



Talent Needs for the Evolving Energy Ecosystem

Alberta's Transitioning Economy: Tools to Support Oil and Gas Workers Shifting to Other Industries

Alberta Career Development Conference

Wednesday, May 5, 2021

AGENDA

Share our innovative process and insights from our applied research to support individuals' capacity to transition across sectors and occupations.

1. Introductions
2. Alberta's evolving industries
 - Impacts on business activities
 - Identifying “adjacent” industries
3. Assessing transferability: methodologies and tools
 - Starting With You!
4. Tips to conduct market research
5. Wrap up
6. Q & A



OUR LEARNINGS

- **This economic transition is different**
 - Every sector has been disrupted
 - Job generation coming from small employers, start-ups and emerging sectors
- **Most mid-career transitioners want to leverage existing expertise**
 - Direct career transition or refocus/reskilling
 - “Adjacent” sectors likely to offer greatest opportunity
- **Shifts in Alberta’s available talent pool**
 - Higher percentage of younger talent with 7 – 10 years experience
 - Women and visible minorities make up a growing portion
 - Increased awareness of the need to transition to a new industry
 - Increased willingness to take training and salary reduction
 - Economic environment impacts opportunities for new grads
- **Transition challenges:**
 - Lack of understanding of how to transition and conduct effective market research
 - Reluctance to relocate
 - Willingness to train is not leading to actually taking training
 - Despite willingness to take a salary reduction, expectations remain high
- **Mental health/wellness** impacts resilience needed for job search



ALBERTA'S EVOLVING INDUSTRIES

NEW BUSINESS MODELS DRIVE ACTIVITIES

ACTIVITIES DRIVE GROWTH IN ADJACENT SECTORS

AN EVOLVING INDUSTRY DRIVES ACTIVITIES

Cost competitive and profitable:

- Implementation of digitization and automation technologies.
- Application of manufacturing approach to resource development.
- Predictive maintenance and optimization of assets and production.

Carbon competitiveness and reduced environmental footprint:

- Implement clean technologies to reduce carbon intensity.
- Implement energy efficiency technologies to reduce consumption.
- Produce lower carbon products.
- Circular economy: decommissioning, reclamation, recycling and remediation.

Environmental, Social and Governance (ESG):

- Beyond compliance to demonstrating value/results.
- Environmental Assessment and Impact Assessment Acts.
- Stakeholder consultation and engagement.
- Relationships and partnerships with Indigenous communities.

Domestic and international market diversification:

- Pipeline(s) to tidewater.
- LNG (exports and domestic uses).
- Petrochemical manufacturing.
- Coal to natural-gas conversion (power generation).
- Oil and gas expertise and technologies

Implementing opportunities and managing risks associated with “Industry 4.0”:

- Installation, integration, maintenance and enhancement of equipment, hardware and software to automate and digitize.
- Develop protocols to ensure cybersecurity and privacy.
- Organizational development/effectiveness, training and change management to support cultural, mindset and skill requirements.

Expanded supply chains:

- Procurement and partnerships with additional industries and companies to address need for new products, services, feedstocks, etc.

AN EVOLVING INDUSTRY RELIES ON OTHER SECTORS

<i>Priority activities</i>	<i>Engagement with other sectors</i>
Cost competitive and profitable	<ul style="list-style-type: none"> ✓ High tech ✓ Industrial construction and maintenance
Carbon competitiveness and reduced environmental footprint	<ul style="list-style-type: none"> ✓ High tech ✓ Cleantech ✓ Renewable energy
Environmental, Social and Governance (ESG)	<ul style="list-style-type: none"> ✓ High tech ✓ Cleantech
Domestic and international market diversification	<ul style="list-style-type: none"> ✓ Petrochemical manufacturing ✓ LNG ✓ Industrial construction and maintenance
Implementing opportunities and managing risks associated with “Industry 4.0”	<ul style="list-style-type: none"> ✓ High tech ✓ Organizational effectiveness and training
Expanded supply chain	<ul style="list-style-type: none"> ✓ Additional supplier and customer industries

These “adjacent” sectors likely offer the greatest transferability opportunities.



COACHING QUESTIONS:

HELPING CLIENTS UNDERSTAND HOW THEIR INDUSTRY IS EVOLVING AND WHAT IT MEANS FOR THEIR CAREER

- ***What challenges or changes is your industry facing? What is driving those challenges or changes?***
 - *Structural shifts, COVID, regulations, investor/customer expectations*
- ***What problems/issues need to be resolved?***
 - *For problems they are currently addressing or ones that they need to address*
- ***How is your industry “doing business” differently? How does your area of expertise contribute to potential solutions?***
 - *New activities, products/services, technology, supply chain, customers/stakeholders,*
- ***What types of companies and/or services provider will be involved in implementing solutions?***



**TRANSFERABILITY CRITERIA:
SECTORS**

ASSESSMENT CRITERIA FOR SECTOR TRANSFERABILITY

Rating – High/Medium/Low

Technical transferability	Similarities between core qualifications, certifications, technical knowledge and skills, business processes, use of equipment and technology regulatory environment, customers/stakeholders, etc.
Nature of work transferability	Similarities in work arrangements, workplace culture, relationships and environments, etc.
Value proposition transferability	Likelihood of workers accepting an employment offer based on factors such as total compensation, location of work, career development opportunities, values, etc.

