

A CANADIAN PERSPECTIVE ON THE FUTURE OF ESCO FINANCING

ESCO Europe 2014

Barcelona, Spain

January 23, 2014



ENERGY SERVICES
ASSOCIATION
OF CANADA

PROMOTING
PERFORMANCE
BASED SOLUTIONS

TOPICS TO BE COVERED

- Background on EPCs in Canada & ESAC
- Constraints/Bottlenecks
- Market Enables
- Opportunities
- Discussion



ENERGY SERVICES ASSOCIATION OF CANADA

- Incorporated August 2010
- 8 founding independent energy service companies



- Represent >90% \$400 million/year market for guaranteed Energy Performance Contracts (EPC)



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NORTH AMERICAN SPECIFIC BARRIERS AND NON-BARRIERS

Barriers

Cost of Natural Gas
(\$4 vs \$12/MBTU)

Cherry picking low
hanging opportunities

Do It Yourself attitudes

Non-Barriers

Energy security
Availability of funds



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MARKET ENABLERS (1)

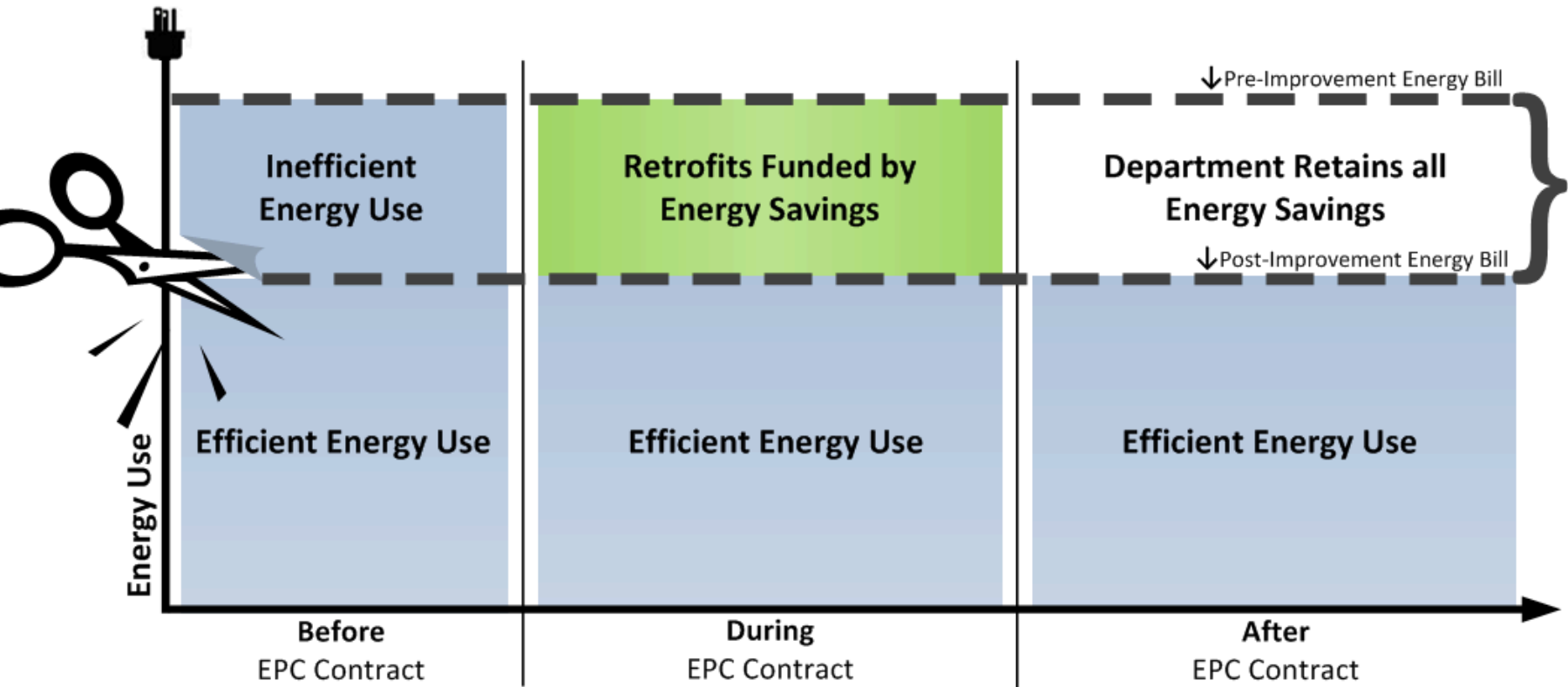
Make improvements visible

celebrate openings, anniversaries, milestones,
completion

Communicate results with real time monitors,
displays in lobbies

MARKET ENABLES (2)

Illustrating how an EPC works



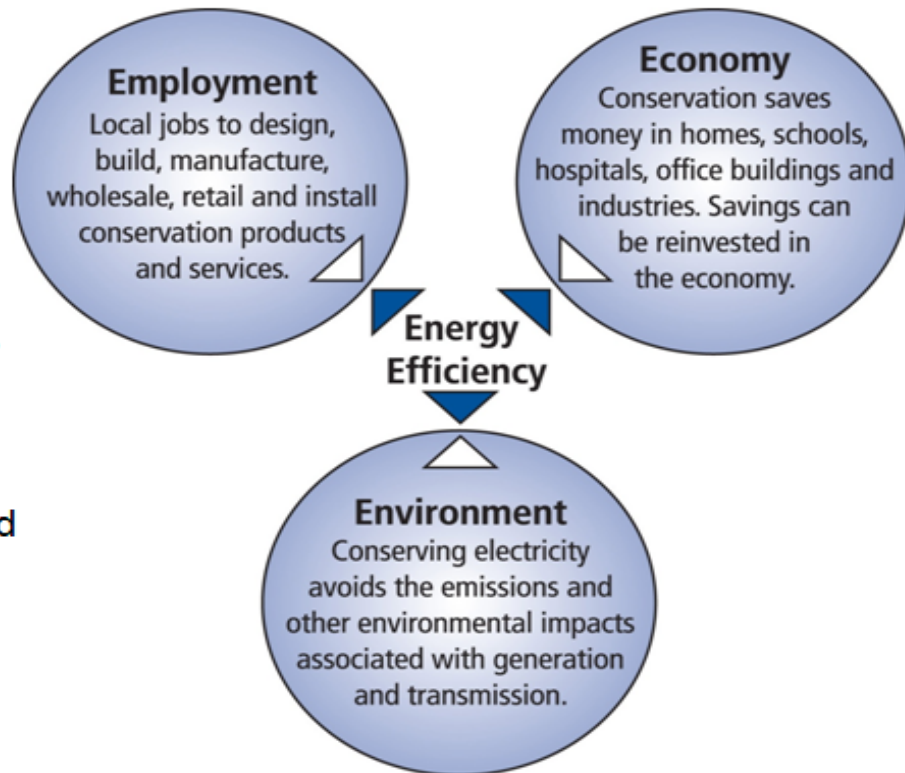
MARKET ENABLES (3)

