



Building bright futures

## CAMPUT 2009

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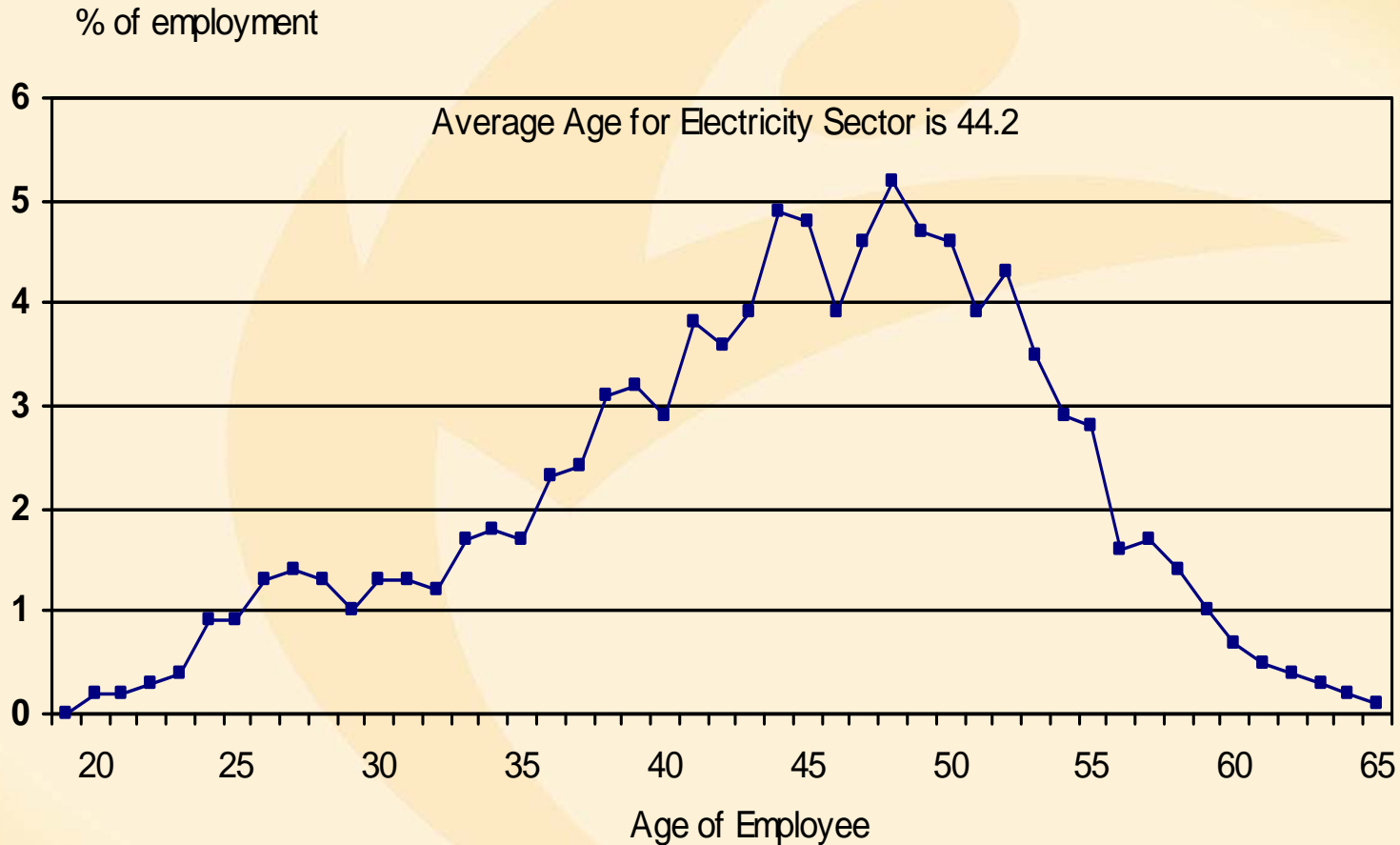
Funded by the Government of Canada's  
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# Environmental Scan

- Downturn in economy not expected to have significant impact on electricity hiring based on Towers Perrin pulse survey
- Larger utilities companies expect to go forward with planned hires and at planned increase levels
- LDC's, manufacturers and service suppliers pausing and may not action
- 40 % of firms surveyed by Mercer in October 2008 indicated they were working to increase headcount
- Traditional technologies (exception coal) expected to dominate, economic downturn expected to challenge renewable firms