ASSESSMENT RESULTS FOR SECTORS IN THE ENERGY ECOSYSTEM

Sector Transferability Rating - High/Medium/Low

	Sector	Technical	Nature of Work	Value Proposition
H	Petrochemical manufacturing	H-L	H	H
	Cleantech	H	M	H
M	Industrial construction & maintenance	M-H	H-L	H-M
	High tech in oil & gas	M-L	M-L	H
L	High tech (pure)	L	L	L
	Solar energy	L	L	L

**TRANSFERABILITY CRITERIA:
OCCUPATIONS**

TRANSFERABILITY: DIRECT, REFOCUS OR REBOOT

<i>Occupational transition into another sector is:</i>	<i>If core qualifications, certifications, technical knowledge and skills and business processes, regulatory environment, customers/stakeholders, and workplace culture and environment are:</i>
<i>Direct</i>	<i>essentially the same with a high likelihood of candidate's recruitment and retention.</i>
<i>Refocus</i>	<i>very similar but candidate likely requires some skill and/or knowledge upgrading to increase likelihood of recruitment.</i>
<i>Reboot</i>	<i>dissimilar and candidate will need to invest significant effort and resources to qualify for a position.</i>

Relocation may need to be considered regardless of chosen transition path.

OCCUPATIONAL TRANSFERABILITY EXAMPLES

Selected occupations from oil and gas talent pool

<i>Oil and gas occupations</i>	<i>Industrial Construction & Maintenance</i>					<i>Renewable energy</i>	<i>Cleantech</i>				<i>Petrochemical Manufacturing</i>	<i>High Tech in Oil & Gas</i>	<i>High Tech</i>
	<i>Engineering, Design & Procurement</i>	<i>Modular Fabrication</i>	<i>On site Construction</i>	<i>Contracted & Turnaround Maintenance</i>	<i>Start Up & Commissioning</i>	<i>Solar</i>	<i>Methane Reduction</i>	<i>CCUS</i>	<i>Well Decommissioning</i>	<i>Energy Efficiency</i>			
Automation Engineer	<i>DI</i>						<i>RF</i>	<i>DI</i>		<i>RF</i>	<i>DI</i>	<i>DI</i>	<i>RF</i>
Geologist							<i>RF</i>	<i>DI</i> <i>RF</i>	<i>DI</i>			<i>RF</i>	
Instrumentation Technician		<i>DI</i>	<i>DI</i>	<i>DI</i>	<i>DI</i>	<i>DI</i>	<i>DI</i>	<i>DI</i>		<i>DI</i>	<i>DI</i>	<i>DI</i>	<i>DI</i>
Driller								<i>DI</i>	<i>DI</i>				<i>RF</i>
Supply Chain Specialist	<i>RF</i>	<i>RF</i>	<i>RF</i>	<i>RF</i>	<i>RF</i>	<i>RB</i>	<i>DI</i>	<i>DI</i>	<i>DI</i>	<i>DI</i>	<i>DI</i>	<i>RF</i>	
Project Manager	<i>RF</i>		<i>RF</i>			<i>RB</i>				<i>DI</i>	<i>RF</i>	<i>RB</i>	<i>RB</i>
Plant/Control Room Operator					<i>DI</i>			<i>RF</i>		<i>DI</i>	<i>RF</i>	<i>RF</i>	

RESOURCES & TOOLS
SUPPORTING CAREER TRANSITIONER
PREPARATION AND RESEARCH

STARTING WITH YOU! Exercises to Explore Career Transition

Tips on Conducting Market Research

Starting with you! What do I have, what do I want and what am I willing to do to get there?

- **Individual exercises** to apply transferability assessment criteria to focus your clients' job search and further research:
 - Transferability of individual skills and experiences into other sectors or occupations
 - Where upskilling might be needed

<http://www.careertransitions.ca/>
- **Start by helping clients think about.....**
 - Work situation when he/she felt energized and motivated
 - Times when he/she set goals and accomplished them
 - Situations when he/she received positive feedback on something he/she did
 - Personal criteria for work and career



Starting with You!: What do I have, what do I want?

