



ENERGY STAR: News from Canada

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Natural Resources Canada
*Canada's federal department of energy***



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Outline

- Context
- ENERGY STAR Equipment Program
- Program Impact
- Bringing it all Together
- Future Directions





Setting the Context



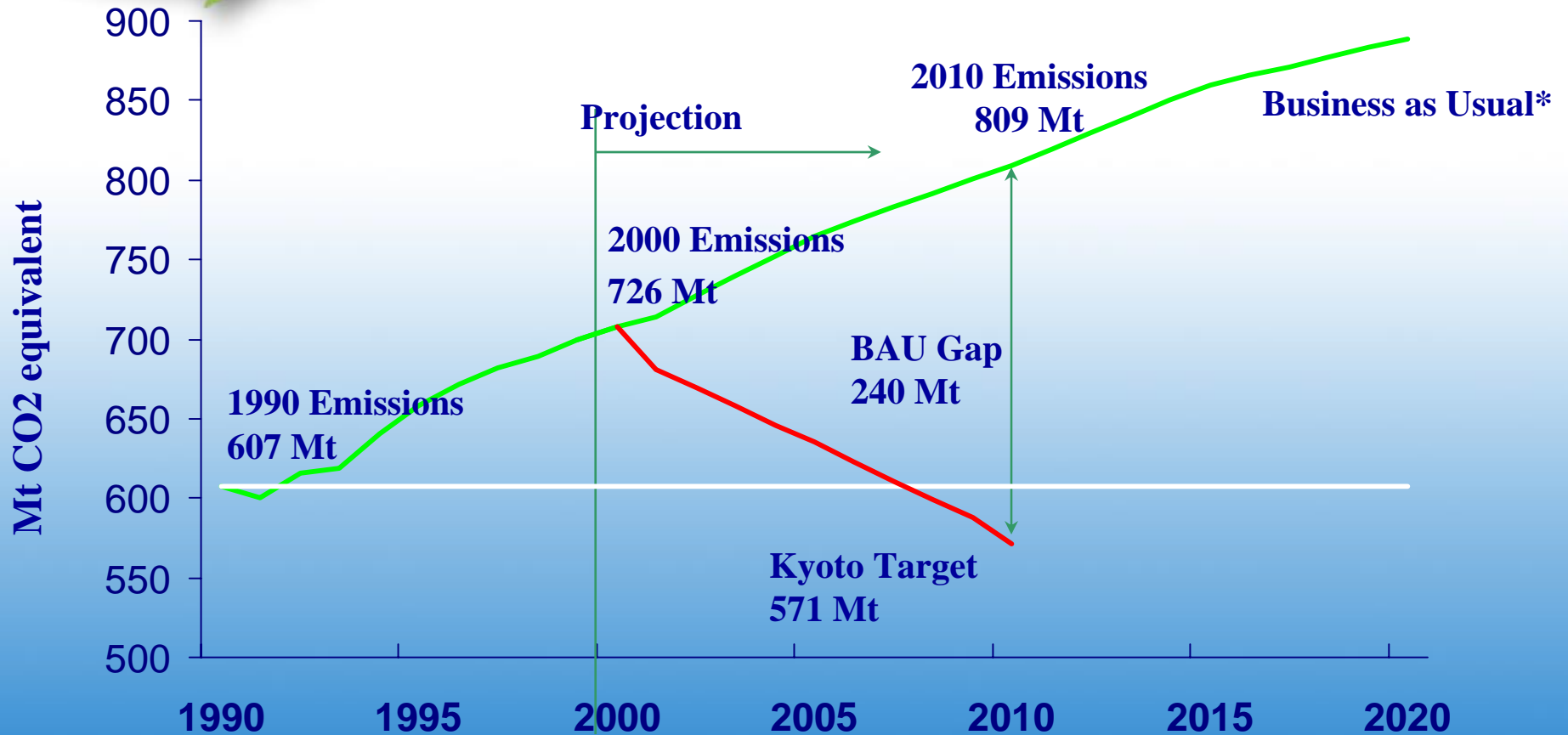
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The Challenge - Canada's GHG Emissions and the Kyoto Protocol



