

Green Economy Opportunities Summit

Summary Report



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Background

Context

The Jobs Board Secretariat was established to support the Jobs Board and its mandate to foster a jobs and economic growth agenda for New Brunswick. The opportunities-based economic development model is based on the idea that the competition for business investment and for highly ambitious entrepreneurs and talent has never been as high as it is today. We need to identify and align our resources to develop tangible, highly valuable and profitable opportunities that will attract investment from local businesses, communities, ambitious new entrepreneurs and multinational firms.

In order to ensure that we are considering the largest range of potential opportunities for NB’s growth, the JBS has organized a series of Opportunities Summits around the province, between late September and April of 2016, in partnership with Opportunities NB (ONB) and lead departments.

Summit Objectives

- Identified long list of viable economic opportunities to explore
- Identified conditions for success in identified opportunities
- Participants had a positive experience and felt their contribution mattered
- Participants felt heard

Summit Agenda and Participants

On April 4th from 9:00am-2:00pm at the Edmundston Convention Centre, Edmundston, NB, over 70 stakeholders gathered to discuss economic opportunities within the Green Economy. For a full list of attendees see Appendix A.

9:10am	Local MLA Minister Francine Landry and Minister Brian Kenny
9:20am	Premier Brian Gallant
9:35am	Future Green Economy – Philippe Dunsky
10:00am	Brainstorming Opportunities
11:45pm	Lunch break
12:30pm	Conditions for Success
2:15pm	Minister Kenny closing remarks
2:25pm	Next steps and closing

What We Heard

Opportunities

Participants were divided into 12 tables of 6 and asked to think about the future of the Green Economy.

- **Imagine it is 2040, what could a Green Economy in New Brunswick look like?**

This is a summary of their responses:

Green Economy in 2040

- Green energy tax incentives
- Green service sector
- Smart cities, smart homes, smart tech
- Big Data
- Green revolution (transport, oil)
- Power lines underground
- Distributed energy generation
- NB is a carbon net reducer
- Energy efficiency with 2-way metering
- Energy business changes, power company 'manages' the grid
- Evidence-based findings shaping policy - the cost of not changing will be illustrated
- Across sectors, like agriculture & forestry – not just energy production – jobs & carbon sequestration from other areas
- Lean + mean industrial
- Self-sufficient communities
- Huge cultural shift
- Municipal + private buildings will be governed under public code (building efficiencies)
- Export strategies for existing green tech manufacturing
- Incentives to move away from high emitting processes - investing in technology + infrastructure - changing behaviour
- Learn from other jurisdictions
- Strong Energy Efficiency building codes
- Distributed generation + storage
- Global/advanced carbon trading leading to carbon neutrality
- Exceeded carbon targets
- Empowered personalized consumers
- Utilities as a platform
- Smart cities - planning sustainability
- Biomass as a localized solution
- Net zero self-sufficient homes, buildings
- Green jobs are predominant
- Silicon valley of energy - smart grid
- Electric vehicles
- Export smart grid tech/capabilities
- Export/distribute power, energy storage tech
- Energy savings- building retrofits/ new energy buildings
- NB Power replace generation assets
- Advanced manufacturing in green tech

Green Economy in 2040 (continued)

- Growing 'new' products – hemp, bioplastics
- Progressive government policies to make a green economy happen
- Economy has improved: creating value, eliminating waste
- Everyone literate & aware, different energy and water usage
- Small-scale generation
- Legislation drives change- waste not accepted
- Value added forest products, wood fibre insulation, structural
- Net zero building code
- Tidal power, wind, solar, geothermal
- Increased local food production, diversity and quality/ food security
- Lifecycle assessment (cradle to cradle)
- Sustainable seafood/food production
- Carbon storage
- Forestry management (no clear cut)
- District energy
- Zero energy from non-renewable
- Energy buildings generating its own power
- 50% of energy from renewable sources
- Canadian guidelines for transparent product labelling
- Education/knowledge to reduce waste (know/use tool well/green)
- Product manufacturing standards + ecoresponsible
- N.B. equipped to support all electric vehicles (electric vehicles everywhere, same price – cost of purchasing an electric car, shorter recharge)
- Scorecard in all homes for energy consumption
- Solar panels - > smaller, more efficient, more attractive

They were then given 30 minutes to discuss the short term opportunities which would help realize the 2040 opportunities.

What are the opportunities for growth in the Green Economy in the next 3 years?

