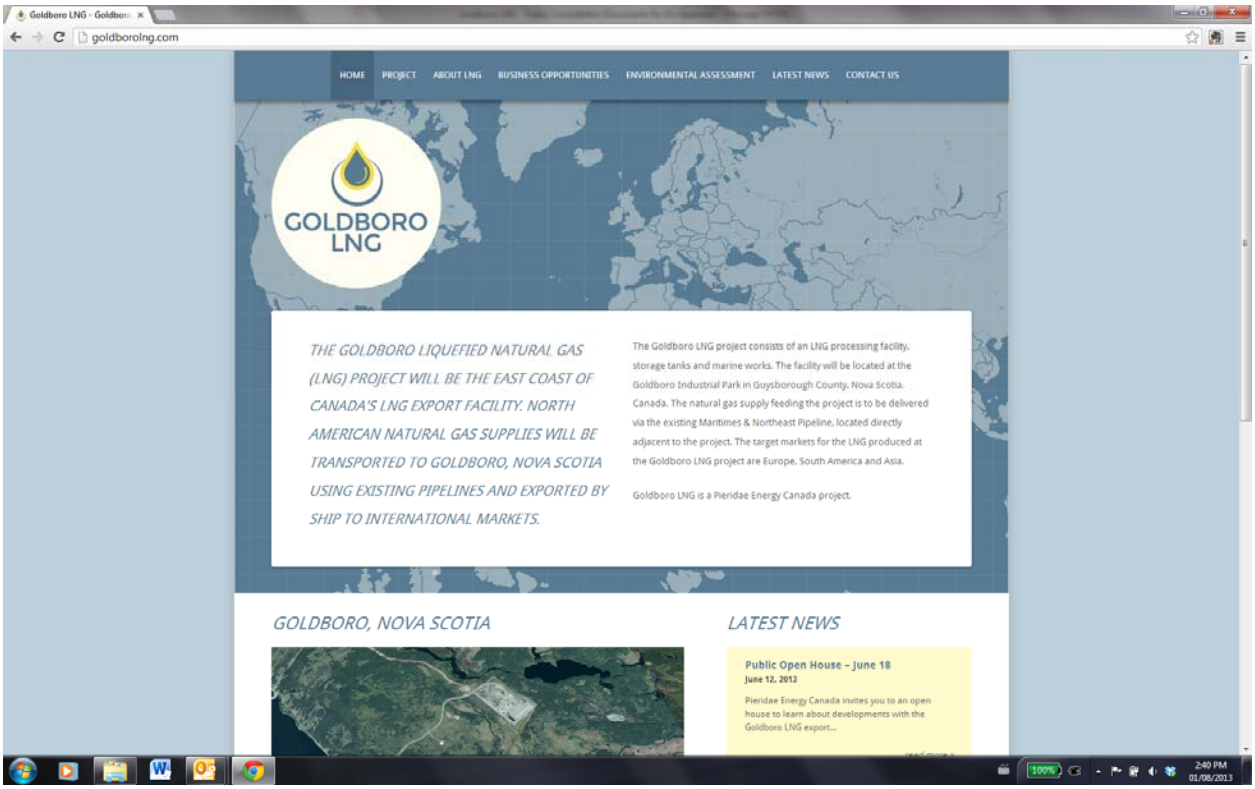
APPENDIX O

PUBLIC CONSULTATION DOCUMENTATION

GOLDBORO LNG

Appendix O1
Project Website Screenshots


Goldboro LNG - Goldboro
goldborolng.com
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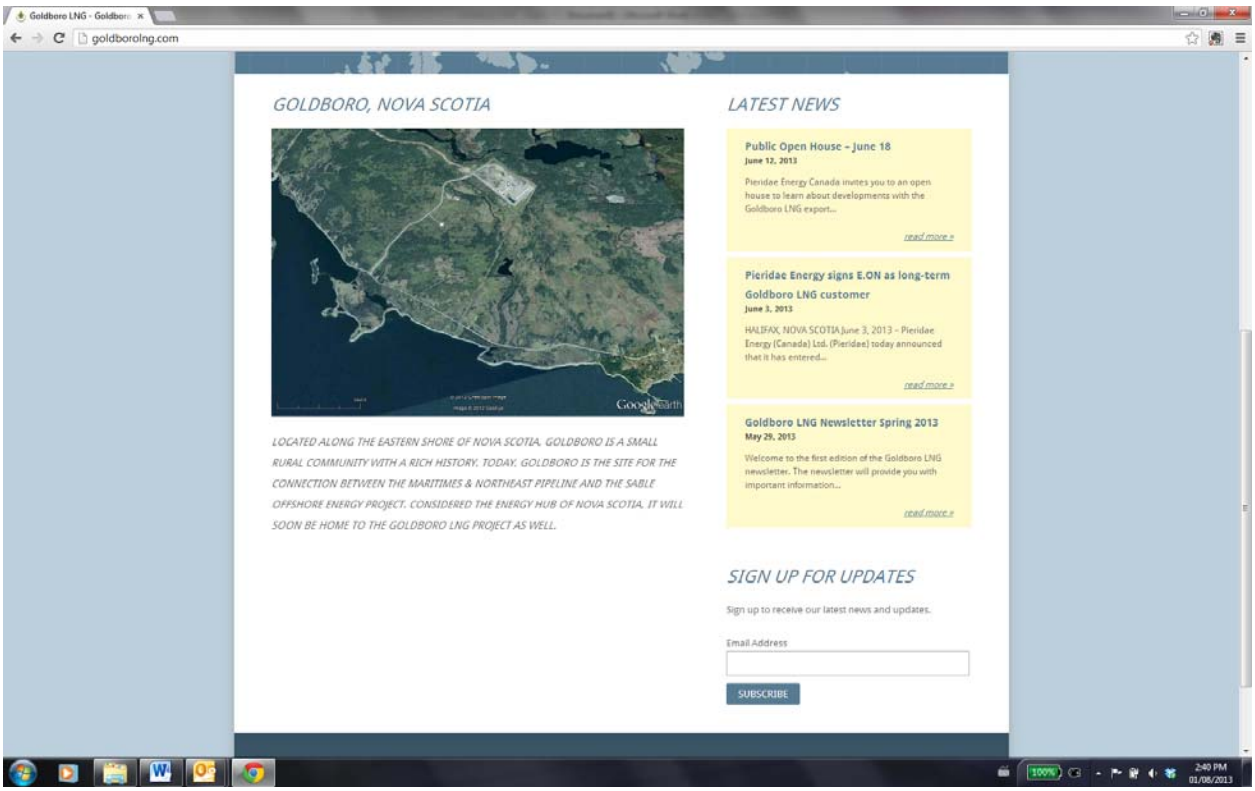
CONTACT US
GOLDBORO LNG
THE GOLDBORO LIQUEFIED NATURAL GAS (LNG) PROJECT WILL BE THE EAST COAST OF CANADA'S LNG EXPORT FACILITY. NORTH AMERICAN NATURAL GAS SUPPLIES WILL BE TRANSPORTED TO GOLDBORO, NOVA SCOTIA USING EXISTING PIPELINES AND EXPORTED BY SHIP TO INTERNATIONAL MARKETS.
The Goldboro LNG project consists of an LNG processing facility, storage tanks and marine works. The facility will be located at the Goldboro Industrial Park in Guysborough County, Nova Scotia, Canada. The natural gas supply feeding the project is to be delivered via the existing Maritimes & Northeast Pipeline, located directly adjacent to the project. The target markets for the LNG produced at the Goldboro LNG project are Europe, South America and Asia.
Goldboro LNG is a Pieridae Energy Canada project.
GOLDBORO, NOVA SCOTIA
LATEST NEWS
Public Open House – June 18
June 12, 2013
Pieridae Energy Canada invites you to an open house to learn about developments with the Goldboro LNG export...
2:40 PM
01/08/2013