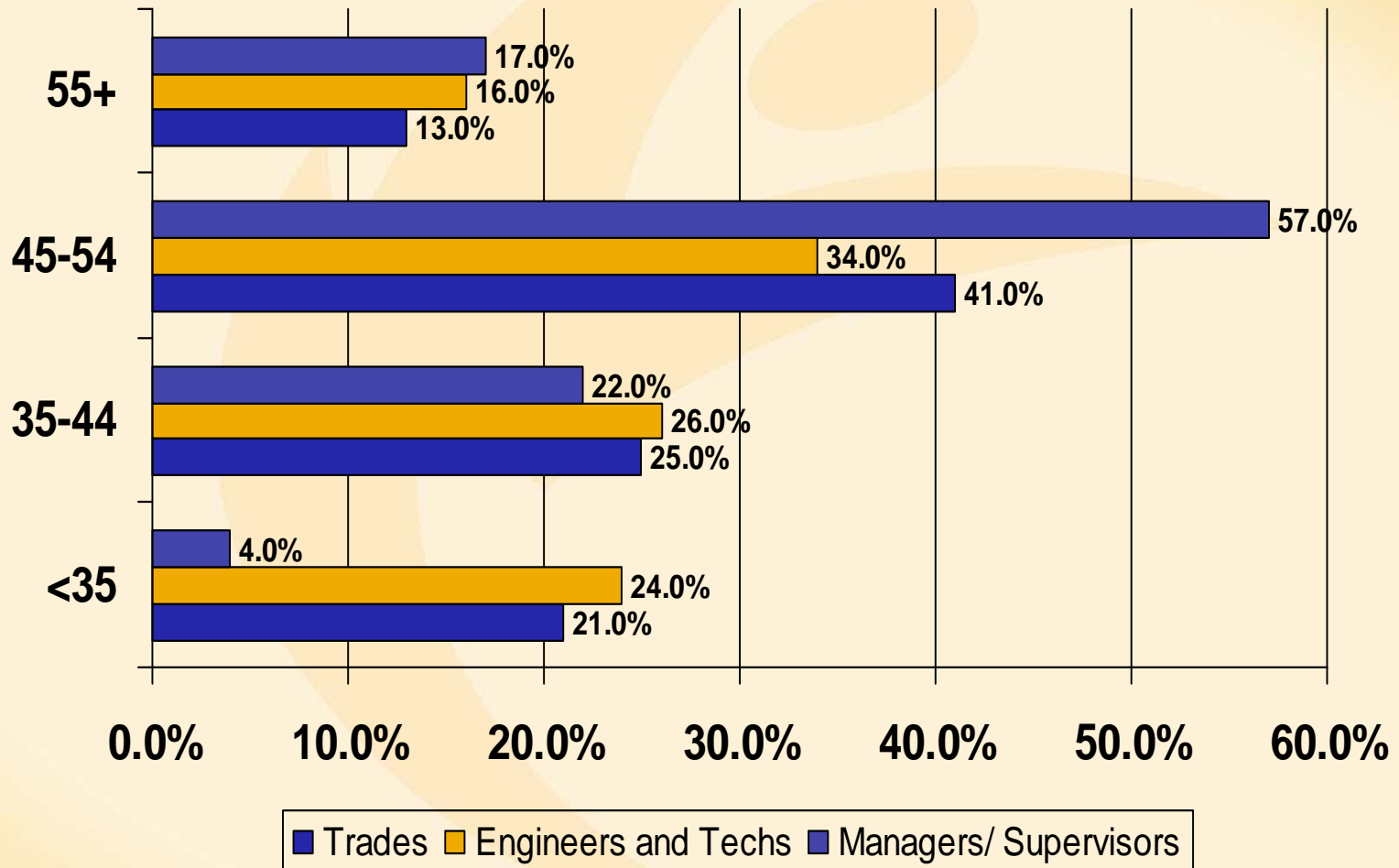
# 2004 Study - Age Profile of the Industry



# Characteristics of the Workforce 2008

- The electricity sector faces an aging workforce and the challenge of replacing retirees with a narrowing pool of younger workers.
- While employment among younger workers aged 15-24 has more than tripled over the past decade, the gap between younger and older workers (aged 55+) in the electricity workforce has widened substantially
- The % of older workers has increased - in 1997 less than 5% were 55+ compared with over 13% in 2007
- The number of workers aged 55+ increased from 4,100 to 13,800 between 1997 and 2007
- Supply/demand gap has widened since the 2004 study, a shortage of about 1000 more workers per year than previously estimated