*Business-as-usual scenario factors in an estimated 60 MT of reductions from current voluntary measures



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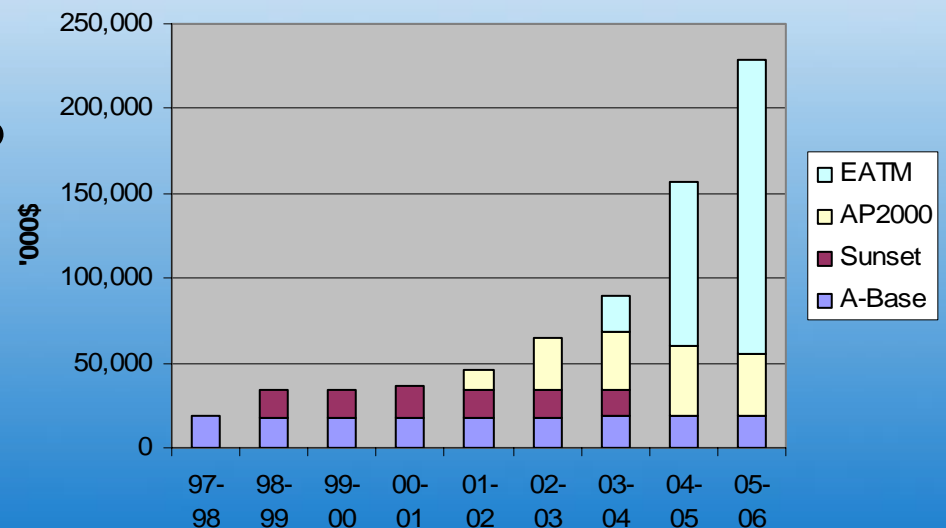
The Office of Energy Efficiency (OEE)

- **Mandate**

- The OEE is mandated to renew, strengthen and expand Canada's commitment to energy efficiency in order to help address the challenges of climate change, with specific emphasis on the Kyoto Protocol.

- Energy Efficiency a shorter term strategy to reaching Kyoto
- Targets all energy consumers and producers and emphasizes partnerships and economic investments

OEE Budget 1997-2005





OEE Programs

- The OEE is involved in all major energy end-use sectors:
 - Residential
 - Commercial/Institutional
 - Industrial
 - Transportation
- For each of the four sectors, the OEE has developed a strategy that applies a mix of policy instruments.





Our Mission

« Overcoming the obstacles to adoption of EE »

