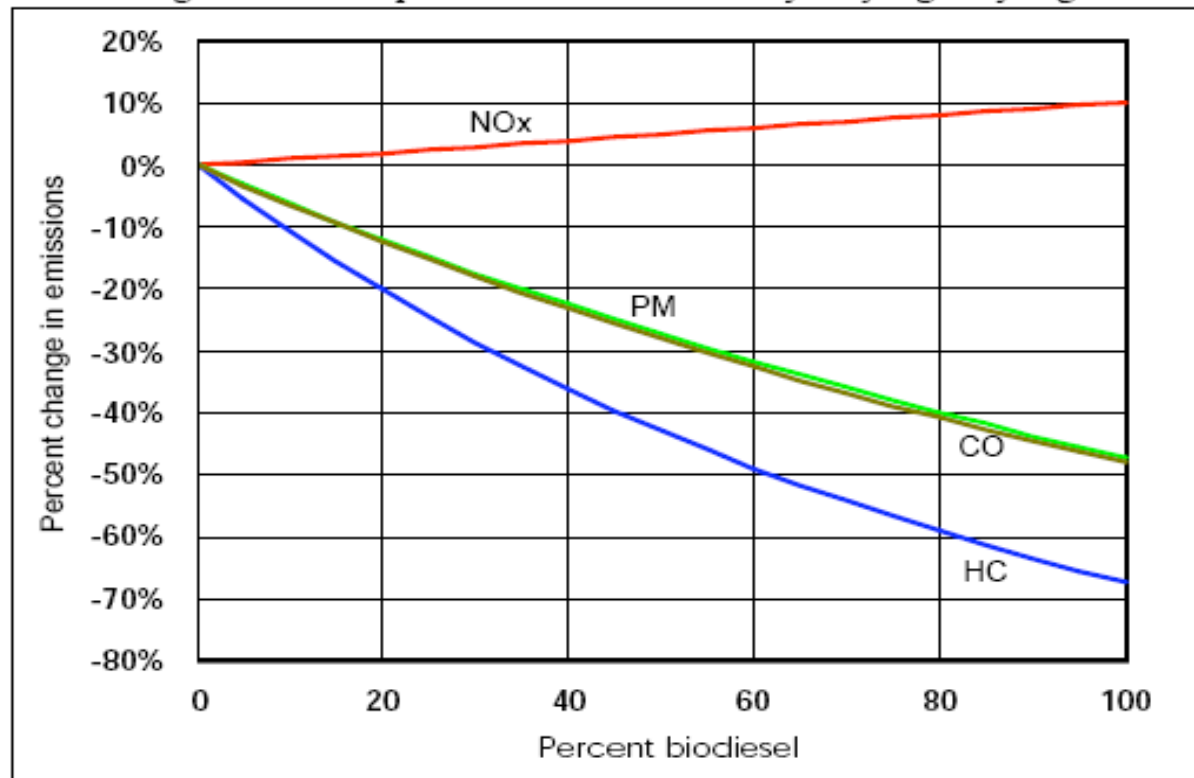
- **Primary Motivator For Fleets?**
  - Emissions Reductions
  - What are the emissions reductions from using biodiesel?
- **BC Strategy**
  - New Emission Reduction Calculator
  - Calculates a fleet's emission reductions
    - PM and GHG's
      - By % of biodiesel, by feedstock
    - Valuable in making business case



# EPA: Emission Reductions



Figure ES-A  
Average emission impacts of biodiesel for heavy-duty highway engines





## #4 - *Demonstration*

- **New Buyers want to know**
  - *“Who else is using Biodiesel?”*
  - *“Who else is using Biodiesel near me?”*
  - *“Who else is using Biodiesel with my type of equipment?”*
- **BC Strategy**
  - Find leadership fleets who would be first adopters
  - BC Municipal Fleets provided key leadership
    - They paid premium prices
    - They shared their experiences with many types of equipment
    - BC Biofleet published their case study
    - Generated confidence, public profile and credibility in biodiesel
  - Result: Contracted for 2 million L of B100



