Petroleum Labour Market Issues & Supply Solutions

Maritime Human Resources Solutions
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Cheryl Knight, Executive Director & CEO
Petroleum Human Resources Council of Canada
Purpose of this Presentation

- About the Council
- Key industry issues
- Key HR Issues
- Labour Market Information – Supply Sources & Demand Requirements
- Employment & Issues – Marine Occupations
- Council Resources
Petroleum HR Council of Canada

What is it?
- The primary resource to address workforce development and labour market issues in the Canadian petroleum industry.
- Collaborates with partners to develop strategies, solutions, products and services that help industry develop a sustainable, skilled and productive oil and gas workforce.
- Established as a sector council through a Human Resources and Skills Development Canada initiative.

Who are its stakeholders?
- 11 oil and gas national and regional industry associations, including one union.
Petroleum HR Council of Canada

The Petroleum HR Council benefits from industry and union support and advise within all sectors of the upstream petroleum industry in Canada:

- Exploration and production;
- Services industries – geophysical services, drilling and completions, and well services;
- Pipeline transmission;
- Natural gas processing; and
- Mining, extracting and upgrading heavy oil and bitumen.

The Petroleum HR Council addresses issues by:

- Developing strategies, solutions, products and services to address industry’s short, medium and long-term workforce issues;
- Facilitating the exchange of ideas and information; and
- Providing industry-related information on workforce issues and career opportunities.
Key Industry Issues

- Crude oil & oil sands:
  - Prices recovering; and
  - Costs for new oil sands moderating – Projects being re-examined.
- Natural gas:
  - Prices remain low, supply and storage are strong;
  - Impact of new unconventional gas (shale) supplies; and
  - Natural gas drives majority of drilling activity.
- Impact of industry cycles on attracting and retaining workforce;
- Currency risk;
- Environmental impacts/Climate change;
- Public perception;
- Government royalties & tax revenue;
- Aboriginal relations; and
- Labour force issues.
Key HR Issues

- Labour market information;
- Skill shortages and retention;
- Promotion of industry careers; and
- Opportunities & challenges in a cyclical industry.
Petroleum Labour Market Information

• The Council develops and provides up-to-date labour market information (LMI) on workforce trends, issues and projections in the short, medium and long-term (to 2020).
• Current and accurate labour market information is vital for attracting, retaining and developing a qualified workforce for the upstream petroleum industry.
The Value

The Council’s LMI helps:

- Companies plan successful retention, recruitment and workforce development strategies;
- Governments make policy and program decisions including immigration strategies, labour adjustment programs, and skills and training strategies;
- Education and training institutions and organizations plan for content, enrollment and funding;
- Career practitioners and guidance counsellors make recommendations to their clients;
- Job seekers plan their careers; and
- Professional associations promote their professions and support their members.
The Findings

- Projections show workforce shortages beginning 2011.
- Retiring workers will affect all industries and sectors within the next 10 years.
- Workforce shortages mean policies, programs and funding need to be developed now to maintain and attract a skilled workforce for the upstream petroleum industry.
- Industry’s aging workforce will drive significant replacement demand as early as 2013.
- As the Canadian economy as a whole recovers around 2012-2013, the proportion of potential labour supply coming from other industries decreases.
- Workforce shortages mean industry needs to develop strategies now to maintain and attracted a skilled workforce, as many of the occupations with the greatest labour supply/demand gaps are unique to the petroleum industry.
Expansion Demand

Petroleum Industry Employment - Growth Scenario 2006 - 2020

- Actual
- Projected

Number of Workers

- Oil Sands
- E&P
- Services
- Pipeline

Year:
- 2006
- 2007
- 2008
- 2009
- 2010
- 2011
- 2012
- 2013
- 2014
- 2015
- 2016
- 2017
- 2018
- 2019
- 2020
Aging Workforce

Petroleum Industry Age Demographics - 2006 Census

Percentage of Workforce

- 15 - 24 yrs.
- 25 - 34 yrs.
- 35 - 44 yrs.
- 45 - 54 yrs.
- 55 - 64 yrs.
- 65+ yrs.

- Conventional E&P and Oil Sands
- Services
- Pipelines
Expansion & Replacement Demand

Expansion + Replacement Demand (Core Occupations) - Growth Scenario 2009-2020

- Number of Workers
- 2009: 2000 (Expansion Demand), 500 (Replacement Demand)
- 2010: 1000 (Expansion Demand), 300 (Replacement Demand)
- 2011: 1500 (Expansion Demand), 400 (Replacement Demand)
- 2012: 1200 (Expansion Demand), 300 (Replacement Demand)
- 2013: 1000 (Expansion Demand), 200 (Replacement Demand)
- 2014: 800 (Expansion Demand), 100 (Replacement Demand)
- 2015: 600 (Expansion Demand), 100 (Replacement Demand)
- 2016: 400 (Expansion Demand), 100 (Replacement Demand)
- 2017: 200 (Expansion Demand), 100 (Replacement Demand)
- 2018: 100 (Expansion Demand), 100 (Replacement Demand)
- 2019: 0 (Expansion Demand), 0 (Replacement Demand)
- 2020: 0 (Expansion Demand), 0 (Replacement Demand)
Industry Occupations Most Impacted by Age Demographics

Top 15 core occupations with the greatest number of retirements and natural deaths 2009 - 2020:

1. Operators (steam and non-steam)
2. Supervisors, Oil and Gas Drilling and Service
3. Drilling Coordinators/Production Managers
4. Heavy Equipment Operators
5. Petroleum Engineers
6. Oil and Gas Well Drillers, Servicers, Testers, and Related Workers
7. Truck Drivers
8. Geologists and Geophysicists
9. Millwrights and Machnists
10. Oil and Gas Drilling, Servicing, and Related Labourers
11. Oil and Gas Well Drilling Workers and Service Operators
12. Welders
13. Petroleum Engineering Technologists
14. Heavy-duty Equipment Mechanics
15. Purchasing Agent/Landman
**Occupations Most Impacted by Labour Supply/Demand Gaps**

Top 15 occupations with the greatest labour supply/demand imbalances in Growth Scenario 2009 - 2020:

1. Heavy Equipment Operators
2. Operators (steam and non-steam)
3. Supervisors, Oil and Gas Drilling and Service
4. Oil and Gas Drilling, Servicing, and Related Labourers
5. Oil and Gas Well Drillers, Servicers, Testers, and Related Workers
6. Millwrights and Machinists
7. Heavy-duty Equipment Mechanics
8. Truck Drivers
9. Welders
10. Oil and Gas Well Drilling Workers and Service Operators
11. Industrial Electricians
12. Steamfitters and Pipefitters
13. Instrumentation Technicians
14. Drilling Coordinators/Production Managers
15. Mechanical Engineers
**Industry’s Share of Labour Supply**

Historically, industry has not attracted its share of workers from all potential labour supply pools.

**Upstream Petroleum Industry - Share of Labour Supply**

* Census 2006

- **New Entrants**
- **Immigrants**
- **Aboriginal Peoples**
- **Women in Engineering, Trades, Technology**

- **Workers in Canadian "Petroleum Industry-like" Occupations**
- **Representation in Petroleum Industry**
Marine Employment within the Canadian Offshore Petroleum Industry

Exploration
- Mobile Offshore Drilling Units
  - Jack-ups
  - Drill ships

Development, Production and Transportation in the Upstream Industry
- Atlantic Canada
  - Fixed Production Platform (FPP)
  - Floating Production Storage and Offloading (FPSO) vessels
  - Semi-submersible drilling rigs
  - Standby and supply vessels
  - Tankers

- West Coast (proposed)
  - Tugs (escort and berthing)
Direct Marine Employment – Expansion Demand

Direct Offshore Petroleum Industry Marine Employment - Development, Production & Transportation

Number of Workers

Actual    Projected

Key Marine Issues

Public education
• Increasing public concern about offshore petroleum industry.
  – Safety of workers;
  – Potential for accidents; and
  – Environmental impact.
• Awareness of marine occupations amongst youth.

Attraction and development of marine personnel
• Aging workforce.
• Recession has stalled succession programs.
• Pilots with local knowledge to bring oil tankers safely through channels.
• Broad work assignments for marine personnel working in offshore petroleum industry.
  – Marine, operations, drilling, etc.
  – Different line of command on FPSO – master mariner in charge only when vessel disconnects.

Need equipment and personnel capable of working in harsh weather environments.
Key Initiatives – Labour Market Information

Addressing Short, Medium & Long Term Labour Market Needs: Petroleum Labour Market Information

- Produced and piloted industry survey to gather current and short term LMI and HR indicators;
- Developed E&P, oil sands, services (petroleum services, geophysical and drilling), and pipeline labour supply and demand methodologies and employment projections for 37 core occupations;
- Conducted and validated labour supply/demand gap analysis 2009 to 2020;
- Presented our LMI findings to industry, governments and education and training organizations; and
Key Initiatives – Skill Shortages and Retention

Alberta Immigrant Integration
• Identified the tools, resources and support processes needed by petroleum companies to increase the employment and retention of immigrants already living in Alberta into the industry.

Draw the World into Your Workplace
• Resource with proven and innovative outreach strategies targeted to specific and available groups of workers.

Educational Partnership Framework
• Will build a structure for regular information sharing between the upstream petroleum industry and the education sector for the purpose of providing a ready and skilled workforce

Essential Skills
• Researches the industry Essential Skills gaps and required interventions to address workplace safety, attraction and workforce development.
**Key Initiatives – Skill Shortages and Retention Continued**

**Increasing the Talent**
- **Online toolkit** – helps companies and communities understand and address attraction, retention and workforce development challenges, particularly in hard-to-recruit locations.
- **Products & Services** – evaluating opportunities for value-added products and services.

**Occupational Profiles and Tools**
- Promotes the industry as a vibrant and challenging career option to career seekers and career counsellors, with details on the work and education required, as well as career paths.

**Petroleum Competency Program**
- Certifies workers using industry-developed standards of competence.
Key Initiatives – Promotion of Industry Careers

Career Awareness

- Via [www.careersinoilandgas.com](http://www.careersinoilandgas.com), we provide job seekers with the information and resources they need about working in Canada’s oil and gas industry;
- We promote the industry and its career & training opportunities at career/trade fairs and workshop sessions; and
- *Careers in Oil & Gas: Rich with Potential Guide for Practitioners* has been updated is now available.
Key Initiatives – Opportunities & Challenges in a Cyclical Industry

Labour Market Transition

- Determining where, when and degree of fit between the skills of downsized workers and opportunities within the petroleum labour market; and
- Promoting the industry and its in-demand jobs to key influencers of displaced and employment-threatened workers.
For More Information

www.petrohrsc.ca
www.careersinoilandgas.com

To be added to our eNewsletter, email info@petrohrsc.ca