These opportunities are outlined below:

Solar (7 tables mentioned this as an opportunity)

- Increase solar energy use
- Grow green businesses
- (TOU) Time Of Use rates, carbon, market signage (Dynamic)
- Encourage new businesses to become leaders. Requires promotion, funding, assistance
- Commercialize 3-5 start-ups out of smart grid innovation network
- Innovation: job training, green province, take advantage of federal funding, leverage all players
- New businesses in smart home, exports, energy efficient products, decrease in CO₂ emissions, carbon credits

Education (8 tables mentioned this as an opportunity)

- Education on market direction, government has to educate themselves & citizens on energy markets, fact-based decision making, educate citizens on NB Power/Siemens, SGIN could be delivery mechanism for this education
- Carrot: Incentives program, tax breaks, rebates, education, research funding
- Awareness/Education of climate change, goal/vision communicated and shared
- Mentality shift, we can do it here, diversity of topic
- Energy awareness
- Educate our leaders
- Increase awareness - green economy is the economy: Economy + Environment, aren't competition - personal responsibility
- Education programs to them (industry and environmental groups) collaborate
- Colleges need to offer continuing education for green tech installers and consultants- so many opportunities

Policy and targets (4 tables mentioned this as an opportunity)

- Implement climate change action plan + targets
- Policy/legal institutional framework (stability/targets)
- Stick, policies, regulation, green economy committee
- Set targets and penalties with a system to measure + communicate
- Invest now

Transportation (4 tables mentioned this as an opportunity)

- Invest in sustainable infrastructure: buildings, transportation, bridges/wharfs
- Consumer focused (Buses) public transit, local bike trails when developing/reconstructing highway/roads
- Smart energy cities/communities (agriculture, transportation, energy, waste management)
- Increase/develop electrical transportation infrastructure

Food production (2 tables mentioned this as an opportunity)

- Low hanging fruit energy production, eco tourism (move quickly)
- Ramp up and promote local food production

Value Added Waste (4 tables mentioned this as an opportunity)

- Recycling, value added innovations, ICI + residual, province-wide, EPR, waste as a resource value, move cost to business consumers
- Policy vision for waste management, value stream
- Increase biomass use
- Promote biomass & biogas

Energy Efficiency (6 tables mentioned this as an opportunity)

- Investment in energy efficiency, resident, industrial, commercial
- Change focus of NB Power - energy efficiency, provide incentives for all energy savings, oil and natural gas
- Invest in energy efficiency programs
- Set aggressive targets, take into account social issues (First Nations & seniors)
- Retrofit all buildings in the province
- Develop and export energy efficiency expertise
- Increase energy efficiency measures
- All municipalities follow Fredericton lead on renewable energy RFP.
- Bring back third party efficiency audits that address all fuels - access federal funding
- Increase number of retrofits
- Have NB Power lease energy efficient technologies to homeowners

Others

- Share success stories
- Invest now
- Implement of community windmill park
- Address disengagement of Reduce Reuse-Recycle

What is working now and what needs to happen next?

Groups were divided by the major themes identified above and asked to discuss what is working currently to help address these opportunities and what needs to happen next?

<i>Opportunity – Community Infrastructure</i>	
What is happening? What is working?	What is missing? What needs to happen next?
<ul style="list-style-type: none"> ▪ LEED Silver - provincial, some municipalities ▪ Local organized renewable energies system in small communities ▪ Climate change action plan ▪ Community Energy plan ▪ Federal action funding - 1.7 billion for wastewater, transportation, renewables 	<ul style="list-style-type: none"> ▪ Advancement in building codes ▪ Green technologies in community building and development plans ▪ Assets - sustainable community ▪ Create policies and targets ▪ Incentives: net zero, net positive, LEED gold ▪ Electronic car infrastructure ▪ Plan for NB priorities + projects Clean Energy financing

Opportunity – Food Production

What is happening? What is working?

- Food boxes
- Farmer's Markets
- Local Food vender (stores)
- Conservation, council, APP
- Proper use of crown land for food production
- Aquaculture (fish)

What is missing? What needs to happen next?

- Market awareness
- Family farms
- Simple, effective regulatory process for food production
- Marketing boards too restrictive
- Proper use of crown land
- Product diversification (hemp)
- Farm tourism weeding experience

Opportunity – Energy Efficiency

What is happening? What is working?

- Point of sale rebates
- Heat pump rebates
- Commercial existing
- Owners that do it themselves B/C pay back is so short
- SJ energy heat pump rental
- Heat pump water heaters in other jurisdictions
- Low income program
- Commercial companies are building solar ready

What is missing? What needs to happen next?