## #4 - *Demonstration*

- **Common, province-wide branding**





## #5 - *Incentives*

- **Rule of Thumb**
  - 90% of buyers who try it once continue buying biodiesel
  - ***BC Strategy – Free Fuel***
    - First Users Incentive Program
      - 30 new fleets tried 1000 L of B100 for *free*
      - 28 still using biodiesel today
      - One new fleet is now using 1 million L/yr
      - Gave suppliers a new sales tool



# ***BC Biofleet Results - Users***

- **50 Fleets Using Biodiesel**

- BC Hydro
- City of Langley Fire Dept
- TSI Terminals
- Rempel Bros Concrete
- City of Vancouver
  - 1000 vehicles on Biodiesel
- Whistler, Delta, New West, Burnaby, North Van





# *BC Biofleet Results - Users*

- **Largest user in BC – TSI Terminals**



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**BC Biofleet**  
Biodiesel. Powered by Nature<sup>®</sup>

# BC Biofleet Results - Distribution

- **Three Bulk Storage Facilities**
  - Vancouver, North Vancouver, Fernie
- **Seven Fuel Distributors**
- **Four Card Locks**
  - Key to trucking market
    - Vancouver (2)
    - Vancouver Island (2)







# ***BC Biofleet Results - Production***

- **One Production Plant**
  - Agri-Green Biodiesel - Fernie
- **Several Other Firms Interested**
- **Key to Future Production - VOLUME**



# ***BC Market To 2010***

- **Market Will Increase Dramatically**
- **More Users Soon**
  - Marine, mining, trucking, movie industry, coach and rail
- **Potentially 100 million litres/yr plus**
  - **B5 – B50 customers**
  - **Several large users and user clusters**
  - **Card lock distribution available in populated areas**



# ***BC Lessons For Canada***

- 1 – Create User Clusters**
- 2 – Acceptance of biodiesel is a lot tougher than you think**
- 3 – Price & supply do matter**
- 4 – It Won't Happen Without Leadership**
- 5 – Time is short**



# ***Lesson #1: Create User Clusters***

- **Market Ramp-up depends on large fleets using biodiesel in volume**
  - Results in investment in supply infrastructure
  - These fleets are B20 – B40 users
  - Prime Goal – *significantly* reduce emissions
    - B20+ achieves Kyoto targets for these fleets
- ***Recommendation***
  - Fleets with a sustainability mandate are likely to be first adopters
    - Local high profile demonstrations are critical
  - Create User Clusters around these fleets



# ***Lesson #2: Acceptance Is Tough***

***“Everyone loves biodiesel until I ask for the order, even though its cheaper than diesel”***

**– BC Biodiesel Supplier**

- Many buyers are still sceptical
  - Many buyers are aware of biodiesel problems in the US and Halifax
  - Many are risk averse even if biodiesel is cheaper
- ***Recommendation***
    - National 5 point action plan like BC’s
      - Adapted to each region



