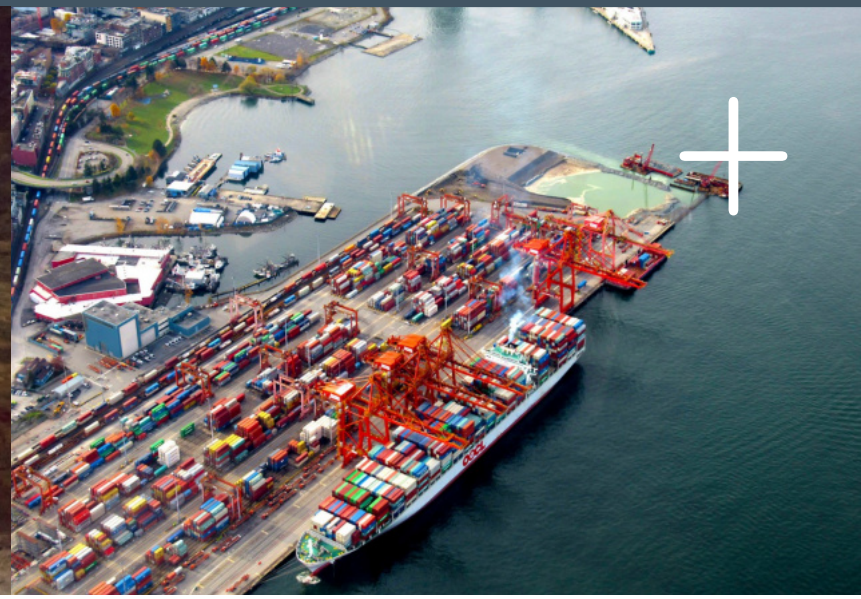
Nemaska Lithium Hydroxide Conversion Plant

A voluntary ESIA using an Issue-Based Approach



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Development of the EV Battery Market in Becancour (Quebec, Canada)

Context

- Support for decarbonization of transportation
- Hydropower as main source of energy in Quebec
- Quebec is an ideal location to attract EV battery industries
- Flagship strategy of the provincial government of Québec

Bécancour Industrial Park and Port

- Located between Montréal and Québec City
- Deep water port, railway, roads, natural gas

Nemaska Lithium Inc. (NLI)

- Fully integrated project
- Among the first EV battery projects announced in Becancour

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New EV battery Industry – Perspective and Challenges

+ Perspective
  - Decarbonization of the economy and transportion
  - Employment opportunities (1,500 direct jobs announced)
  - Regional growth and prosperity

+ Challenges and concerns
  - Consumption of finite mineral resources
  - Use of land to develop industrial parks
  - Massive arrival of new workers relocating in the region
  - Capacity of socio-economic systems
    > Housing
    > Health care
    > Services to families (daycare, schools)

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ESIA as a Tool to De-risk the NLI Conversion Project ("the Project")

- NLI made a decision to carry-out a voluntary ESIA

  (Production capacity is below the treshold that triggers a mandatory provincial ESIA.)

- Objective: De-risk the Project through open dialogue
  - Social acceptance
  - Full transparency of the project environmental impacts
  - Smooth integration in the region
  - In a context of Just Transformation (new EV industry) minimize inequitable outcomes the Project could have on biophysical and human environment

Pros – Voluntary ESIA

- ✓Engage with local communities to identify concerns (economic boom is tranforming their region)
- ✓Understand the rights and needs of Indigenous and non-Indigenous communities (right owners / stakeholders)
- ✓Map out regional context that could impact/be impacted by the Project (availability of housing, access to eductional programs and labors, etc.)
- ✓Position NLI as a catalyst for change (collaboration opportunity with local stakeholders to improve socio-economic systems)
- ✓Early identification of mitigation (better planning of the detailed engineering and execution phases)

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Integrated Team

Nemaska Lithium

Project Proponent

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Consultant (ESIA Lead)

- Responsible for ESIA management and delivery

TRANSFERT Environnement et Société

Consultant (Engagement Lead)

- Coordination of community engagement activities (non-Indigenous and Indigenous)