- Commercial /Industrial
- Point-of-sale rebate
- GHG targets
- Non-electric Federal + Provincial policy exports
- Industrial programs
- Centralized/geo heat pump rebates
- Target for retrofitting
- No measurement to create (payback?)
- More money for low income programs
- Financing
- New construction, new products
- Enabling regulation
- Evaluation for new construction
- Provincial branding
- Building permits/codes
- Standards pricing
- Carbon
- Price signals/ smart rates
- Education
- Build 'permanent' programs
- Permanent energy modeling tool
- Public asset
- Property tax
- Export opportunity

Opportunity – Energy Efficiency

What is happening? What is working?

- Program offered through NB Power electric only
- LED lights, switch out (street) interior
- Heat Pumps
- Passive solar
- LEED/Green Globes, designation
- R200/Energuide
- Energy Management limited (stalled)
- GVT is investing (hosp., schools, colleges)

What is missing? What needs to happen next?

- Awareness/education
- Life cycle costing
- Ownership of energy management
- Behavioural changes (implemented)
- All fuels
- How will federal program play-out
- Market uncertainty
- Lack of capital investment
- Solar Program
- Time of use rates (dynamic)
- Policy changes and energy codes

Opportunity – Education

What is happening? What is working?

- Great minds think outside the box (NBEN?)
- 10-year education plan
- NB Power outreach
- Lots of environmental education through Environmental Trust Fund (ETF)
- Faculty of forestry, Environmental Management (UNB), and other post-secondary programs (NBCC, etc.)
- The Gaia Project – 20-30 classes par année, fait partie du curriculum
- Environment education in some schools k-4
- System of professional designation e.g. PENG – industry environment
- Climate change – more in the news, social media

What is missing? What needs to happen next?

- Better strategic links between NBCC + Universities
- Better links among faculties (un-silo universities)
- Sustainable education for general public (how to we reach them, energy efficient, green energy)
- Financial incentives for NBers (individuals) to go green
- Shift in schools: Green economy, sustainability, energy food production, etc.
- We could be the hub for green economy and renewable energy training in Canada (post-secondary)
- Faculty of environment
- Value of pristine and healthy environment - need to be taught, learned, internalized
- Need to better understand what the green economy in NB looks like today
- Make the sustainable aspects of all field of development part of the program/ tech + business
- Develop green citizens - the environment is part of NB culture
- Lifelong learners
- Environmental sustainability – a requirement in all

	<p>programs at university-</p> <ul style="list-style-type: none"> ▪ Teachers need a deeper understanding - allow students to learn at higher level ▪ Municipalities, GNB, and other public institutions need to walking the walk (use existing resources from environmental NGO's) ▪ Good environment for learning – energy efficiency, renewables, waste management for students, local food
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Opportunity – Growing Green Business

<p>What is happening? What is working?</p> <ul style="list-style-type: none"> ▪ Start-up community ▪ ACOA Smart-grid ▪ Siemens lab ▪ Skilled trades/available workforce ▪ A lot of old housing stock 	<p>What is missing? What needs to happen next?</p> <ul style="list-style-type: none"> ▪ Large established enterprise – Awareness & Leadership ▪ Patient Capital ▪ Linking largest business & start-ups ▪ Clean/green Tech/ Green playbook- business investment ▪ Global reach- export oriented ▪ Holistic life cycle view/responsibility ▪ NB Philosophy: large infrastructure program: low skilled w/f built for export ▪ Sustainable Government- Bus- Acadian(?) collaboration ▪ Energy efficiency retrofit- social enterprise
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Opportunity – Waste as a Resource