Communicating benefits

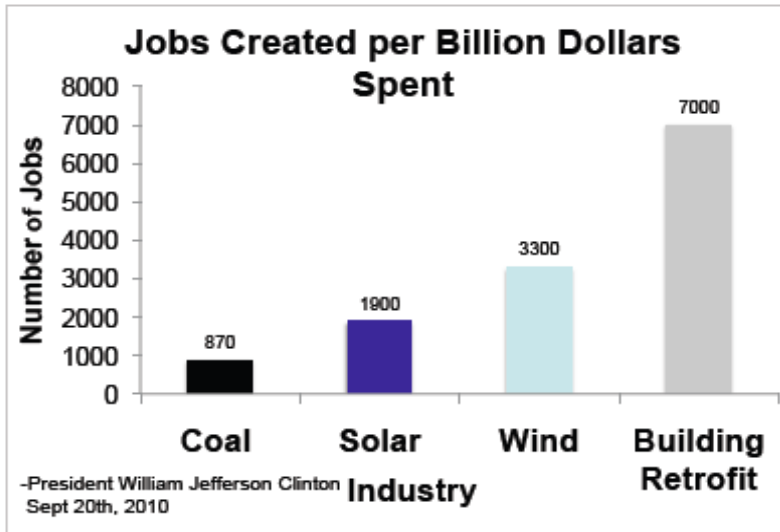
Benefits of Conservation

The Three “Es”:

- **Employment** benefits: labour-intensive, local jobs
- **Economic** benefits: cost-effective for households and makes private sector more competitive
- **Environmental/health** benefits: reduced GHGs, acid rain, smog



EMPLOYMENT BENEFITS



Empire State Building Retrofit:

- 8 month design phase, 60 ideas considered, 8 projects (financial and environmental ROI).
- 3.1 year payback
- Initial \$20 million, 38% energy reduction, \$4.4 million savings annually.
- Creation of hundreds of jobs