Goldboro LNG - Goldboro
goldborolng.com
GOLDBORO, NOVA SCOTIA
Google Earth
LOCATED ALONG THE EASTERN SHORE OF NOVA SCOTIA, GOLDBORO IS A SMALL RURAL COMMUNITY WITH A RICH HISTORY. TODAY, GOLDBORO IS THE SITE FOR THE CONNECTION BETWEEN THE MARITIMES & NORTHEAST PIPELINE AND THE SABLE OFFSHORE ENERGY PROJECT. CONSIDERED THE ENERGY HUB OF NOVA SCOTIA, IT WILL SOON BE HOME TO THE GOLDBORO LNG PROJECT AS WELL.
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June 12, 2013
Pieridae Energy Canada invites you to an open house to learn about developments with the Goldboro LNG export...
read more »
Pieridae Energy signs E.ON as long-term Goldboro LNG customer
June 3, 2013
HALIFAX, NOVA SCOTIA June 3, 2013 – Pieridae Energy (Canada) Ltd. (Pieridae) today announced that it has entered...
read more »
Goldboro LNG Newsletter Spring 2013
May 29, 2013
Welcome to the first edition of the Goldboro LNG newsletter. The newsletter will provide you with important information...
read more »
SIGN UP FOR UPDATES
Sign up to receive our latest news and updates.
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01/08/2013

Project Overview - Goldb

goldboroIng.com/project/project-overview/

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GOLDBORO LNG

- PROJECT OVERVIEW
- PROJECT BENEFITS
- PROJECT SITE
- SAFETY
- COMMUNITY
- ABOUT PIERIDAE ENERGY
- MANAGEMENT TEAM

PROJECT OVERVIEW

Goldboro LNG will include a natural gas liquefaction plant and facilities for the storage and export of LNG, including a marine jetty for loading. The facility is anticipated to produce approximately ten million metric tonnes of LNG per year and have on-site storage capacity of 690,000 cubic metres of LNG.

The facility is located adjacent to the Maritimes & Northeast Pipeline, a 1,400-kilometre transmission pipeline system built to transport natural gas between developments in Nova Scotia, Atlantic Canada and the northeastern United States.

FACILITY OVERVIEW

- **Send-out Capacity:** Up to 10 million tonnes/year
- **Max LNG Carrier Capacity:** 145,000 – 263,000 m^3
- **Storage Tanks:** 3 x 230,000 m^3
- **Shipments Expected:** 7-13 shipments/month
- **Other Project Components:** Access road / berthing for tug boats / construction jetty
- **Commercial Operations Begin:** Early 2019
- **Capital Expenditures:** ~$5.0- 10 billion CAD

PROJECT TIMELINE

2012 **INITIAL CONSULTATION WITH STAKEHOLDERS**

COMMENCEMENT OF THE ENVIRONMENTAL ASSESSMENT
PROVINCE OF NOVA SCOTIA

2:41 PM 01/08/2013

Project Site - Goldboro LN

goldboroIng.com/project/project-site/

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- PROJECT SITE
- SAFETY
- COMMUNITY
- ABOUT PIERIDAE ENERGY
- MANAGEMENT TEAM

PROJECT SITE

Goldboro LNG will be located in the Goldboro Industrial Park in the Municipality of the District of Guysborough, Nova Scotia, Canada. View a map of Guysborough (PDF).

LOCATION ADVANTAGES

Goldboro LNG will be the east coast of Canada and the United States' closest mainland LNG export terminal to Europe and India. Its location, Goldboro, Nova Scotia, provides substantial advantages for transporting LNG to key markets.