<p>What is happening? What is working?</p> <ul style="list-style-type: none"> ▪ Provincial program: tires, paint, oil, e-waste ▪ Businesses do great in reduction & valuing waste - image & cost i.e. Resnet ▪ Beverage containers a success, can we duplicate? ▪ Biomass stories in NB 	<p>What is missing? What needs to happen next?</p> <ul style="list-style-type: none"> ▪ How to get value from other waste streams? ▪ Provincial policy, not just 12x zones (landfill) ▪ Green procurement – provincial tenders, score system ▪ Value add for glass, especially green glass ▪ Develop systems/strategies for small communities ▪ Regional recycling programs (NB/NS/PEI) ▪ Producer liability- lifecycle, internalize ▪ Commodity VS value add- creates more value i.e. what is retail value of e-waste?
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	<ul style="list-style-type: none"> ▪ Incentives for value added products from waste ▪ Inventory of waste, by products ▪ Partnerships- waste generator and users
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Opportunity – Solar	
<p>What is happening? What is working?</p> <ul style="list-style-type: none"> ▪ Net metering program - barebones ▪ Public demand, people hungry for it ▪ Solar cost reduction ▪ Awareness created by Tesla + Solarcity 	<p>What is missing? What needs to happen next?</p> <ul style="list-style-type: none"> ▪ Tax on total rw/hr instead of net kw/hr difference ▪ Incentives - feed in tariff to launch ▪ Mandated carbon penalty incorporated into NB Power model ▪ Taking advantage of federal funding ▪ Education ▪ Leasing, financing option for solar energy storage - low interest loan from government ▪ Building code change ▪ Net metered reset in March ▪ Smart grid integration ▪ Solar infrastructure, vision, almost zero solar in NB ▪ Lack of Infrastructure for solar projects

Opportunity – Policy & Targets	
<p>Policy</p> <ul style="list-style-type: none"> ▪ Need for institutional capacity (government departments) to develop policy and targets (need a body of people who can lead this) ▪ Priority policies ▪ Need for integrated cross-departmental infrastructure in order to draft + implement policy- policy by 'department' will not work – need a green lens over everything, jobs, innovation ▪ Green auditor who oversees the implementation of green lens ▪ There has been an effort to 'break down silos' 	<p>Targets</p> <ul style="list-style-type: none"> ▪ Which targets should we set? ▪ Need to respond to regional, national, global trends (i.e. phase out coal) ▪ Implications of these trends, need to be ready for federal policy directions, net zero homes, green procurement ▪ We are reacting to fed decisions instead of being proactive ▪ Zero waste targets ▪ Currently no incentives (or hard to find) for industry to pursue this ▪ Increase small business tax investor tax credit to incent people to invest in clean tech, increase provincial SR&ED credit to be best in country

<ul style="list-style-type: none"> ▪ Need materials or collateral for community groups + private institutions (ex of Ontario doing well) ▪ Market conditions are a positive force on policy ▪ Adopt policies to fit different models (community VS industry projects) 	<ul style="list-style-type: none"> ▪ Carrot/stick concept ▪ Be hydro model – time frame to implement before consequences ▪ We need aggressive energy efficiencies policy ▪ Evidence based social, psychological, tech and science research ▪ Communication strategy is critical ▪ How do decisions like Energy East pipeline align with directives like the Green Economy? ▪ How can we accelerate using policy + targets? ▪ Energy efficiencies ▪ Community Energy Plan (i.e. Fallsbrook Centre, EOS Eco-Energy)
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Lessons Learned

This summit was one in a series of sector specific Opportunities Summits throughout the Province. For every summit lessons learned are noted to inform future Summits in the series.

What went well

- Great keynote presentation
- Great turnout considering location and timing (Edmundston 9am Monday morning!)

What could be improved

- Late time change made travel more difficult
- More engagement of youth/students

NEXT STEPS

Summit Survey

Following the summit a survey was sent to the participants to collect additional input on the ideas discussed and the event itself. This feedback helps us to assess which discussions resonate beyond the summit, as well as to continue to improve future summits.

Summit-Specific Report

Following each summit a report of the ideas generated (this document) and participant feedback (Appendix B) is shared with all participants following the summit.

All-Summits Report

After the full series of summits have been completed a final report will be prepared and shared with all summit participants. This is meant to provide visibility of the ideas generated from other summits and to highlight common themes related to the opportunities.

Early Opportunities

The Jobs Board Secretariat plans to identify and advance initial opportunities coming from the summits in partnership with Opportunities NB and lead departments, and to test the opportunities-model of economic development using the 5-policy pillar structure on these early opportunities. We will also identify opportunities that would benefit from further study and those that government is not well-positioned to lead, and share this assessment with the community of participants and interested New Brunswickers.

Implementing Policy Conditions for Growth

Finally, with your help, we will identify the best growth opportunities for New Brunswick. The Jobs Board Secretariat will lead the formation of cross-departmental teams, the development opportunity plans and measures, and assist in the implementation of the necessary policies to create the conditions growth. GNB will then track the progress and outcomes of these efforts and report those findings.