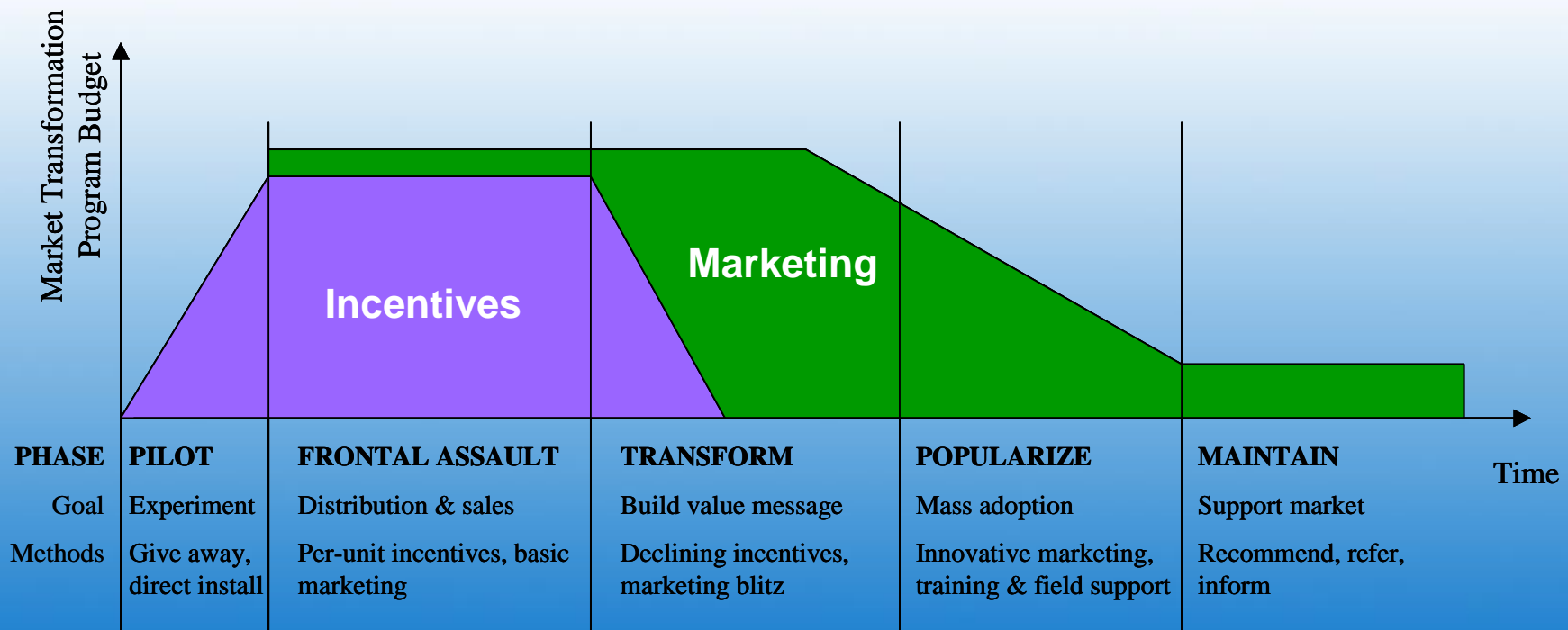
Obstacles to adoption stemming from the lack of...

- *Availability* of...
 - *Awareness* of...
 - *Accessibility* to...
 - *Affordability* of...
 - *Acceptability* of...
- ... energy-efficiency technologies and practices.





Program Design Strategy





Built Environment Areas of Intervention

- **New Housing**
 - R2000
 - EnerGuide for New Houses rating initiative
 - ENERGY STAR for new houses
- **Existing Housing**
 - EnerGuide for Houses / Retrofit Incentive
- **New Buildings**
 - Commercial Buildings Incentive Program
- **Existing Buildings**
 - Energy Innovators Program
- **Equipment and Appliances**
 - Standards and regulations
 - EnerGuide
 - ENERGY STAR





One Tonne Challenge

- Created to encourage individual Canadians to take action and reduce greenhouse gas emissions by 20 percent or one tonne
- Integrated social marketing program (delivered with Environment Canada) - tangible goal, links to programs
- National marketing campaign to build awareness/foundation for action – advertising/product;
- Community-level activities – challenges, local projects
- Investments in youth initiatives/education tools
- Partnerships:
 - Joint promotional campaigns/initiatives to engage, provide prompts and address barriers
 - Employee awareness tools





ENERGY STAR® Equipment Promotion Programs



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What is the Cdn ENERGY STAR initiative?

- Introduced in 2001, arrangement with US EPA and US DOE allows Canada to market and promote symbol.
- OEE is lead for ENERGY STAR and coordinates with Canadian organizations to promote the initiative.
- Canada promotes specific product categories where levels and criteria can be harmonized – though Canada does not promote all of the products and promotional initiatives supported by US ENERGY STAR. Some products not promoted because of climatic, language or regulatory concerns.





