

Dry Cleaning Pollution Prevention Projects

**Canadian Pollution Prevention Roundtable
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Overview

- Dry Cleaning Industry in Canada
- The Original Green Clean Project
- Green Cleaning Revisited
 - Survey Results
 - Green Clean Website
- Sosei Water Pilot Project
- Questions



Dry Cleaning Industry in Canada

- Estimated 3120 cleaners in Canada
- Over 1600 cleaners located in Ontario
- Small Businesses:
 - 68% of the cleaners had revenues of <\$200 000 in 2000
 - Labour intensive sector
- Sector employs close to 15 000 workers
- In 2000 the sector generated revenue of \$800 million



P2 Issues with Dry Cleaning

- Tetrachloroethylene (aka Perc)
 - > 80% cleaners use Perc
 - over 3740 Perc machines
 - Viewed as most competitive solvent in industry with over 2500 tonnes used in 2000
- Contaminated waste water and residue disposal
- Very small business owners
 - lack of resources, language barriers, traditions and perceptions



Tetrachloroethylene Regulation

- Tetrachloroethylene (Perc) was assessed as toxic, based on its potential to harm the environment
- Law promulgated March 15, 2003
- Key components of regulation to be met by January 2004
- Expectation that Perc use will decrease by 71% from 5500 tonnes in 1994 to 1600 tonnes by August 2005



Impacts to the Industry

- Approximately 30% of industry will disappear in Canada
- Cost impacts on industry:
 - Replacement or retrofit costs of equipment
 - treatment or disposal of waste water
 - additional tracking and transporting of residue
- Level playing field for all cleaners
- Opportunity for alternative technologies to be introduced



The Green Clean Project

- Voluntary P2 initiative started in 1994
- Explored water based cleaning as an alternative to non-aqueous solvents at 12 cleaners
- Partnership between Korean Dry Cleaners Association, Ontario Fabricare, Environment Canada, Ontario Ministry of the Environment
- Three phased project:
 - Phase 1: Green Clean Trial
 - Phase 2: Green Clean Extension
 - Phase 3: Green Clean Facility



Green Clean Project - Results

- Consumer acceptance was positive
- Financial indicators illustrated wet cleaning was economically viable
- Many garments previously dry cleaned could be successfully wet cleaned
- Wet cleaning a more favourable technology for reducing environmental impacts
- Wet cleaning results in releases of products like surfactants, phenols, bleaches, and oil and grease to sewers



Green Clean Project Revisited

- How far has “green” cleaning come since the Green Clean Project began?
- Have wet cleaning techniques expanded throughout Ontario?
- What other P2 initiatives have been achieved by cleaners?



Survey Methodology

- Survey developed and administered by C2P2
- Mailed out surveys to over 1600 dry cleaners in Ontario in May 2002
- Survey posted on website for cleaners to submit electronically
- Incentives for completing the survey:
 - All respondents received environmental savings coupon book (EcoLogo Products)
 - Draw for prizes donated by Environment Canada, Diversey Lever, Miele, Ontario Fabricare Association



Survey Stats

- 23% were returned undeliverable
- 206 completed survey's were returned
 - 16.7% response rate
- Surveys returned by:
 - mail (64%), faxed (28%), online (6%) and over the phone (1%)
- Phone follow up campaign
 - 117 phone calls resulted in an additional 13 surveys returned
- Lowest response was from Greater Toronto area, highest was from Ottawa area