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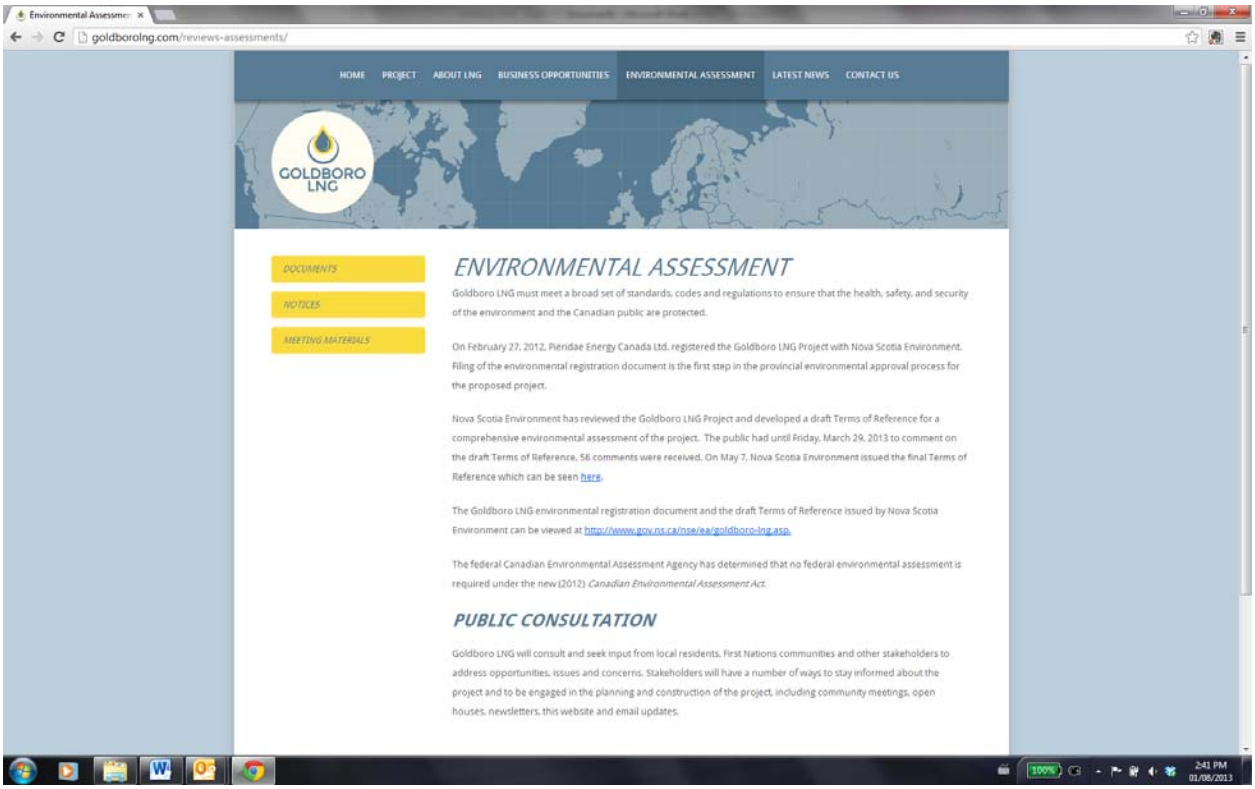
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goldboroIng.com/reviews-assessments/
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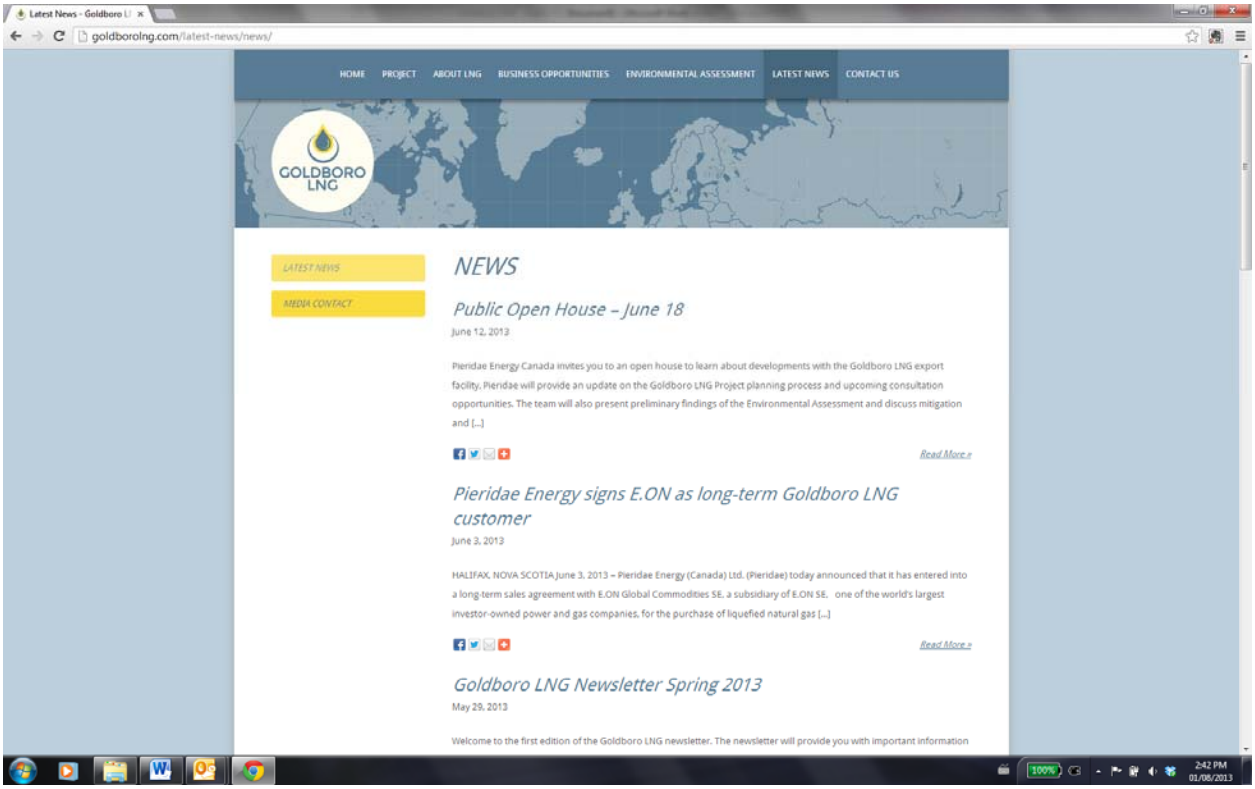
MEETING MATERIALS
ENVIRONMENTAL ASSESSMENT
Goldboro LNG must meet a broad set of standards, codes and regulations to ensure that the health, safety, and security of the environment and the Canadian public are protected.
On February 27, 2012, Pieridae Energy Canada Ltd. registered the Goldboro LNG Project with Nova Scotia Environment. Filing of the environmental registration document is the first step in the provincial environmental approval process for the proposed project.
Nova Scotia Environment has reviewed the Goldboro LNG Project and developed a draft Terms of Reference for a comprehensive environmental assessment of the project. The public had until Friday, March 29, 2013 to comment on the draft Terms of Reference, 56 comments were received. On May 7, Nova Scotia Environment issued the final Terms of Reference which can be seen here.
The Goldboro LNG environmental registration document and the draft Terms of Reference issued by Nova Scotia Environment can be viewed at http://www.gov.ns.ca/nse/ea/goldboro-lng.asp.
The federal Canadian Environmental Assessment Agency has determined that no federal environmental assessment is required under the new (2012) Canadian Environmental Assessment Act.
PUBLIC CONSULTATION
Goldboro LNG will consult and seek input from local residents, First Nations communities and other stakeholders to address opportunities, issues and concerns. Stakeholders will have a number of ways to stay informed about the project and to be engaged in the planning and construction of the project, including community meetings, open houses, newsletters, this website and email updates.
2:41 PM
01/08/2013


Latest News - Goldboro LI
goldboroIng.com/latest-news/news/
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NEWS
Public Open House – June 18
June 12, 2013
Pieridae Energy Canada invites you to an open house to learn about developments with the Goldboro LNG export facility. Pieridae will provide an update on the Goldboro LNG Project planning process and upcoming consultation opportunities. The team will also present preliminary findings of the Environmental Assessment and discuss mitigation and [...]
Read More »
Pieridae Energy signs E.ON as long-term Goldboro LNG customer
June 3, 2013
HALIFAX, NOVA SCOTIA June 3, 2013 – Pieridae Energy (Canada) Ltd. (Pieridae) today announced that it has entered into a long-term sales agreement with E.ON Global Commodities SE, a subsidiary of E.ON SE, one of the world's largest investor-owned power and gas companies, for the purchase of liquefied natural gas [...]
Read More »
Goldboro LNG Newsletter Spring 2013
May 29, 2013
Welcome to the first edition of the Goldboro LNG newsletter. The newsletter will provide you with important information
2:42 PM
01/08/2013

Appendix O2
Open House Comment Form

GOLDBORO LNG

Open House date: _____

Name: _____

Tel. #: _____

Email: _____

Address: _____

_____

_____

Please share your comments:

Appendix O3
Open House Panels

WELCOME

Purpose of Open House

- To provide an update on Goldboro LNG
- To provide an update on the planning process
- To present draft findings of the environmental assessment
- To hear about your issues and concerns
- To outline future opportunities for involvement

Project proponent

Pieridae Energy Canada, a Canadian energy infrastructure development company.