Promoting ENERGY STAR in Canada

- Canada promotes certain products in following categories:
 - Major appliances
 - Heating, cooling and ventilation
 - Consumer electronics
 - Office Equipment
 - Windows and Doors (Canada levels)
 - Some lighting (not fixtures)
 - Some commercial equipment
- Canadian Lead in development of new criteria






Promoting ENERGY STAR in Canada

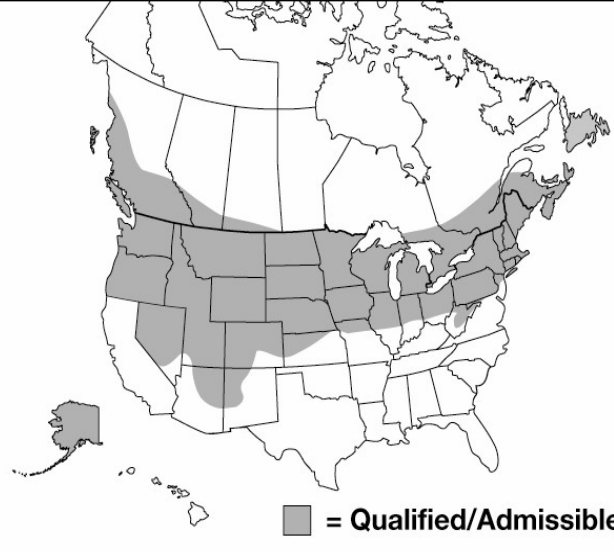
- Focus on some products based on Canada's predominantly heating climate
 - Introduced Canadian zones for windows, doors based on a harmonized compliance regime for US and Canada

Qualified for highlighted area.
Répond aux exigences pour les régions indiquées.

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1-800-387-2000
energystar.gc.ca



ENERGY STAR
U.S. / É.U.
1-888-782-7937
energystar.gov



■ = Qualified/Admissible





Program Impact

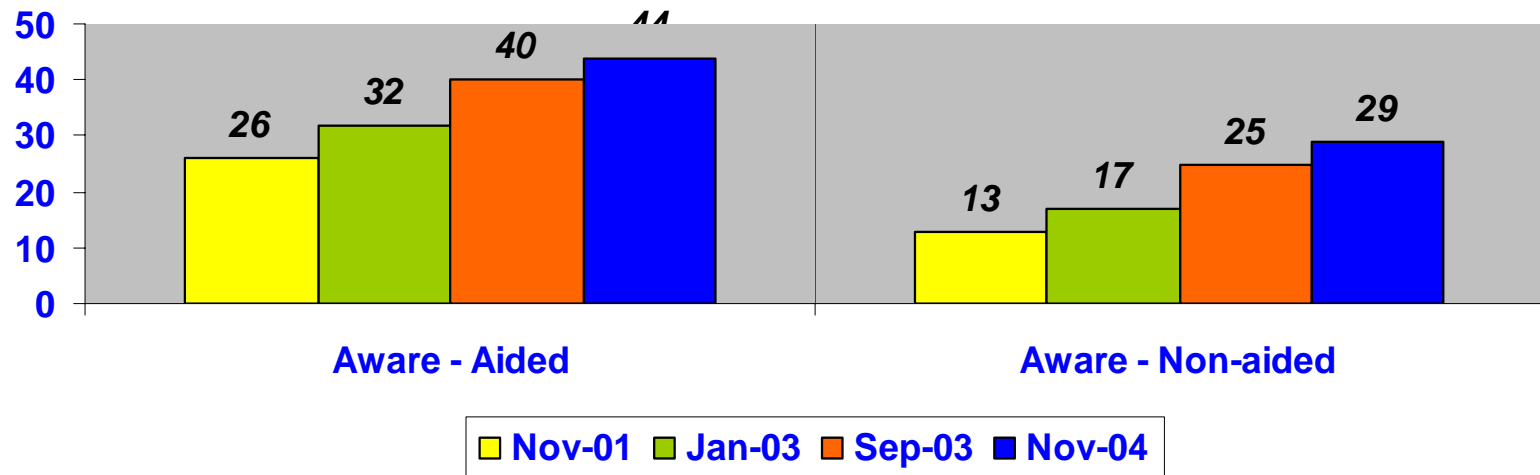
- ENERGY STAR levels extensively used for establishing rebates and incentive programs across Canada
- Over 140 organizations registered with Canadian ENERGY STAR
 - Annual Meeting to share experiences and discuss future
- Integration with other OEE programs