Criteria	Elements of transferability	Things to think about
Technical transferability	<ul style="list-style-type: none"> • Core qualifications • Certifications • Technical knowledge and skills • Business or operational processes • Use of equipment and technology • Knowledge of regulatory environment • Dealing with customers/stakeholders 	<p>How you use skills and knowledge that indicate what you're good at such as:</p> <ul style="list-style-type: none"> • Data, information or ideas – gathering or creating it; managing it; storing or retrieving it; putting it to use • People – with individuals one at a time; with groups • Things – your body, materials, objects, equipment or machinery, buildings
Nature of work transferability	<ul style="list-style-type: none"> • Work arrangements: contractor, employee, rotational/mobile; travel • Work environment: indoors/outdoors; small/large company; location; etc. • Workplace culture: nature of relationships; higher risk/lower risk; more structured/less structured; etc. 	<p>The kind of place you'd like to work:</p> <ul style="list-style-type: none"> • Work arrangements • Work environment – e.g., office, remote location • Nature of relationships with colleagues and leaders • Level of structure • Predictability/level of routine in work • Tolerance for risk • Deal breakers
Value proposition transferability	<p>Likelihood of accepting an employment offer and remaining with the company based on:</p> <ul style="list-style-type: none"> • Total compensation – salary, bonus • Location of work • Role level • Career development opportunities • Organization values 	<ul style="list-style-type: none"> • Where do you want to do your work? • Primary career goals that organization allows you to have • Salary you need • Level in organization – individual contributor, team lead, supervisor, manager, director, executive • Companies that stand for what's important to you • Deal breakers



Talent Needs
for the Evolving
Energy Ecosystem

Starting with You! WHAT ARE YOU WILLING TO DO?

<i>Mostly likely focus of job search</i>	<i>If responses are:</i>
<i>Direct</i>	<ul style="list-style-type: none"> ✓ Not interested in transitioning to new career or occupation at this time ✓ Willing to relocate ✓ Can take a rotational work assignment (fly-in/fly-out; drive-in/drive-out) ✓ Unable or unwilling to take a reduction in salary
<i>Refocus</i>	<ul style="list-style-type: none"> ✓ Willing to relocate ✓ Can take a rotational work assignment (fly-in/fly-out; drive-in/drive-out) ✓ Can take short-term training (less than one year) ✓ Willing to do volunteer or unpaid work to gain experience ✓ Able to take a reduction in salary
<i>Reboot</i>	<ul style="list-style-type: none"> ✓ Willing to relocate ✓ Can take longer-term training (1-2 years) ✓ Can complete a second degree or diploma program ✓ Willing to do volunteer or unpaid work to gain experience ✓ Able to take a reduction in salary

TIPS ON CONDUCTING MARKET RESEARCH

KEY DRIVERS OF EMPLOYMENT

ASSESSMENT CRITERIA

Drivers of Labour Demand:

- **Investment announcements.**
- **Government programs and/or economic incentives for growth.**
- **Changing regulations.**
- **Workforce demographics.**

Current/short-term

Employers currently hiring or hiring expected in the next 6 months.

Medium-term

Hiring expected within 6 to 12 months.

Long-term

Hiring not expected within the next year.

TIPS FOR MONITORING TRENDS & JOBS

Leading Indicators of Job Growth/Hiring

- Spending announcements** from companies and industry associations
- Spending and/or projects reinstated
 - Corporate guidance on spending; investment; accelerated technology implementation, etc.
 - Supply chains, contractors used

Regulations:

- Environment
- Stakeholder and Indigenous engagement

Incentive program(s) from federal and/or provincial governments

- Pandemic recovery funding

Resources: Newsletters, Webinars, Publications

Industry and professional association publications

- APEGA, ASET, CPA Canada, Supply Chain Canada

Consolidator publications

- JWN Energy, EnergyNow

Industry and business researchers

- ARC Energy Research Institute, IEA, Rystad Energy
- Deloitte, EY, PwC, Boston Consulting Group, Conference Board of Canada

Labour market research organizations

- PetroLMI, ECO Canada, ICTC, BuildForce, Brookfield Institute, Future Skills Centre

Government publications:

- [Alberta Major Projects Inventory](#)
- [Invest Alberta](#)

*ENERGY CAREER TRANSITION AND
EMPLOYMENT RESOURCE*

**FOR
CAREER TRANSITIONERS WITH OIL & GAS
EXPERIENCE**

WWW.CAREERTRANSITIONS.CA

A PETROLMI INITIATIVE

The Energy Career Transition and Employment website

Alberta's Evolving Energy Industry

Explore the transferability of oil and gas skills, knowledge and experience across a sampling of occupations and industry sectors.

USE THE SLIDE CONTROLS AT THE BOTTOM TO EXPLORE THE RESOURCE OR DOWNLOAD THE HOW-TO GUIDE BELOW



ENERGY CAREER TRANSITION AND EMPLOYMENT RESOURCE

Canada Alberta

The Province of Alberta is working in partnership with the Government of Canada to provide employment support programs and services.

Slide 1

Google Slides

Energy Career Transition and Employment Resource

STAY CONNECTED AND UP-TO-DATE

- Attend an upcoming workshop or share with job seekers:
 - Career transition/mental wellness for job seekers
 - Will be posted on LinkedIn
 - Subscribe to the newsletter
- **Job Seekers:** Take our survey and help us educate employers about Alberta's available talent:
<https://www.surveymonkey.com/r/UntappedTalent>
 - Promote it!!
- Use and share the Resource: Careertransitions.ca
- [Exploring Successful Career Transitions](#) webinar series

STAY CONNECTED AND UP-TO-DATE

Contact us if you have any questions and/or subscribe to our newsletter:

Pat Hufnagel-Smith: pjhs@creativelinks.ca

Cheryl Knight: cherylcmk311@gmail.com

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Q & A