Future Summits

Consideration is being given to hosting follow-up summits in 2016 and early 2017 to explore whether this approach is demonstrating early results, discuss how it could be improved, and what has changed with the opportunities for NB's economic growth.

APPENDIX A: ATTENDEES

Name/Nom	Organisation/Organization
John Adams	Stantec
Sam Arnold	sustainable Energy Group
Lynn Arsenault	NB Power
Seth Asimakos	Pond-Deschpande Centre UNB / Saint John Community Loan Fund
Daniel Beauregard-Long	Corruven Inc. - Innovative Wood Technologies
Tom Beckley	UNB - Forestry
Alain Bélanger	Corruven Inc. - Innovative Wood Technologies
Luc Bernard	Design Built Mechanical
Bill Borland	Dillon Consulting Ltd
Lindsay Bowman	New Brunswick Innovation Foundation
Ken Bryenton	Environment and Local Government
Pat Burke	RT Tech Software
Kate Butler	SNB
Felipe Chibante	University of New Brunswick - Nano Sciences
Louise Comeau	Climate Action Network Canada
David Coon	MLA Fredericton South
Lois Corbett	Conservation Council of New Brunswick (CCNB)
Peter Corbyn	Green Nexus
Claude Cormier	Roy Consultants
Chantal Daigle Verrier	Exp Services Inc.
Charlotte Daigle-Basque	Opportunités New Brunswick
Sebastien Duguay	City of Edmundston
Jim Emberger	New Brunswick Anti-Shale Gas Alliance
Sean Fleming	Solar Global Solutions
Darryl Ford	Fundy Engineering / APEGNB
Rudi Fowler	Epic Energy
Stephen Fyffe	ADM Systems Engineering Ltd. (engineering and software service)
Keelen Gagnon	SimpTek Technologies
Perry Haines	Environment and Local Government
Asif Hasan	SimpTek Technologies
Pierre Hebert	IPL Inc. Edmundston Plant
Garth Hood	Thoughtful Dwellings
Robert Kiely	Envirem Organics
Micheline Lavoie	CBDC Madawaska Inc
Jeff Leger	Canadian Energy (CDNRG)
Michel Losier	NB Power - Energy Efficiency

Name/Nom	Organisation/Organization
Duc Luong	Butterfly Energy
Jordan MacDonald	Thermalwise
Raissa Marks	New Brunswick Environmental Network (NBEN)
Mark McCann	MJM Solar
Pat McCarthy	Recycle NB
Gwen McIntyre	JEDI
Denis Nadeau	Architects Association of NB
Victor Nowicki	ARC Geobac Group
Ross Perley	Tobique First Nation
Tanna Pirie-Wilson	Tobique First Nation
Sylvain Poirier	Collège Communautaire du Nouveau-Brunswick
Beth Pollock	NB Power - Energy Efficiency
Bruce Richards	Canadian Energy (CDNRG)
Joel Richardson	Canadian Manufacturers & Exporters / SPARK
Roy Ries	New Brunswick Anti-Shale Gas Alliance
Lesley Rogers	Environment and Local Government
Roger Roy	New Brunswick Groundwater Association Inc.
Gilles Roy	U de M - Engineering
Lara Ryan	Canada Green Building Council (CaGBC) - Atlantic Chapter
Kevin Shiell	Atlantic Council for Bioenergy Cooperative / Complete Energy Systems Inc.
Kelli Simmonds	Environment and Local Government
Craig Storey	Shift Energy
Ben Sweet	SCG Industries
Nicolas Bastien	The Gaia Project
Carmen Travis	MCW Maricor
Stephen Tweedie	Tweedie & Associates Consulting Engineers Ltd.
Amit Virmani	Naveco Power
Bernard Morin	Thermopak
Charles Martin	Energy Edmundston
Justin Landry	Edmundston Electriques
Jean Paul	Edmundston Electriques
Philippe Dunsky	Dunsky Consulting
Jean-Remi Lanteigne	Thermopak

GNB Participants	
Hon. Brian Gallant	Premier
Hon. Brian Kenny	Minster of Environment and Local Government
Ken Bryenton	Environment and Local Government
Darwin Curtis	Environment and Local Government
Kelli Simmonds	Environment and Local Government
Lelsey Rogers	Environment and Local Government
Perry Haines	Environment and Local Government
Charlotte Daigle-Basque	Opportunities New Brunswick
Eddie Kinley	Opportunities New Brunswick
Kate Butler	Service New Brunswick
Susan Holt	Jobs Board Secretariat
Hemant Kumar	Jobs Board Secretariat

**APPENDIX B: Participant Feedback
COMING SOON**

APPENDIX C: Tom Beckley – UNB: The Millennial Green Economy Summit

Following the Summit, Dr. Tom Beckley, Associate Professor in the Faculty of Forestry and Environmental Management at UNB ran a "mini-summit" - the Millennial version during his ENR2004 Social and Cultural Values.