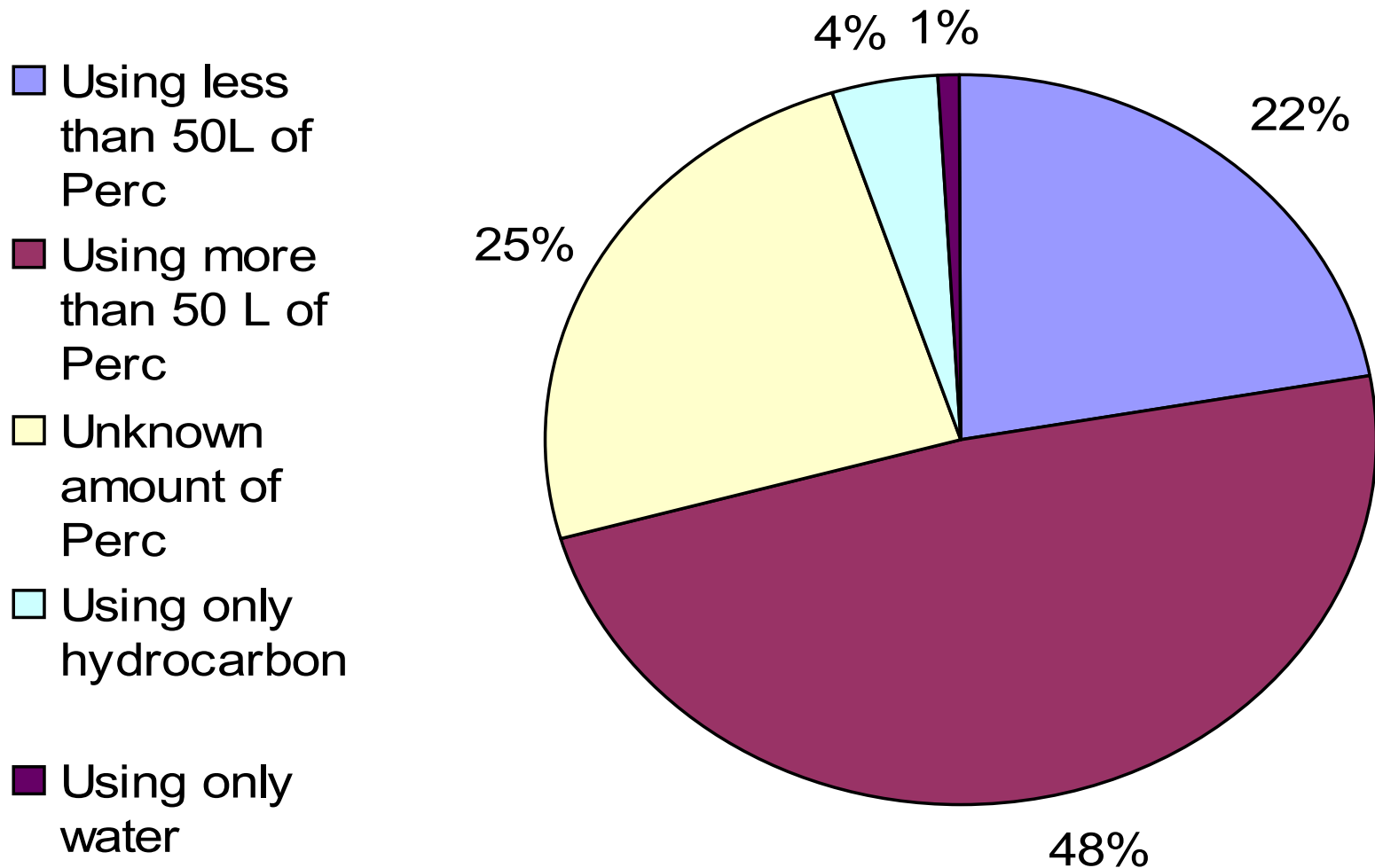


Survey Design and Results

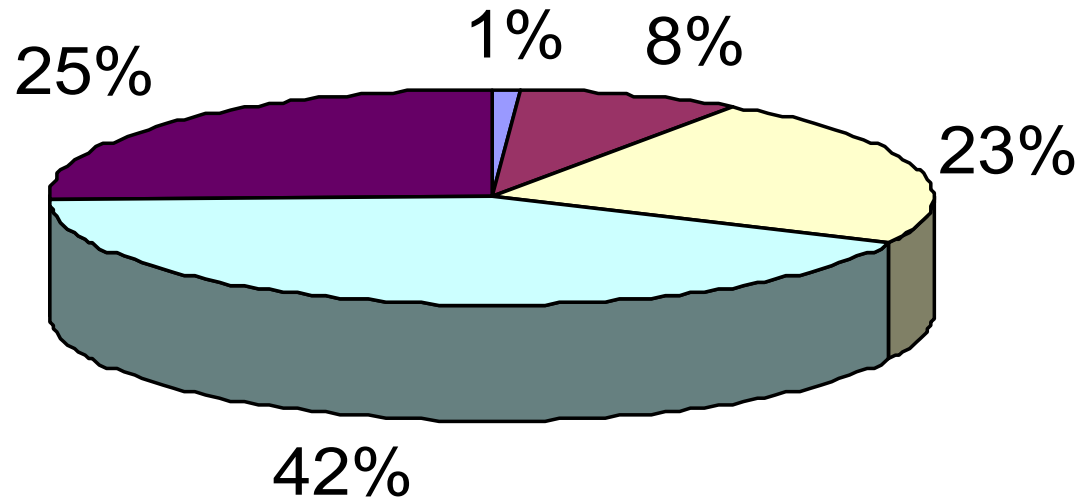
- Survey organized into 5 sections including:
 - Company Information
 - Solvent Use in Facility
 - Environmental Management Issues
 - Alternative Dry Cleaning Methods
 - Environmental Issues