ENERGY STAR® Awareness

Awareness levels of ENERGY STAR in Canada (%)



Now, I would like to read you a description of the ENERGY STAR symbol. ENERGY STAR is either the word 'energy' followed by a large star underneath a curved line in one colour, or the top half of the earth in full colour behind the word 'energy' and a large star. The words 'High Efficiency' may appear underneath. Do you recall seeing this symbol ?

Have you heard or read or seen anything about ENERGY STAR ?



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Pilots with gas utilities to promote ENERGY STAR qualified gas furnaces and boilers 2002-2005

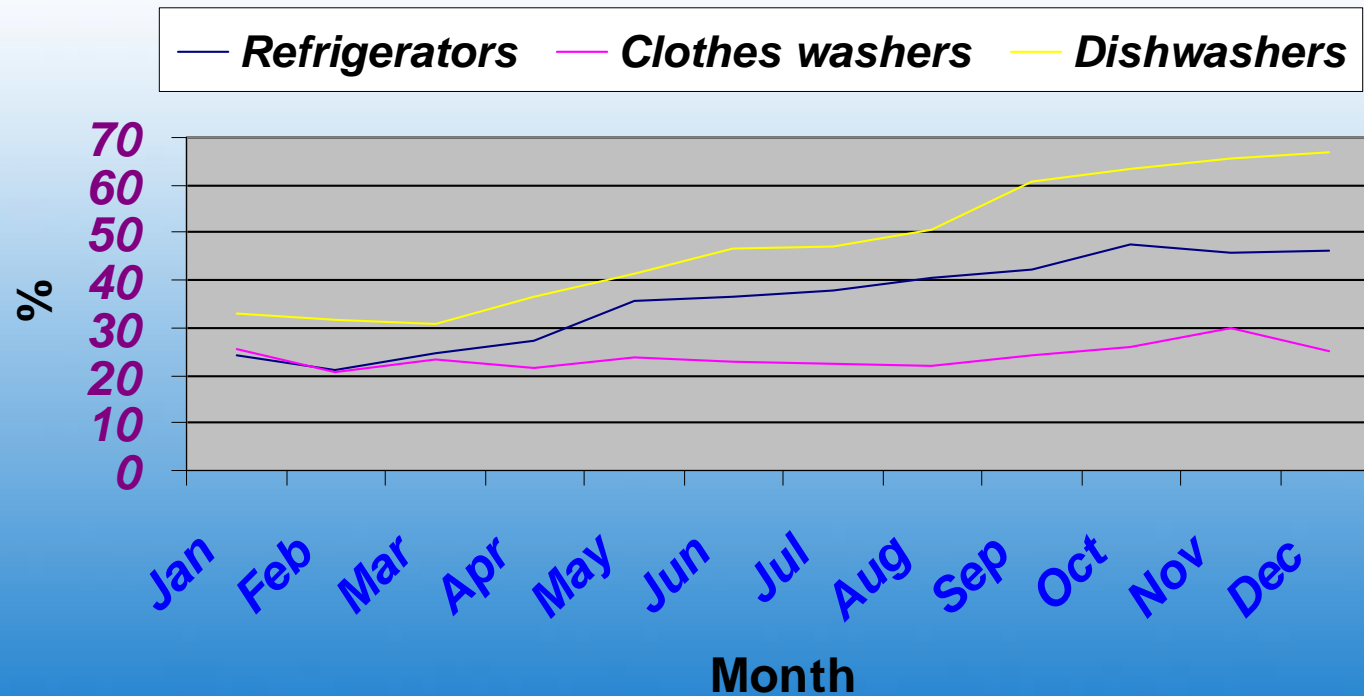
- 57,365 high-efficiency furnaces/boilers incented
- Utilities' contribution: \$12,2M - NRCAN contribution: \$8,0M
- Some utilities doubled number of rebate/loan recipients with NRCAN participation. Coupon delivery by manufacturer sales teams helped.
- ECM motor incentives: take-up higher than estimated - 50% of furnaces where it was offered
- Barriers to gas market development in Maritimes: awareness, accessibility, acceptance.