The format closely followed the Summit's and in addition he had the students email their answers to the following question, "Would you like a Green Job in New Brunswick? And if so, what would that be?"

The results were combined into a Powerpoint presentation and are included in the Summit report.

Also, as a direct result of the Summit, the Honorable Minister Kenny also visited Dr. Louise Comeau's climate change course in the Faculty of Forestry and Environmental Management.

THE GREEN ECONOMY OPPORTUNITIES SUMMIT



Tom Beckley
ENR 1002

WHAT HAPPENED YESTERDAY?

- Summit on the Green Economy
 - Edmundston, NB – 4 April 2016
 - The 20th of 22 Summits all around the province on different sector issues
- Address by Premier Gallant & Env. Minister
- Address by Phillipe Dunsky
 - Dunsky Energy Consulting (Montreal)
- 3.5 Hours of small working groups for brainstorming, problem identification, charting direction
- My biggest complaint
 - Only 3-5 of the 75 people there were under the age of 35
- So we are going to hold the YOUTH Green Economy Summit today



HOW WILL WE DO IT?

- We were asked 3-4 questions, which we discussed in small groups
- Lots of recording and reporting back of ideas
- I will replicate the same questions
 - I want our groups to have recorders
 - We will have a truncated “report back” time
 - Modify the final session
- I would like to record the results from today and try to get the organizer (Susan Holt from the Jobs Secretariat) to include this input in their report
 - At a minimum they will consider it and get the message about youth inclusion

FIRST – A VERY BRIEF REVIEW OF DUNSKY

- Premier's talk was also good
 - He said a lot of the right things (from my perspective) and seemed to really be sincere about listening and using the content of the summit
- Dunsky
 - Used a Wayne Gretzky metaphor
 - “Don't skate to where the puck is, skate to where the puck is going to be”
 - I think Gretzky's genius was actually putting the puck where his teammates needed to go to get it and in doing so he changed their behaviour
- Wind Power – 10 times price drop –
 - 423,000MW capacity, soon to be over 700,000
- Solar Power – 100 times price decline –
 - 233,000 MW capacity, soon this will explode



MORE DUNSKY



- **Disruptive business models**
 - Battery Storage – 10 times decline in battery prices
 - Water Heaters (NB Power)
 - Energy waste is still huge
 - Energy efficiency is the low hanging fruit
 - Capture and re-use “waste heat”
 - Cheapest energy is the energy you don’t use (savings) from efficiency or conservation investments
- **There will be winners and losers in the Energy Transition – who will lose?**
- **COAL!**
 - Banks are not loaning for new coal fired power plants in N. America
- **Investors that hang on to the carbon economy too long**
- **Take home messages**
 - Max out easy hits, make space in the economy (& set targets), be flexible and thoughtful about what the opportunities are (there will be “green economy losers”), make the tough choices (show political leadership), and believe in New Brunswick (stop the “That can’t work here” talk)

WHAT DOES THE GREEN ECONOMY LOOK LIKE IN 2040?

- List some attributes of the Green Economy in NB should/could look like in 24 years
 - Group 1: Increased electric vehicles, more advanced solar technology, shift mindset toward more green research, localization of food and resources, reduce waste and more intensive recycling, reduction in factory farms, less meat consumption, recycle electronics.
 - Group 2, more research and more jobs in renewables, transition programs high tech better farming practices, compost, reduce waste/landfill- intense recycling, quality over quantify, reforestation, decrease globalization, carbon tax
 - Group 3 more renewable energy sources (diversity), mandatory recycling, more greenhouse farming, more government grants, more local food sources, more green tech, no disposable batteries, more investment in green energy, modernize forestry practice, increase self sufficiency, move to small scale privatization,
 - Group 4 – Green technology, increase battery operated public transit, urban forests, better access to renewables, less waste, deal with e—waste, local food, increased support, more engagement with nature, eco-tourism.
 - Group 5 – No coal or fossil fuel power plants, permaculture, higher renewable energy targets, revised recycling program, re-evaluate fossil fuel technology (fracking), education in the green economy, encouragement for retrofitting, tree planting (more diversity).