Dry Cleaners Solvent Usage



Alternative Cleaning Methods



100% Wet Cleaning

Greater than 50% wet cleaning

Approximately 50% wet cleaning

Less than 25% wet cleaning

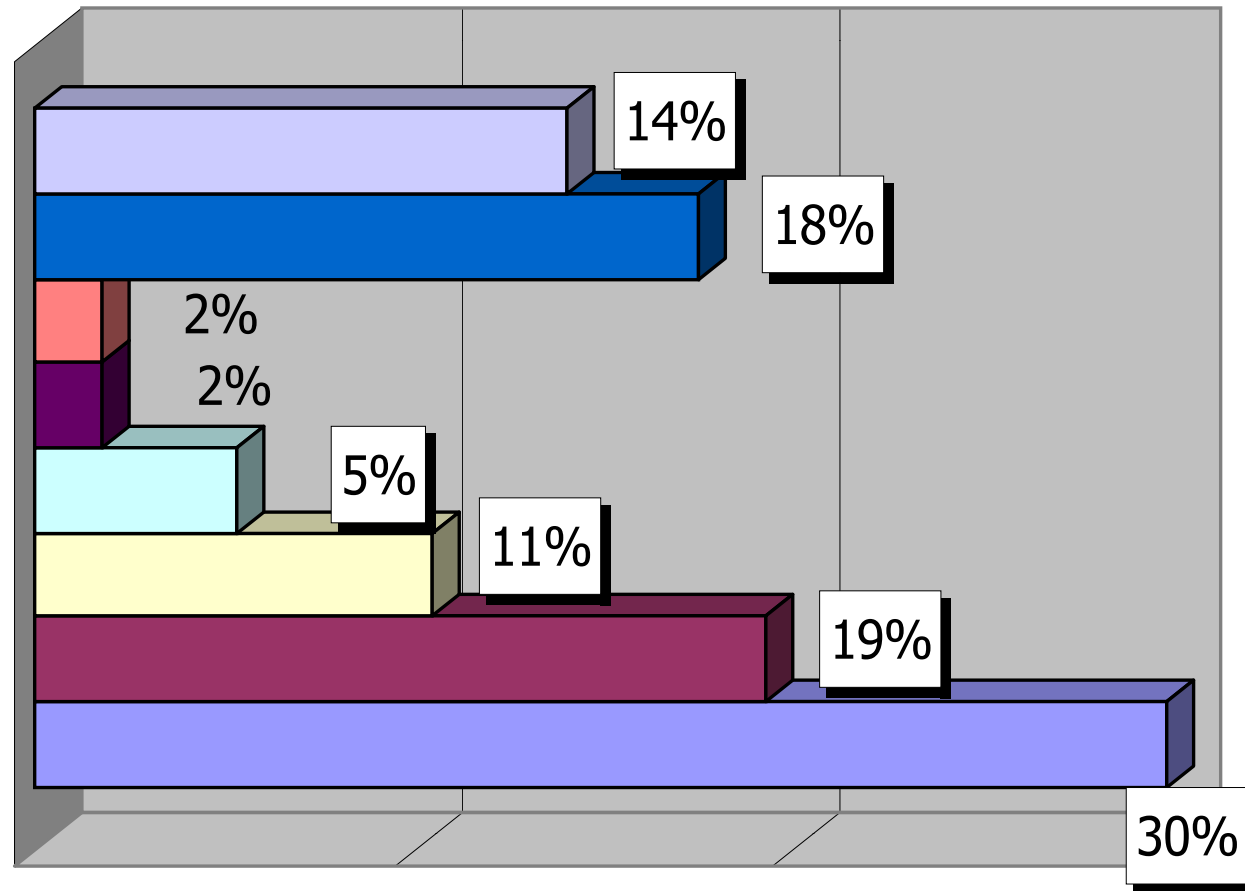
Not using wet cleaning



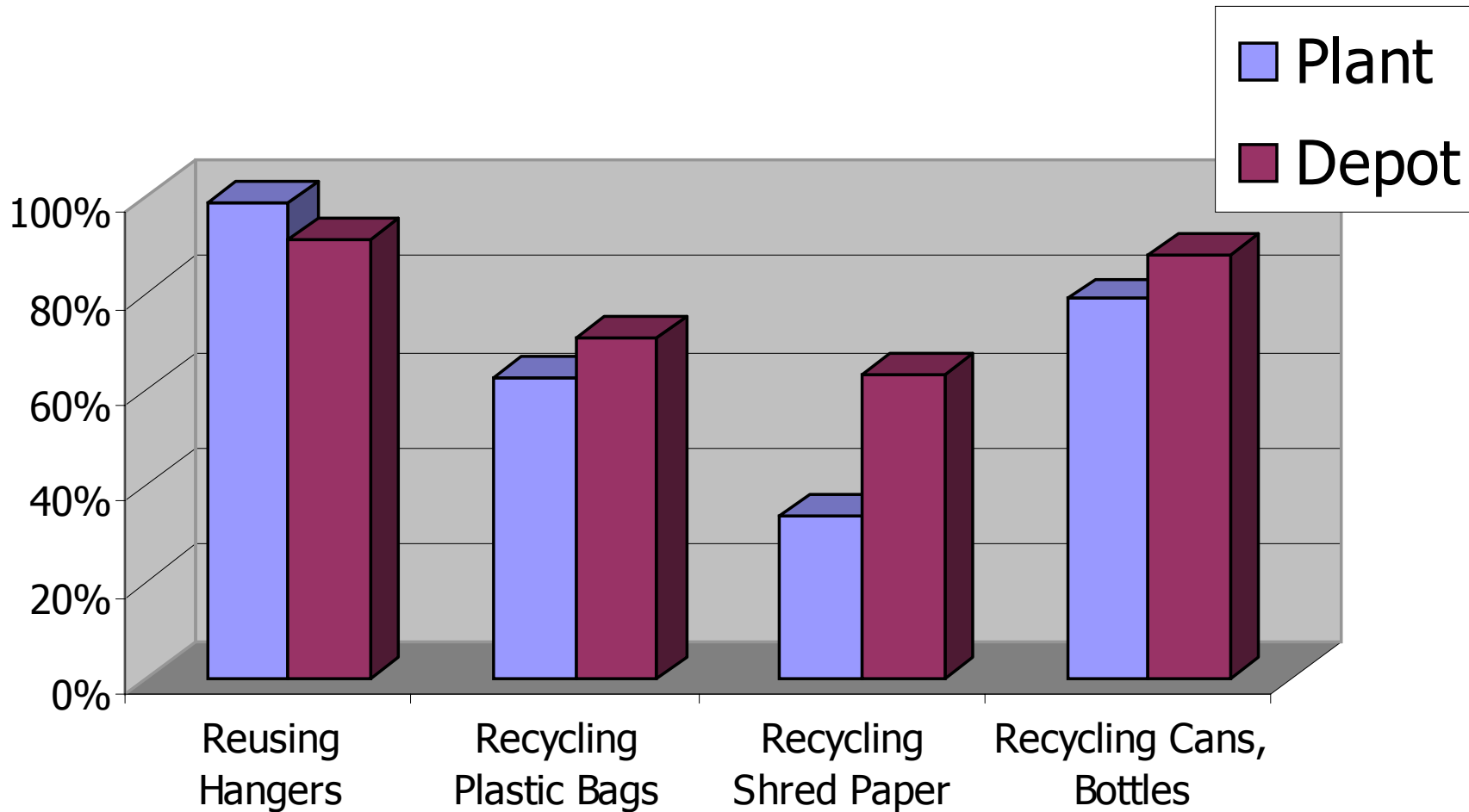
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Considering the Alternatives