# Average Age Profile of the Non Support Employee



## 2008 Study, Average hiring need per annum

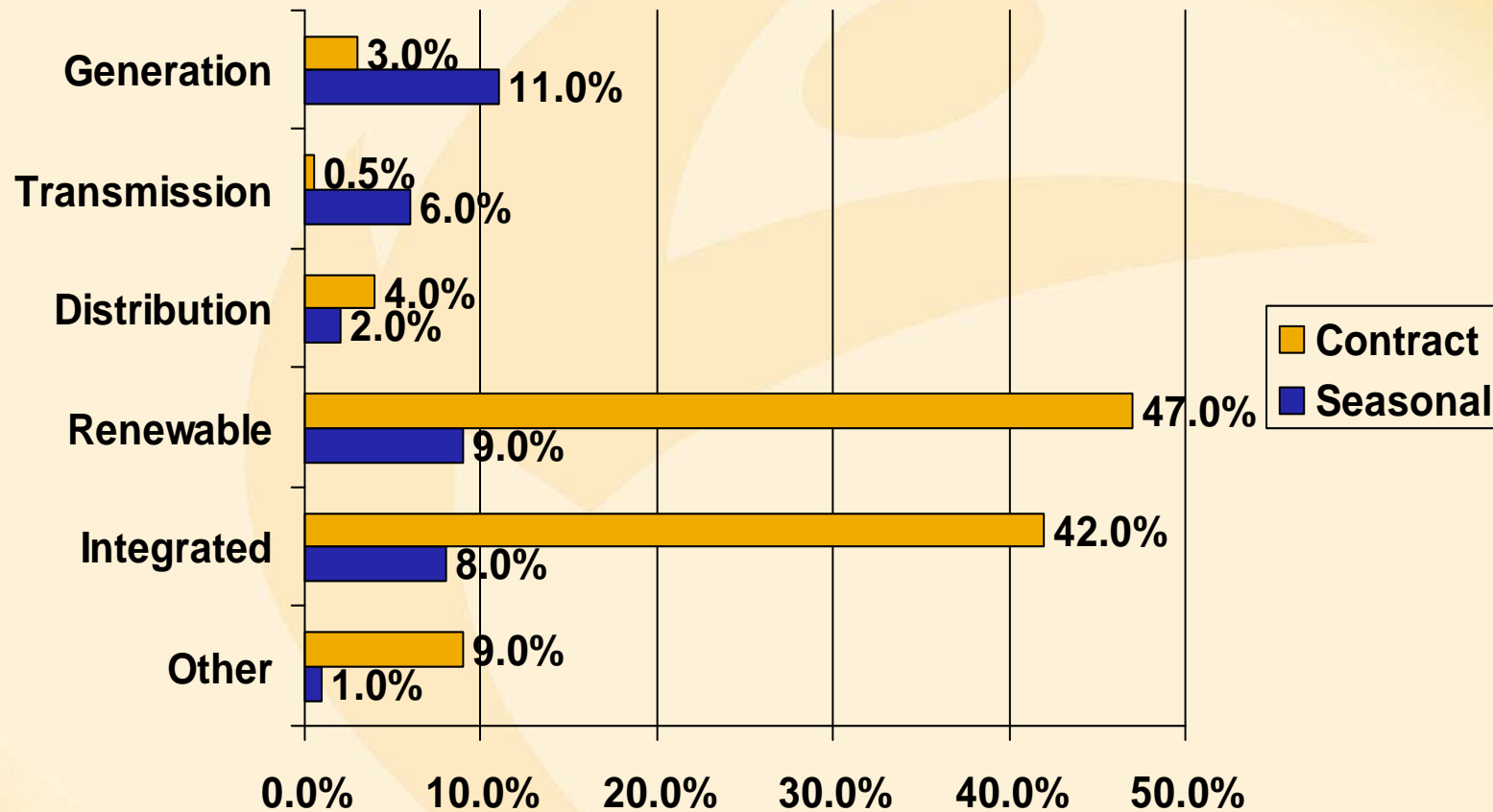
Group	2007-2009		2010-2012	
	Low	High	Low	High
Engineers	1043	1415	1317	1693
Trades/other non-support	2271	3082	2869	3688
Total	3314	4498	4186	5381

# Characteristics of the Workforce



- 27% of non-support workforce is hired on contract
- 8% of workforce captured in the ESC study are seasonal workers

# High Proportion of Contract Workers



Percentage of staff contract/seasonal

# LMI Data - National

Number of Registered and Completed Training in Electricity Related Apprenticeships			
	2003	2005	% change
<b>APPRENTICESHIP TITLE</b>			
Industrial Mechanic (Millwright)	9,105	9,595	5%
Power Line Technician	1,500	1,810	<b><u>21%</u></b>
Electrician (selected streams)	325	375	15%
<b>Stationary Engineer</b>	425	290	<b>-32%</b>
<b>Power Systems Operator</b>	15	5	<b>-67%</b>
<b>Total</b>	<b>11,370</b>	<b>12,080</b>	<b>6%</b>