# ***Lesson #3: Price & Supply Matter***

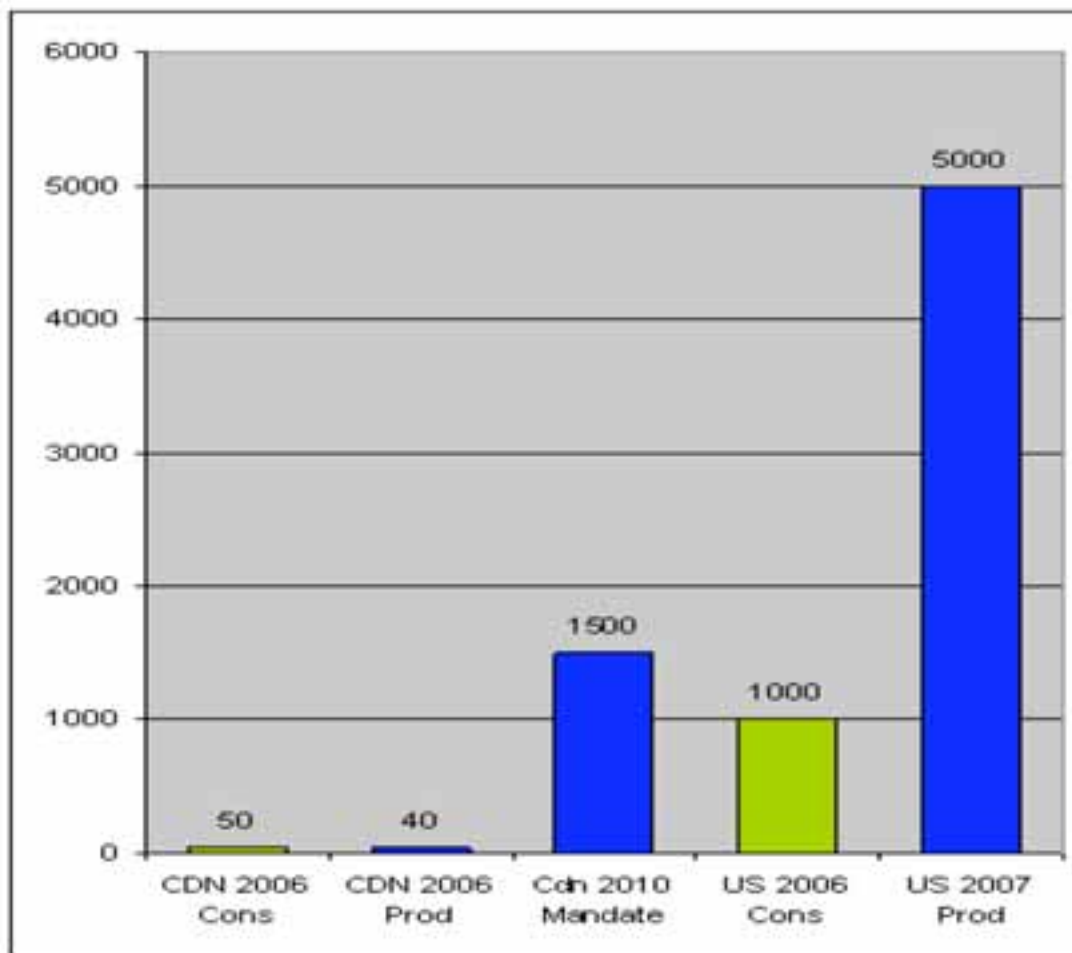
- **Buyers Want**

- Low price fixed price contracts
  - US production capacity will keep prices very competitive
- Supply infrastructure that delivers ASTM/CGSB certified product
  - Supply infrastructure major barrier to biodiesel growth across Canada

- ***Recommendation***

- User Clusters utilize cooperative buying
  - High volumes and multi year contracts will result in suppliers investing in the infrastructure needed to supply
- Provinces provide road tax exemptions to kick start the biodiesel market

# *Biodiesel – Competitive Supply*





## *Eg. BC Tax Information*

*"The biodiesel portion of a blend of biodiesel and diesel is exempt from tax if the biodiesel portion is not less than 5% or more than 50% of the volume of the blend"*

Source: [Government of British Columbia, Ministry of Provincial Revenue](#)





# ***Lesson #4: Leadership Is Vital***

- **Who Will Lead and Manage the Ramp-Up?**
  - Many Agencies in BC
    - Public and Private, Varied interests
    - Common goal: market ramp-up
  - Leadership and pro-active management made the difference
- ***Recommendation***
  - Collaboration under single national management with regional delivery
  - Major funding required to support national program
    - 5 year program, \$5 million/yr required to do the job right



# ***Lesson #5: Time Is Short***

- **5 Years To 2010**
  - BC has shown that a Ramp-up Strategy can work
  - It takes time and lots of ground work
  - Much work yet to be done in BC
  - Not a lot of time left at national level to ramp-up a market
- ***Recommendation***
  - Key organizations meet and agree on a Leadership and Management model
  - A single organization should lead
  - Funding is key to supporting the model



## ***Conclusions: Future is Bright***

1. Great potential for canola as market growth will allow for Canadian production
2. The B5 – B50 market is very big and will precede a national mandate
3. Market ramp-up strategy works
4. Canada wide market ramp-up necessary pre-condition to industry servicing a successful Renewable Fuels mandate



# ***BC Biofleet – Thank You!***