Environmental Initiatives



Interesting Comments

- 18% of respondents provided comments
- Need subsidies and grants from government
- Too expensive to meet requirements
- Stronger laws – consistently applied
- “Wet cleaning results in more pollution than PERC”
- Industry should raise prices – “cleaners charging low rates are cutting corners”
- “Stains that go down the drain in wet cleaning are hazardous”



Lessons Learned

- Cleaners have little time to address non-essential issues
- Language communication barrier
- Trust factor
- Knowledge of Ontario Regulation higher than Federal Regulation
- Poor record keeping
- Comprehension of survey questions
- Involving Fabricare associations



Survey Outcomes

- Need for an education campaign
- Two target groups:
 - Ontario dry cleaners and general public
- Strengthen relationship with Fabricare association
- Most important outcome of the survey – creation of the Green Clean website

www.c2p2online.com

Click on Affiliated websites / Green Dry Cleaners



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May 13, 2003

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Green Dry Cleaner

Many Ontario dry cleaners are taking small measures such as improving operating practices, modernizing equipment, changing dry cleaning solvents or initiating recycling programs with the intent of protecting the environment of the communities they operate in.

Green dry cleaners are offering consumers environmentally preferable cleaning processes such as cleaning clothes in water instead of solvent (wet cleaning) as well as:

- phasing out the use of perchloroethylene
- collecting and reusing hangers
- recycling plastic bags

Click [here](#) to find a green dry cleaner near you.



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Green Clean Website

- Information and resources for dry cleaners in Ontario
 - Regulations, Environmental Codes, Best Management Practices
 - Wet Cleaning and Other Alternative Processes
 - Training Programs, Success Stories, Contacts
- List of cleaners who offer alternatives to Perc
 - up to 150 cleaners
- Since going live in Oct 2002 the site has had almost 2000 hits



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Ontario Green Dry Cleaners List

Found 25 (Displaying 5)



Ontario Green Dry Cleaners List - Hamilton and area

Spotless Dry Cleaners

977 Golf Links Road (inside Sobeys)
Ancaster

905-648-7960

Spotless Dry Cleaners

50 Market Street South (inside Sobeys)
Brantford

519-

Burlington Dry Cleaners

427 Brant Street
Burlington

905-333-3522

Burlington Dry Cleaners

4021 Upper Middle Road
Burlington

905-336-1775

Burlington Dry Cleaners

516 Plains Road
Burlington

905-637-1702



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Green Cleaners – Next Steps

- Continue to update database when cleaners submit completed surveys
- Update and add new resources/information
- Promote the site and Canadian success stories
- Respond to inquiries from public
- Investigate and promote new technologies
- Expand website to a national scope



Sosei Water Pilot Project

- Partnership: Sosei World, Our Dry Cleaners and Environment Canada
- H1 Water Maker technology installed at Our Dry Cleaners in Barrie, Ontario
- Evaluate Sosei system for incorporation in North American cleaning facilities