Shipments of ENERGY STAR qualified appliances in Canada - 2003

% of ENERGY STAR qualified appliances, as a % of total category sales in Canada in 2003





Addressing the Barriers

- Various instruments: rebates, collaborative incentives, low-cost loans, promotion, training, demonstrations, awareness.
 - Demonstrating technology: traffic signals, interval metering
 - Manufacturers' offers: rebates, parts and labour and extended warranties
- Participating Utilities/Lead Organizations:
 - Electric and gas utilities
 - Publicly funded organizations; all levels of government
 - Retailers, Manufacturers, Distributors
 - Trade Associations
 - Environmental Organizations





Lessons Learned to Date

- Program design model: use tools according to stage of market transformation:
 - Pilot projects for technical development
 - Incentives, promotion, marketing where market penetration is low
 - Remove incentives at higher penetration rates, continue education and training; enhance marketing support
- With high market penetration, focus on direct marketing rather than financial incentives, and ultimately consider a regulated standard
- Stronger commitment to energy efficiency from distribution channels, starting with sales force





ENERGY STAR Issues for Canada / Differences from US

- Uni-lingual label in an officially bilingual country
- Sovereignty
- Program Ownership
- Regionally-specific criteria – Climate
- Participant vs Partner
- Impact – attribution - administrative
- Delivery issues different – Canadian utilities do not have public benefit charge – expected that public sector is initiator of initiatives, therefore big on partnerships and cooperative activities to achieve





Bringing it all Together



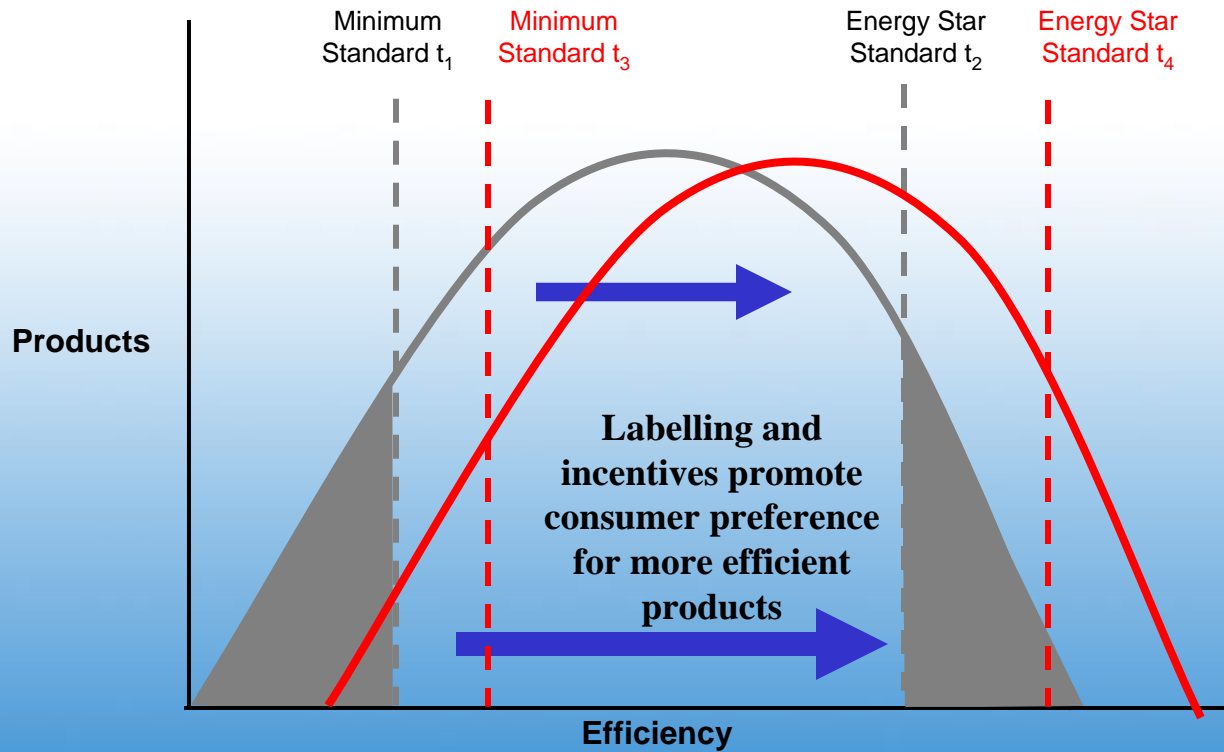
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Transforming the Market