# Change in Enrollment in Selected Engineering Programs

## Student Enrolment and Graduates or Completers in Engineering Programs

	2003	2005	% change
Electrical Engineering	17,382	15,693	-10%
Mechanical Engineering	14,742	15,600	6%
Civil Engineering	7,929	9,186	14%
Chemical Engineering	5,124	5,631	9%
Materials Engineering	504	924	83%
Systems Engineering	666	657	-1%
Nuclear Engineering	21	177	743%
<b>Total</b>	<b>46,368</b>	<b>47,868</b>	<b>3%</b>

# Retirement Trends

- Retirements in the electricity sector are expected to increase significantly over the next five years
- Retirements in 2006 accounted for 2.4% of the workforce
- Projected retirements represent 4.7% of the non-support workforce.
- This number climbs to 6.2% by 2012, for a total of 28.8% between 2007 and 2012.
- Power Systems Operators, Supervisors of Electricians and Line Workers, and Utilities Managers will experience the highest percentage of retirements
- Companies involved in transmission will be most significantly affected by retirements

# Recruitment

- The average vacancy rate reported by employers for non-support occupations is 3.2%; trades occupations recorded the highest vacancy rates (3.5%), with Power Line and Cable Worker rates at 4.9%
- The separation rate reported by employers averaged 1.3%
- Large employers are more likely to recruit from other sectors, small and medium employers from within the electricity sector
- The single biggest competitor for new hires is other utilities companies
- Contracting firms are a major recruiting source

# What are the opportunities?

- ESC study of industries shedding workforce shows limited opportunity for uptake by the industry given the amount of training our workers need, mostly in specific trades which are in demand by multiple industries
- 60% of the critical roles in the business are trades, Canada's immigration system has not supported high trades intake. Overseas recruitment in trades is challenged by the differences in equipment and electrical systems, for our best opportunities we compete against the US
- Diversity engagement is a great opportunity, the industry does not reflect the Canada of today and can do more here
- Targeted educational partnerships and greater career awareness are needed since competition from other industries for science literate candidates will increase

# What is the Electricity Sector Council

- Non profit, not for profit, primarily federally funded
- Our mandate is a safe sustainable workforce for the electricity and renewable energy industry
- We work to develop national projects in human resources development to support the work of our industry
- Governed by a national Board of Directors from Industry, Labour, Education, Government and Associations
- Operated by a staff of 12
- Current funding is trending to \$3 million per year, we have just turned 3 years old as an organization
- Contracted funding expected to reach \$10 million by April 2009
- We are not a lobby organization, we inform but we do not “advocate”

# ESC Conference

*Toronto Marriott Eaton Centre*

*May 20 and 21<sup>st</sup>*

*Plan to attend!*

*Keynotes: Minister Smitherman of Ontario*

*Phil Fontaine, Assembly of First Nations*

*Laura Formusa, CEO Hydro One*

*Marnie MacBean, Olympic Champion*

*CEO Panel: Don MacInnes, Plutonic Power*

*Paul Murphy, ON Systems Operator*

*Don MacKinnon, Power Workers Union*

# Projects - Check our website for more

- *Occupational Standards for electricity & renewable energy*
- *Labour Market Transition for workers from industries in decline*
- *Foreign Trained Worker engagement for the electricity industry*
- *Line worker trade situational analysis*
- *Succession Planning*
- *Knowledge Management*
- *Building a National HR Strategy for the Electricity & Renewable Energy Industry*
- *Bright futures Careers*
- *Wind Energy Curriculum*
- *Aboriginal workforce participation*
- *Electricity First Work: wage subsidy for new grads*
- *Labour Market Information*
- *Ontario Labour Market Information*
- *Improving Access to Under-represented*
- *Stakeholder Engagement*
- *Training & Learning Development*

# Skills/Competency Profiles Development

Supporting Curriculum development & performance assessment

The positions of:

- Power Protection and Control Technician
- Electrical Engineering Technician and Technologist
- **Wind Turbine Technician**
- Project Manager
- **Geothermal Installer**
- **Solar Photovoltaic Installer**
- **Solar Thermal Installer**
- Power Plant Operator
- Power Systems Operator

# The Best Way to Predict the Future is to Create the Future





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Thank you for helping to build a bright future!



Funded by the Government of Canada's  
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