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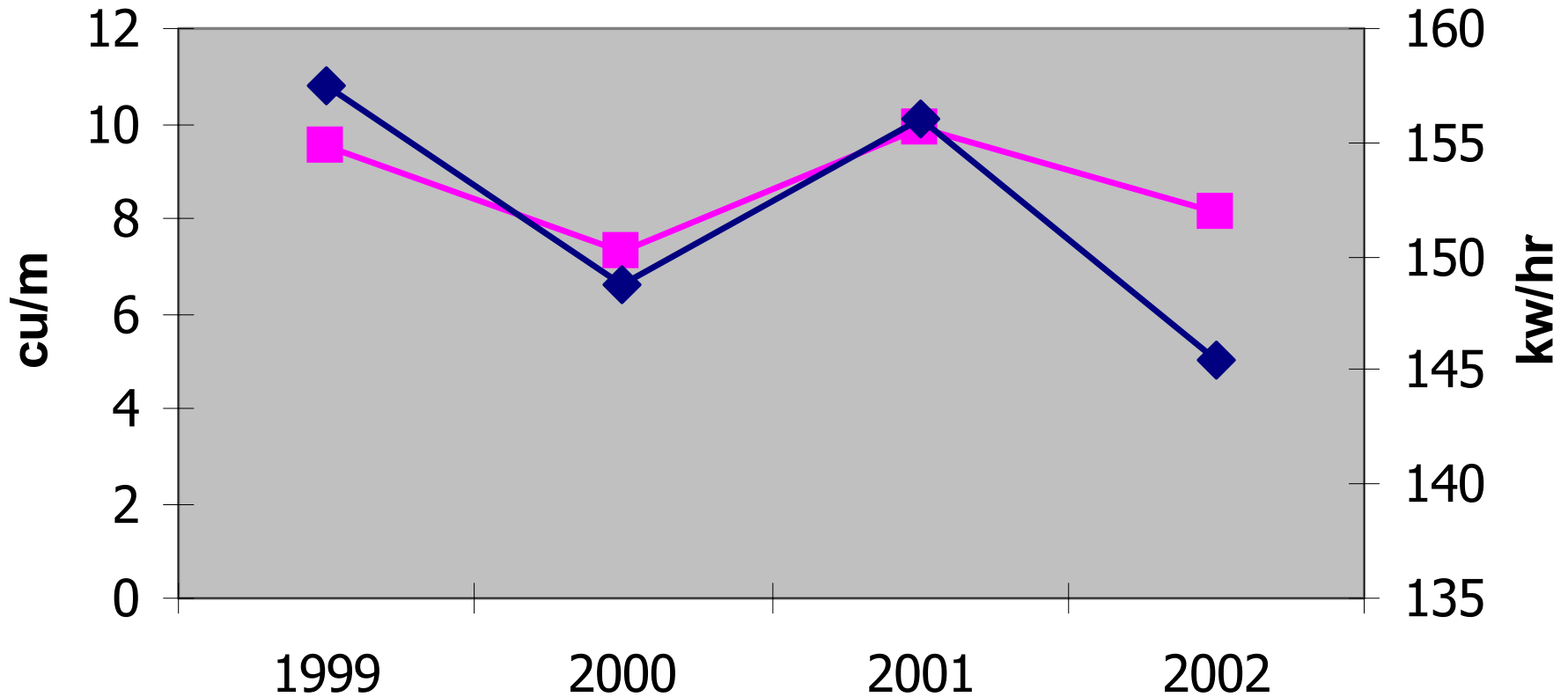
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Issues/Barriers Encountered

- Overcoming North American perceptions – increased water and utility usages
- Canadian cleaners do not feel that wet cleaning is a total substitute for Perc
- Some garments are better cleaned with Perc
- Maintaining customer satisfaction at a competitive cost
- Perception of increased finishing costs



Sosei Results So Far



—■— Water Consumption (cu/m) —◆— Electrical Consumption (kw/h)



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Keys for Successful Implementation

- Must demonstrate that:
 - Sosei Water cleans garments to customer satisfaction at a competitive cost to the consumer
 - maintaining utility and finishing costs
- Detergent, bleach, conditioner, softener additives are reduced or eliminated
- Break down perceived barriers that inhibit:
 - the acceptance of wet cleaning
 - the acceptance of Sosei Water as a cleaning technology



Future Initiatives with Cleaners

- Continue to provide P2 information to Ontario cleaners
- Expand Green Clean website to national scope
- Compliance Promotion for the new Tetrachloroethylene Regulations
- Educate cleaners and promote successes to encourage others to adopt Sosei technology



Green Clean Contacts

Who to call for more information:

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