Project Team

Alfred Sorensen, President & CEO
Thom Dawson, Executive VP & COO
David Shipway, Executive VP Commercial Development
Justine Davis, VP Business Management
Rita Theil, Director, Corporate Finance
Mark Brown, Director, Project Development
Thomas Ciz, External Legal Counsel
Bonnie Sheppard, Office Manager/Executive Assistant

CONSULTATION & ENGAGEMENT

Consultation & Engagement Program

- Project website: GoldboroLNG.com
- Public meetings, workshops
- Newsletter (Spring 2013)
- Stakeholder group meetings
- Review of draft and final documents
- Stakeholder Contact List
- Public Notices: newspaper advertisements, mail-outs
- Public Opinion Research
- Community Liaison Committee
- Engagement of First Nations communities

Next Opportunity

- Public review period for Environmental Assessment Report (48 days)

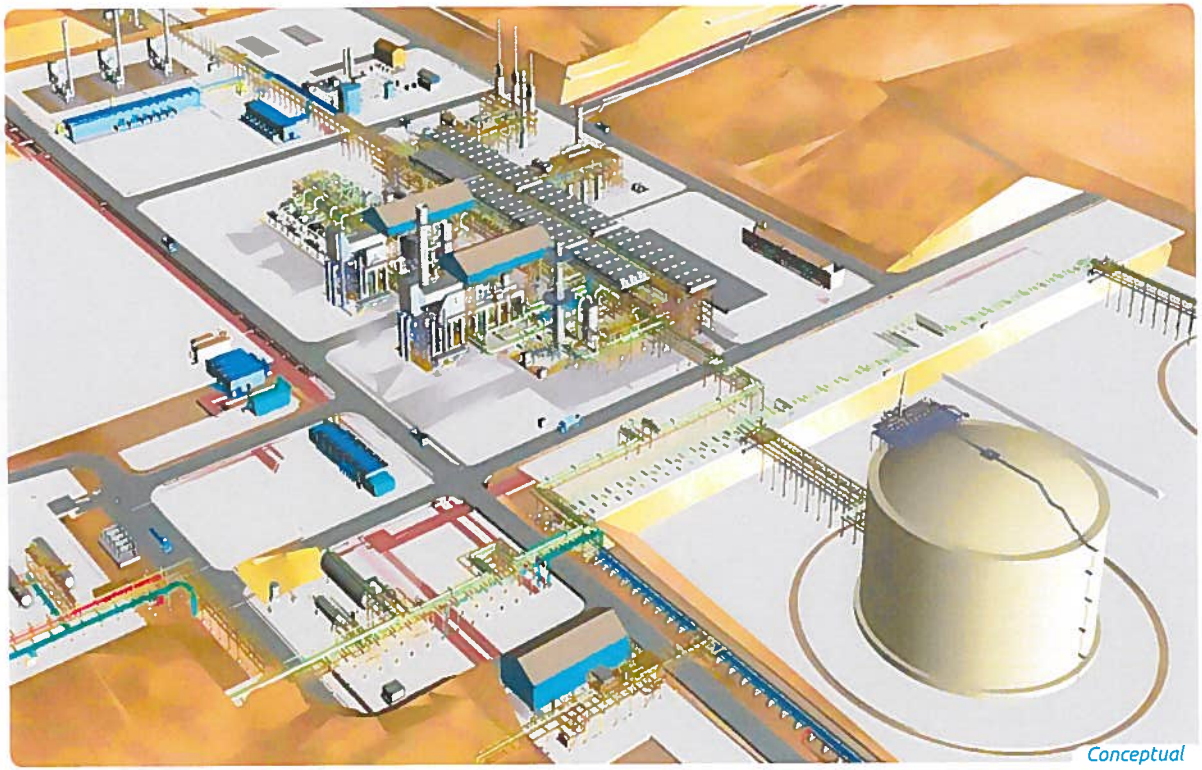
PROJECT OVERVIEW

Goldboro LNG will include:

- Natural gas liquefaction plant
- Storage and export facilities
- Marine Jetty (2 loading berths)
- 180 MW power plant

Send-out Capacity:	Up to 10 million tonnes/year
LNG Carrier Capacity:	145,000 - 263,000 m^3
Storage Tanks:	3 x 230,000 m^3
Shipments Per Month:	7 - 13
Commercial Operations Begin:	Late 2019 – Early 2020
Capital Expenditures:	~$5 - $10 billion CAD

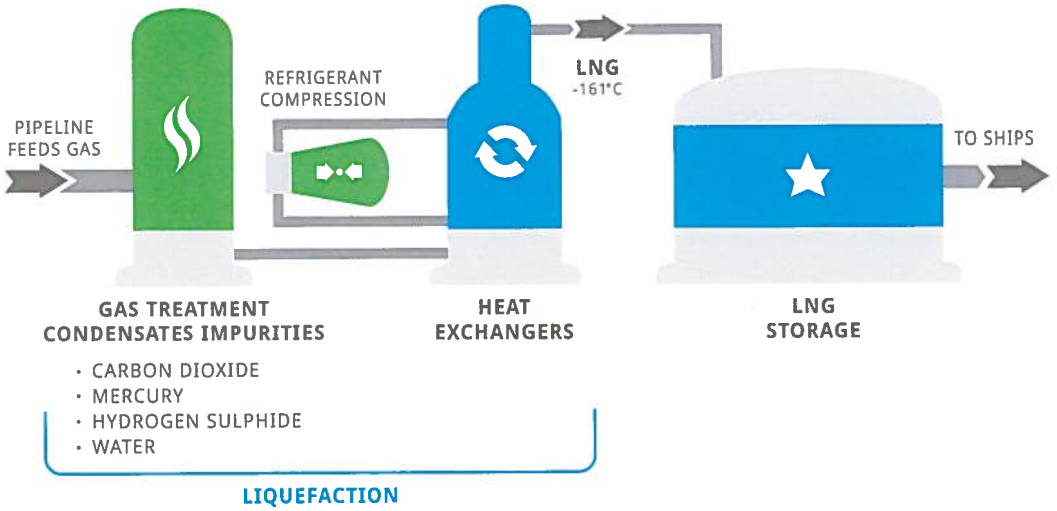
TYPICAL LNG LIQUEFACTION PLANT



Conceptual

WHAT IS LNG?