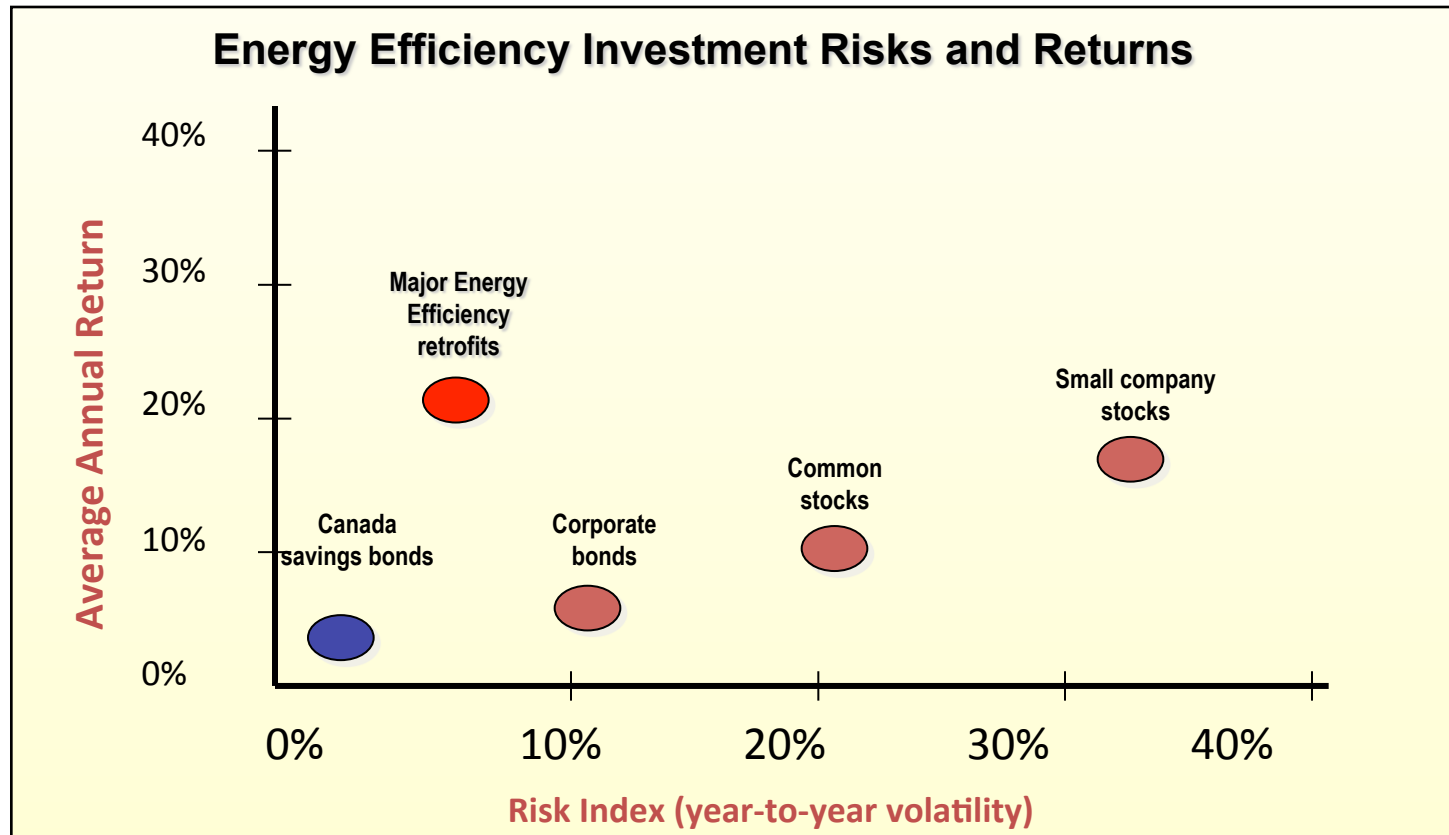
www.esa.ca



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ENERGY EFFICIENCY RETROFITS ARE GOOD INVESTMENTS



Source: adapted from Ehrardt-Martinez, Karen and John 'Skip' Laitner: « The Size of the U.S. Energy Efficiency Market: Generating a More Complete Picture ». Washington, D.C., American Council for an Energy Efficient Economy, May 2008, page 29.



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ENVIRONMENTAL BENEFITS

- IPCC – Most of the observed increase in the globally-average temperature since the mid 20th Century is *very likely* (i.e. > 90% likelihood) due to the observed increase in anthropogenic (i.e. man made) GHG concentrations
- IEA -rising fossil-fuel energy use will lead to irreversible and potentially catastrophic climate change
- Ban Ki-moon - slowing or even reversing the existing trends of global warming is the defining challenge of our ages.
- World Economic Forum's - climate change has the highest combined perceived impact and likelihood
- **82% of Canada's man-made green house gas emissions come from the production and use of energy.**



OTHER BENEFITS OF GOING GREEN

- 93% reported greater ability to attract talent
- 81% saw greater employee retention
- 87% experienced improved workforce productivity
- 75% reported improvement in employee health
- 100% experienced increase in goodwill/brand equity

Source: McGraw Hill “Business Benefits of Green Buildings”.









MARKET ENABLES (4)

- Understanding the benefits of EPCs
 - Turnkey – one contract managing many activities
 - Releases pressure on capital funding allocations
 - Tried and true approach – used by organizations across Canada since 1993
 - **Less expensive than alternatives when all staff/management costs included**



EPC NOT MORE EXPENSIVE THAN TRADITIONAL PROCESS

EPC Procurement	Traditional "Piecemeal" Procurement
 Performance Guarantee Fee  Financing Charges	 Additional Procurement Processes  Additional Human Resources  Opportunity costs for differed projects  Less Energy Savings resulting from: <ul style="list-style-type: none">• Lost time• Fragmented Approach• No Monitoring and Verification• No Savings Guarantee



OPPORTUNITIES

- Mandatory reporting of energy consumption by all public agencies (Ontario 2013)
- Zero Carbon operations (BC Government 2010)
- Commercial Buildings
 - Follow lead by Empire State Building
- Deferred Maintenance



ADDRESSING DEFERRED MAINTENANCE

- Projects or facilities can be bundled to increase scope and energy savings
- Guaranteed energy savings from EPC can also be used to fund non-energy deferred maintenance priorities
- Typically achieved by extending the term of the EPC contract



DISCUSSION

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