WHAT DO WE NEED TO DO IN THE NEXT 3 YEARS TO GET US TO THE GREEN ECONOMY?

- Growth opportunities?
- Group 1 – reform education, elementary, farming/gardening training, grants and loans to local producers, increase forest carbon taxation, societal change (people's views and attitudes, reduce costs of renewable resources, increase hydroelectric production, better public transportation
- Group 2 – encourage voting, grants for research and students, tax breaks on electric cars, small organic farms & green tech, energy buyback, education programs, grocery stores buy local, recycling incentives, encourage less waste, community forests, carbon tax, tiny homes, restrict Crown land management silviculture, food waste regulations in restaurants, more public participation
- Group 3 – education (in schools and of the general public, set standards and enforce them, incentives, reduce peak energy flow, recycling programs, municipal waste programs (recycling, waste, compost), green contracting and mandatory green certifications

WHAT DO WE NEED TO DO IN THE NEXT 3 YEARS TO GET US TO THE GREEN ECONOMY?

- Group 4 – Better education funding, volunteer programs, funding green research, politicians focus on green investments, educated politicians, proportional representation & political transparency, equal media coverage for all political parties, optimism (media, politics and green investment), carbon tax, incentives, increase conservation lands, better waste disposal, energy awareness and conservation
- Group 5 – implementing incentive programs, education in public schools, compost, trials for better recycling sorting, make Fredericton a pilot community for public transit efficiency, carbon tax, sustainable food production, change policies for retrofitting buildings & subsidize it

THEMATIC DISCUSSIONS - EDUCATION

What is working?

- Three R training in elementary schools
- The Forest School in Sussex

What needs to change? What is missing? The gap?

- Need forest schools for older ages
- Environmental ed in high school
- Reduce cost of higher education
- Coordination of degree programs
- Nature Deficit Disorder – get kids outside
- Educate societal attitudes
- Education on politics
- Education on agriculture

THEMATIC DISCUSSIONS – LOCAL FOOD, SUSTAINABLE AGRICULTURE

What is working

- Farmer's market
- Organic farming
- Real Food Connections

What needs to change? What is missing? The gap?

- Food prices (for good quality)
- Farmer's markets in all towns
- Increase free range animals
- Sell wild game
- Buy local programs
- More community gardens
- Large scale greenhouses
- Support local groceries over big chain stores

THEMATIC DISCUSSIONS – REDUCE, RECYCLE, WASTE

What is working

- Methane recapture at landfills
- Water treatment

What needs to change? What is missing? The gap?

- More recycling bins
- Education on zero waste
- Green packaging
- Enforcement against illegal dumping
- Focus on long use products vs. cheap good that don't last
- Use grey water
- Water limits

THEMATIC DISCUSSIONS – GREEN ENERGY

What is working

- Methane recapture at landfill
- Demand for green tech
- People are understanding cascading effects of their actions
- Green tech companies on the rise (Tesla)

What needs to change? What is missing? The gap?

- Need time of use rates
- Politicians (generation gap)
- Shift to the ecological paradigm
- Less corporate control of govt
- Divesting of fossil fuels
- Public knowledge of their level of significance
- Incentives for green tech

THEMATIC DISCUSSIONS - FORESTRY

What is working

- Selling to the States
- Certification for industry
- Replanting programs
- Volume of harvest
- Growth rate for plantations

What needs to change? What is missing? The gap?

- Increase efficiency in the mills
- Less mechanization in the forest
- Value added in Canada & NB
- More diverse forest
 - Increase silviculture grants for uneven aged management
- Funding for environmental standards in small scale forestry

DO YOU WANT A GREEN JOB IN NEW BRUNSWICK? IF SO, WHAT IS IT?

- Yes, I want to have a green job in NB. At this point, I hope to find **a green job on growing local food**. I have interest in growing fruits and vegetables, observing the growth of these food and harvesting them. All these procedures are full of joy. Also, this job could benefit the environment and help to realize green economy.
- To answer the last question posed in class today, the green job I would like to have in New Brunswick would be **running my own Forest School for kids**. This way, I could combine my love for working with kids with my love for the environment.
- If the opportunity was available I would like to play a part in **managing the Saint John River watershed** and its joint smaller order streams throughout New Brunswick.
- Yes I do want to have a green job. I would like to go around New Brunswick (In a small electric car if possible) **educating citizens on permaculture**. You said there is no training in New Brunswick for permaculture. So I think if we started a program where we would travel from school to school (especially high/middle schools) educating and showing the benefits of permaculture it could be a start to a greener New Brunswick.