- LNG is simply natural gas (methane) turned into liquid. This is achieved by cooling it to -255 F (-160°C)
- The reduction in volume (600 times smaller) enables transportation by ships where pipelines would be impractical
- Bulk LNG has been generated, transported and used throughout the world for over 50 years
- Currently about 120 large scale LNG export/import terminals worldwide
- Outstanding industry safety record



LNG SAFETY

GOLDBORO LNG

Plant Safety

- Plants are designed, constructed and operated to a comprehensive set of international standards, codes & regulations that specifically address LNG plant safety
- Plants incorporate multiple layers of protection that:
  - Minimise the risk of dangerous material leaks
  - Safely contain any leaks that might occur
  - Minimise the risk of fires or explosions
  - Ensure safe separation of staff and public from potential hazards
  - Provide full containment storage for the produced LNG

Shipping Safety

- Criteria for the safe operation of LNG tankers is based on considerations presented by national and international marine and industry organizations including Transport Canada, the Canadian Coast Guard, Atlantic Pilotage Authority and the Society of International Gas Tanker and Terminal Operators (SIGGTO)
- The LNG shipping industry has a proactive safety approach and excellent safety record
- Goldboro LNG will adhere to best practices in both the on-shore and marine environments
- Safety and security of the ship is paramount at all times, both in transit and at the berth
- An exclusion zone of 500 metres has been assumed for Goldboro LNG

LNG STORAGE TANKS

- LNG stored in 9% Nickel steel inner tank
- Outer concrete or carbon steel roof contains vapor
- Concrete outer shell designed to contain LNG in the unlikely event of the inner shell leak
- Full containment tanks proposed for Goldboro is best available technology

LNG LOADING

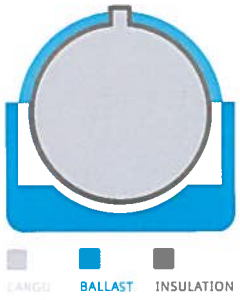
- LNG is transferred from the terminal's storage tanks to ships using loading arms
- Loading arms are equipped with position monitoring systems which sense movement of the ship
- If the ships movement exceeds safe limits, the flow of LNG is stopped
- If excessive ship movement continues, the loading arm separates from the ship
- Each load takes approximately 24 hours

LNG SHIPPING

- Double-hulled ships
- LNG is stored in a special containment system within the inner hull
- Kept at atmospheric pressure at -256°F
- Three vessel types:
  - Spherical (Moss)
  - Membrane
  - Prismatic
- Well over 39,000 safe voyages
- Goldboro LNG anticipates 7-13 shipments per month

VESSEL DIMENSIONS

	125,000 M³ MOSS TYPE	STANDARD SIZE 145,000 M³ MEMBRANE	200,000 M³ MEMBRANE	Q MAX 250,000 M³ MEMBRANE
NUMBER OF CARGO TANKS	4	4	4	4
LENGTH OVERALL	285	289	313	345
BEAM, M³	44	44	50	54
LOADED DRAFT, M³	11	11	12	12
BALLAST DRAFT, M³	10	9.7	9.9	10.3
RATED DEADWEIGHT, TONNES	69,000	72,000	100,000	120,000



REPRESENTATIVE CROSS SECTION OF SPHERICAL TANK CONSTRUCTION

REPRESENTATIVE CROSS SECTION OF MEMBRANE CONSTRUCTION

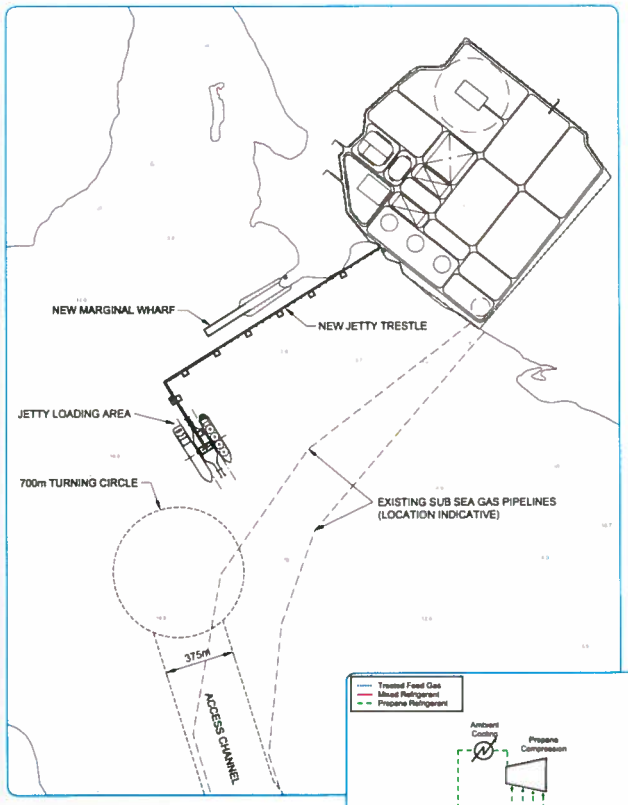
SUPPLY AND MARKET

Goldboro LNG will connect the expanding supply of natural gas in both Canada and the United States with increasing global demand, including areas of Europe and Asia.