Overall Strategy

Informed
Choices

Promoting the
best

Eliminating
the worst

EnerGuide

(comparative)
Information and suasion

ENERGY STAR

identification and promotion of
best performers

Regulations

minimum energy
performance; test standards,
compliance

Consumers
demand/Producers
supply increased range
of ee products

Benchmark for
incentive and promo
programs by
organizations, utilities
and provincial
governments

- Covers 85% of energy use in home.
- Estimated to reduce GHGs by 25 MT by 2010





Moving the Market Activities

- Marketplace interventions
 - LED Exit Signs commercial retrofits
 - Top up for targetted equipment (boilers, premium T8, GSHP installation)
 - Smart metering
 - Service water
 - Stand-by
 - Condensing Technologies





Equipment Standards and Regulations

- **Development of minimum energy efficiency standards and regulations**
- 32 regulated products in all sectors of the economy
- More prescribed products than anywhere else in the world
- Impact of Regulations from 2000-2005 will result in 2.32 Mt of CO₂ savings, or 26.65 PJ of energy savings in 2010.





Equipment Standards and Regulations – Agenda for 2005

- Commercial Reach-in Refrigeration (E* levels)
- Beverage Vending Machines (E* levels)
- Packaged Terminal Air Conditioners, Central Air Conditioners, Large Air Conditioners, Ground Source Heat Pumps





Equipment Standards and Regulations – Next Steps to 2010

- Residential Equipment
 - Gas Furnaces (E* and report electrical) Gas Fireplaces (minimum FE), labelling Water Heaters, Wine Chillers (C.E.C.), HRV, Refrigerators (E*), Dishwashers (E*), Set-top Boxes (E*), External Power Supplies (E*)
- Commercial Equipment
 - Unit Heaters, Traffic Signals (E*), Icemakers (CEE/California), Clothes Washers (E*), Large Package AC (20-63 ton), boilers
- Lighting
 - Lamp labelling, Torchieres (E*), BR Lamps, HID Lamps





One Stop Shop

- EnerGuide, ENERGY STAR, Regulations and Compliance all within same group
- Reporting done once for all products, thereby reducing reporting burden on Manufacturers
- One database accessible for all program deliverers across Canada





Future Directions



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Future Directions – ENERGY STAR in Canada

- ENERGY STAR in Canada to continue maintaining and adding products to the Canadian roster.
- Continue positioning program as the leading driver in establishing high efficiency levels and influencing marketplace.
- Work with US EPA on development of new, and upgrade of existing, eligibility criteria and levels for a range of products.
- Pilot ENERGY STAR for new homes using Canadian EnerGuide evaluation (similar to HERS) in Ontario in 2005 and Canadian wide implementation in 2006





Thank you

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