DO YOU WANT A GREEN JOB IN NEW BRUNSWICK? IF SO, WHAT IS IT?

- I would like to have a green job in **wildlife conservation and environmental protection**. I would also like to have the opportunity to buy from Green Companies for everyday needs like local food and electric cars or solar panels to power my house.
- This is my dream job. To be able to **rescue animals, and help them recover from either being hurt or sick**, to being healthy and put back into the wild. This is what I want to do as a job. And yah, it probably doesn't pay much. But I would have another job that is maybe helping the environment from being polluted, and I could be coming up with ideas to help save the planet.
- I would love a green job in New Brunswick. Picking one is the hard part. I have worked with the NTN but I guess if I were to do something different I would like to work with Get Outside! NB to **help educate the younger generation about outdoor leadership and help to connect them with nature**.
- I am not overly positive what kind of title this job would have, but I would love to work in **the renewable energy sector**.

DO YOU WANT A GREEN JOB IN NEW BRUNSWICK? IF SO, WHAT IS IT?

- Would like to work in water conservation, something to do with **clean drinking water in third-world countries**. or ocean marine conservation. Another dream is to be able to educate "missionaries" or "students" to go into developing countries to teach the people agriculture practices, and implement water conservation devices. or start agriculture practices in those developing countries. **Mainly I would like to educate youth on how to be better stewards of this planet.**
- **I do want to work at a green job in NB after I graduate. It seems like New Brunswick has missed its opportunity to develop an economy like other Canadian provinces and I think that a green economy would be a good way to bring back people that have left for elsewhere. My ideal green job though would be in politics, helping establish policies that make New Brunswick a leader in sustainable development.**
- **I would love a green job in New Brunswick. An ideal one for me would be to work at an NGO such as Nature Trust of New Brunswick, Conservation Council of New Brunswick or the Nature Conservancy. I would also love the opportunity to work in a place where I could educate people about environmental issues such as climate change. An NGO that does a lot of public outreach would be ideal for myself.**

DO YOU WANT A GREEN JOB IN NEW BRUNSWICK? IF SO, WHAT IS IT?

- **I would like a green life.** I hope that in the future all jobs will be Green and account for environmental impact. I want to set up a **homestead and take care of the land** and myself and my pets. Permaculture, aquaponics, renewable energy generation to get off grid. -- I wonder if the water flowing through an aquaponics system back to the base pump can be used to generate power?? I digress... In 2 years time, however, I have no idea what green job I'd like to be in. Something involved in local food production possibly.
- I would love a green job in New Brunswick. An ideal one for me would be to work at an NGO such as Nature Trust of New Brunswick, Conservation Council of New Brunswick or the Nature Conservancy. I would also love the opportunity to work in a place where I could **educate people about environmental issues such as climate change**. An NGO that does a lot of public outreach would be ideal for myself.
- I have a green job in NB. I work as **chemical engineering for an industrial wastewater management company**. Our work is not necessarily in NB but we are headquartered here. We do have some clients in NB.

DO YOU WANT A GREEN JOB IN NEW BRUNSWICK? IF SO, WHAT IS IT?

- I would love to work in New Brunswick as it is my home province and I love it. I would be interested in doing something like **education coordinator for green initiatives** or something like that.
- I don't know because I want to be in **forest operations building roads and cutblocks** but they are also responsible for up holding certification of SPF and ISO.
- I would really like to see and **be a part of many new community forests** being created throughout the province. I would also like to work towards harvesting more non timber forest products, this would strengthen the local economy and as we all know, it is better for the environment to buy local. Creating an economy that is less reliant on timber and more reliant on the other products that the forest has to offer, at a much lower environmental cost is something that I would like to work towards in my career.
- My dream job would be to **educate people on the affects that their daily lives are having on the environment**. I would love to live as off-the-grid as possible and then show people how they can do the same. I think that it is just as important to teach children as it is adults about environmental issues, and get them outside learning.

DO YOU WANT A GREEN JOB IN NEW BRUNSWICK? IF SO, WHAT IS IT?

- I would be interested in doing something **like education coordinator for green initiatives** or something like that.
- I do want a green job in New Brunswick. Ideally, it would be **a job where I could create more green jobs**, or improve the overall "greenness" of the company that I work for. I want a job where I have opportunities to improve conditions and sufficiency in favor of the environment.