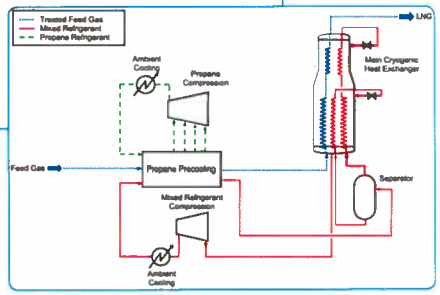
SUPPLY

MARKET

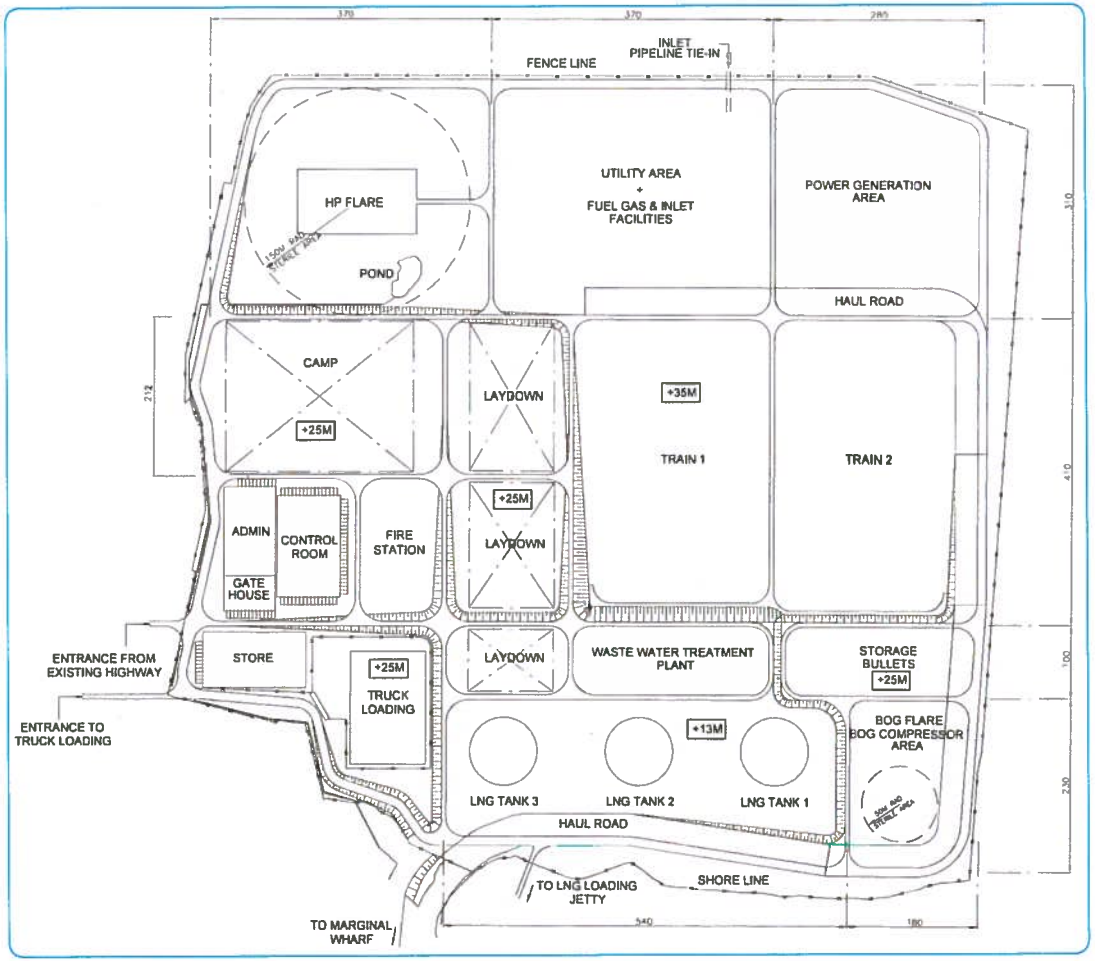
PRELIMINARY DETAIL DRAWINGS - OVERVIEW AND LNG FACILITY



Overall Site Layout



Generic Liquefaction Schematic



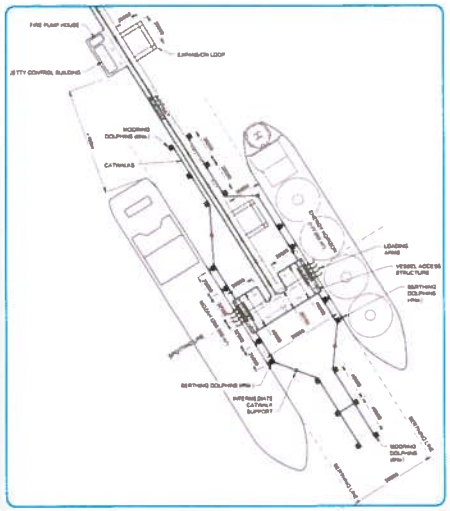
LNG Facility Layout

CBI

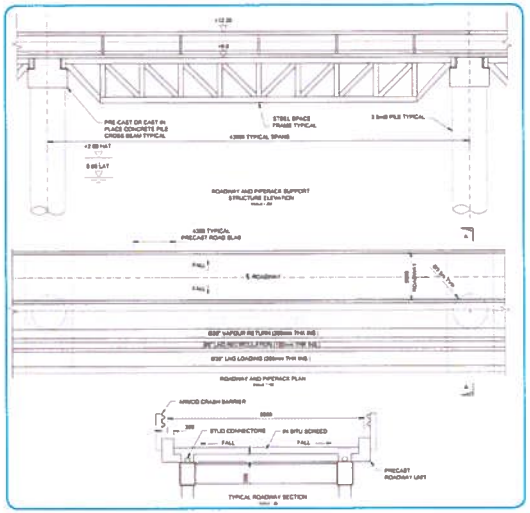
Royal HaskoningDHV
Enhancing Society Together