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ESIA - Issue Based Approach (Methodological Considerations)

+ Creation of a new industry deserves to be assessed using an inclusive and multi-dimensional perspective
  > Just Transformation
+ Issue-based approach is recognized to be more integrative
  > Enables assessment of VECs focused on key-issues
+ ESIA by Issues are the preferred approach Quebec since 2017
  > Technical robustness was important (voluntary ESIA)
  > Provincial guidelines on issue-based impact assessment
+ More accessible ESIA summary report

(https://www.environnement.gouv.qc.ca/evaluations/documents/eie-guide-par-enjeu.pdf)

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9 Issues

16 VECs

- Circular economy
- Noise
- Greenhouse gases
- Soil Quality
- Quality of surface and groundwater
- Wetlands
- Air Quality
- Quality of life and public health (non-Indigenous)
- Quality of life and public health (Indigenous)
- Land use
- Landscape
- Health and safety of workers
- Regional economy
- Standard of living
- Wildlife and flora of cultural significance
- Fauna (aquatic and terrestrial)

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Examples of Issues and Related VECs

Challenges

- Some VECs are applicable to more than one issue
- Easy to confuse Issues and VECs

Applied approach

- Professional Judgement
- Flexibility

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From Issues to Positive Outcomes
(a few examples…)

ISSUE

Management of process waste

(324,000 tpy)

VEC

Circular Economy

MITIGATION MEASURES

+ Temporarily landfilling in dedicated cells
+ Collaboration with R&D projects to create a regional circular economy (NRCC, CTTEI, etc.)
+ Develop *Letters of Intent* with multiple potential end users

POSITIVE OUTCOMES

+ Parallel market will be developed to sell residues as inputs into other manufacturing processes.
+ More business and employment opportunities will be created
+ Reduce consumption of natural resources (replaced by waste)

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From Issues to Positive Outcomes
(a few examples…)

ISSUE

Socio-economic expectations

VEC

Regional economy

MITIGATION MEASURES

+ Collaboration with educational institutions to develop programs tailored to the need of the new EV battery industry.

+ Communication to local stakeholders about commercial opportunities, labor needs and timeline.

POSITIVE OUTCOMES

+ Access to a qualified labour force

+ Training the next generation

+ Reduce labour impact on local small and medium size businesses to large EV battery companies.

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Indigenous Engagement

- Project site is located on the Ndakina (ancestral land of the W8banaki Nation)
  - Acknowledgement of the Rights of the W8banaki Nation is important AND complex
  - One (1) dedicated chapter of the ESIA prepared by the W8banaki.
- Some concerns raised by the W8banaki
  - Project would impact species of cultural importance for the Nation (Black Ash, Sweetgrass, small game, etc.)
  - W8banaki Nation is losing another location to practice traditionnal activities and transfer cultural knowledge between generations
- Mitigation measures to reduce the impacts of the Project on the Rights of the W8banaki Nation
  - Participation of the W8banaki technical specialists to carry-out the archeological study and small game survey.
  - Planting of Black Ash as part of site landscaping.
  - Collaborate with the W8banaki Nation on other projects.
  - Develop an Indigenous employment strategy.
  - Develop training material about Indigenous realities and culture to address diversity and inclusion.

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Conclusions

- Voluntary ESIA allowed the project team to more fully address considerations about the human environment
  - Environmental permitting focuses mostly on biophysical environment
- The voluntary ESIA was helpful to:
  - De-risk the Project business case by engaging with the population to understand their concerns
  - Identify mitigation to balance distribution of positive outcomes across Indigenous and non-Indigenous stakeholders
- Development of the new EV battery market in Quebec deserves to be adressed with a perspective of Just Transformation
- The issue-based approach enables assessment of VECs focused on key issues (Inclusive approach that brings a multi-dimensional perspective to the assessment of the Project)
- Lessons learned
  - Limit the number of issues (9 issues was a lot!)
  - Clearly differentiate issues and VECs

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Link to the ESIA:

Une démarche volontaire d'évaluation environnementale et sociale à la hauteur du projet d'usine de Nemaska Lithium | Consultations Nemaska Lithium

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