PRELIMINARY DETAIL DRAWINGS – JETTY AND MARGINAL WHARF

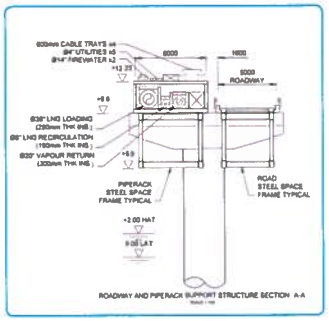
GOLDBORO LNG



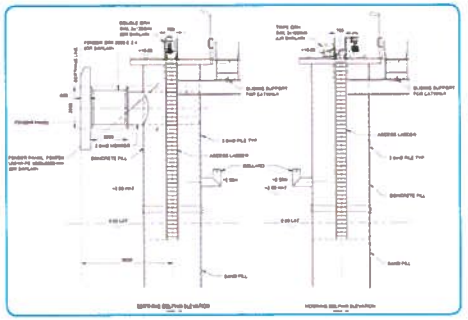
Jetty Head



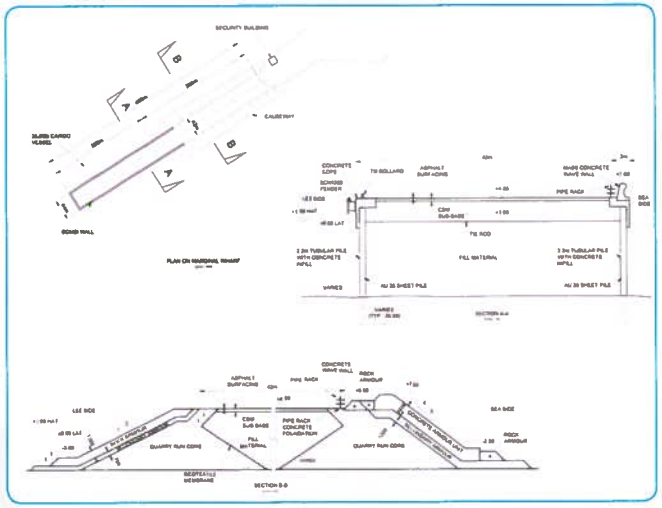
Trestle Profile



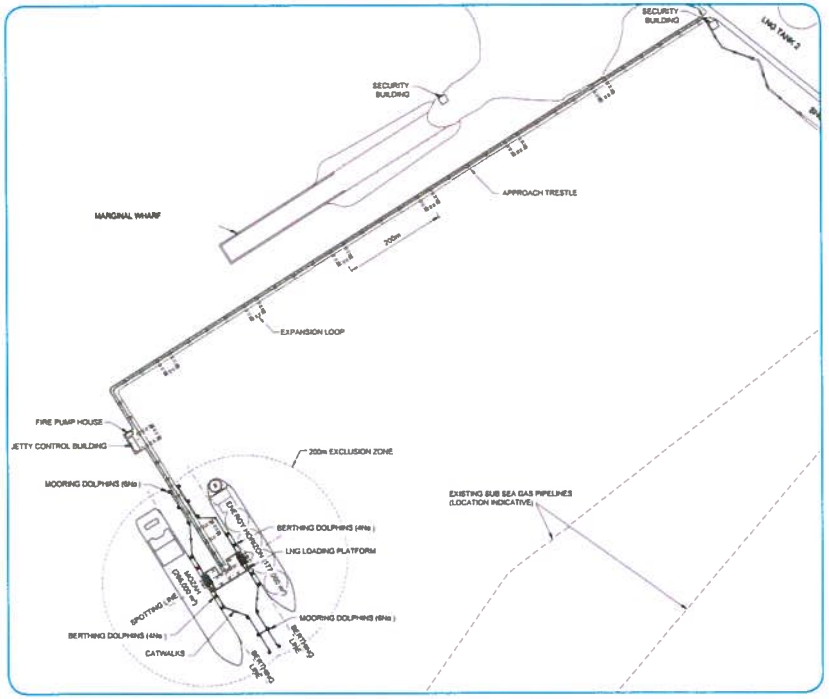
Trestle Cross-Section



Berthing and Mooring Dolphins



Marginal Wharf Cross-Sections



Jetty and Marginal Wharf Components

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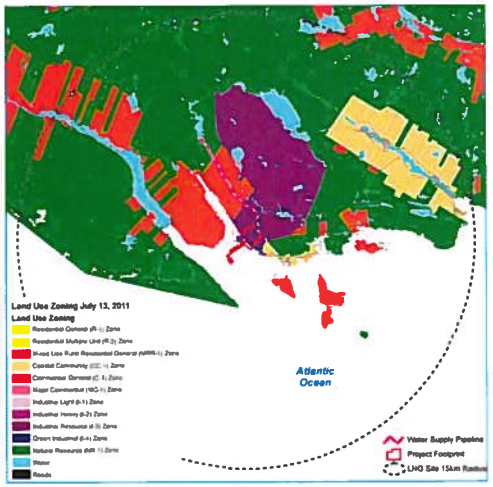
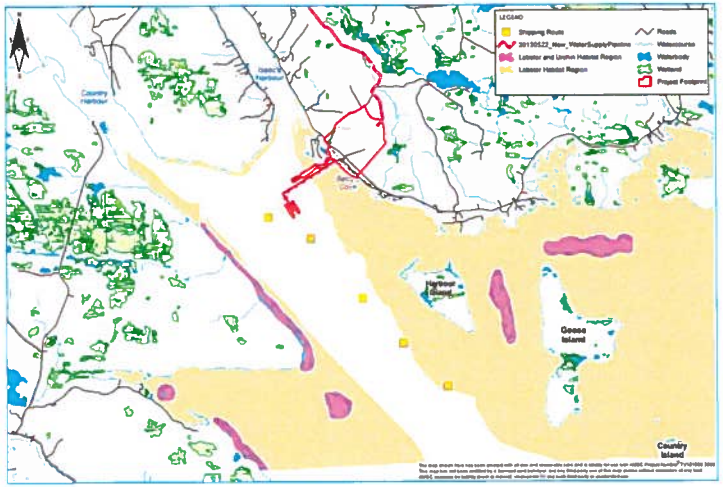
EXISTING ENVIRONMENT



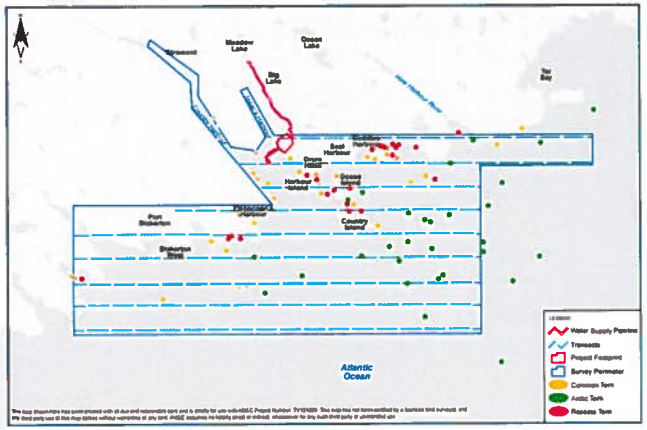
Land Use Zoning

Freshwater Fish Habitat



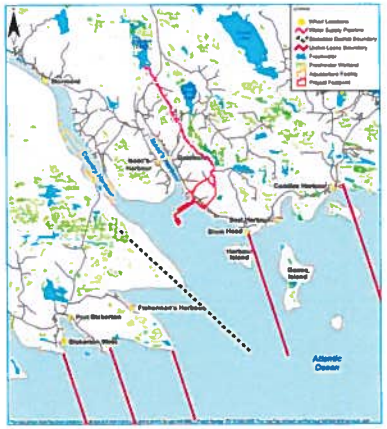
Fish Habitat of Stormont Bay

Heritage Resources



Roseate Tern Foraging Survey

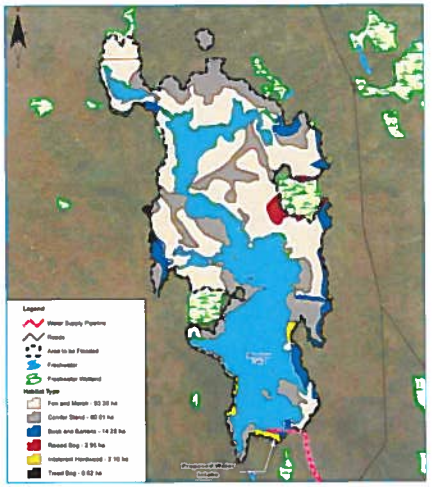
Marine Fish Habitat



Fishing Areas and Aquaculture

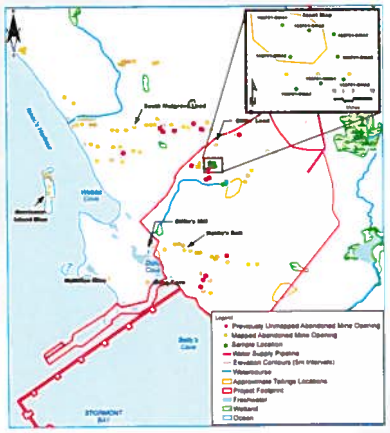
EXISTING ENVIRONMENT

Terrestrial Habitat At LNG Facility



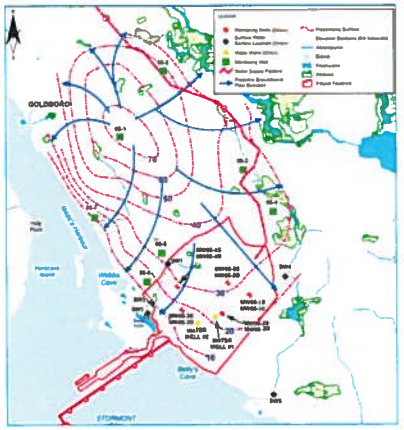
Meadow Lake Habitat

Moose Survey



Abandoned Mine Workings

Sediment and Soil Samples



Groundwater Samples

Wetlands At LNG Facility

ENVIRONMENTAL ASSESSMENT

GOLDBORO LNG

Key Elements of Provincial EA Process (Class II):

- Project registration
- Draft and final terms of reference (TOR)
- Environmental Assessment
    - Project Description (Key Components, Ins-Outs)
    - Environmental management
    - Valued Ecosystem Component (VEC) interactions
    - Effects evaluation
    - Mitigation & monitoring commitments
    - Public consultation
      (communities, stakeholders, agencies)
    - Engagement of First Nations communities
- Environmental Assessment Board review and recommendations
- Minister's decision

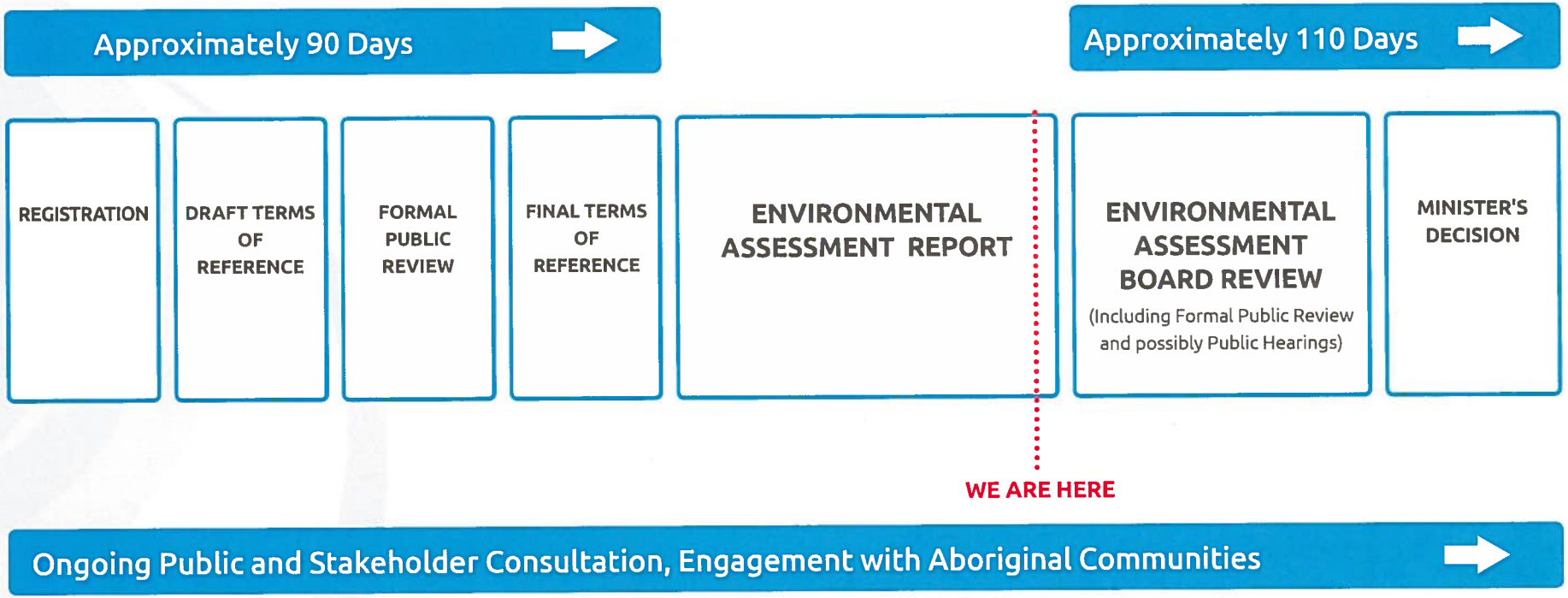
VALUED ENVIRONMENTAL COMPONENTS:

- Geology, Soil Quality
- Groundwater – Quality and Quantity
- Surface Water (Quality, Quantity)
- Air Quality and Climate Change
- Noise, Lighting
- Flora, Fauna and Terrestrial Habitat
- Wetlands
- Species At Risk
- Freshwater Aquatic Species and Habitat
- Marine Species and Habitat
- Agriculture
- Forestry
- Fisheries, Aquaculture and Harvesting
- Socio-Economic Conditions
    - Economic Conditions
    - Population
    - Property Values
    - Employment, Tourism
- Human Health and Safety
- Land Use – Existing and Planned
- Road Transportation
- Recreational Opportunities and Aesthetics
- Aboriginal Use of Land and Resources
- Archaeological Resources

NOVA SCOTIA ENVIRONMENTAL ASSESSMENT PROCESS

GOLDBORO LNG

Steps Required During an Environmental Assessment - Class II (Simplified)



MITIGATION & MONITORING

GOLDBORO LNG

Mitigation/Contingency Plans:

- Environmental Management Plan
- Environmental Protection Plans (General and Site Specific)
- Erosion and Sedimentation Control Plan
- Contingency Plan (fires/ other emergencies and discharge, emissions, escapes, leaks or spills)
- Health and Safety Plans
- Wetland Compensation Plan
- Fish Habitat Compensation Plan (if applicable)
- Contaminated Sites Remedial Action Plan / Risk Management Plan (mine tailings)
- Lighting Plan

Project/Site Specific Monitoring:

- Air Emissions Management Plan (Incl. Greenhouse Gas)
- Air Monitoring Program
  - Operational emissions
  - Meteorological data
  - Air quality dispersion
- Sufacewater monitoring
- Environmental Effects Monitoring
- Noise Monitoring Program
- Well Survey

Local Economic and Community Benefits Planning:

- Local Employment Strategy
- Local Supply and Procurement Strategy
- Equal Opportunities Employment Strategy
- Education and Training Strategy

ENVIRONMENTAL MANAGEMENT FEATURES

GOLDBORO LNG

Stormwater Management
- On-site storm water collection and retention pond
- Oil/water separators

Waste Water Management
- Waste water collection System
- Waste water treatment facility
- Controlled outlet structures
- Effluent quality monitoring point
- Shut down mechanism (spill containment)

Air Quality Controls
- Emergency pressure valves
- Flare systems to incinerate fugitive gaseous emissions
- Flares designed to produce minimal smoke
- High efficiency (98%), low noise flare tip
- Flare, vent, and drain systems are segregated in case of individual failure
- Flare gas metering
- Flare gas monitoring point
- SCR Post Engine Technology (to control NOx emissions for marine diesel engines)

Greenhouse Gas Emissions Management
- High energy conversion efficiency technology (for power plant)
- Computerized combustion controls
- Waste heat recovery units for process or space heating

Noise Abatement
- Low noise equipment
- Mufflers at high noise machinery
- Housing of equipment in enclosures with insulation (combined with winterisation)

Hazardous Waste
- Designated storage for hazardous materials

Health and Safety / Emergency Response
- Fire and gas detection and protection equipment
- Process control and emergency shutdown equipment
- Field telephones, general alarm equipment
- Emergency escape lighting
- On-site Emergency Response Unit (equipped / trained for fires, spills, and hazardous materials)

Uninterrupted Power Supply
- Emergency power system
- Automatic power transfer to essential services

Spill Prevention / Response
- Motion sensors in LNG loading arms
- Automated disconnection / shut off loading mechanism
- Emergency valve shutdown in case of power outages
- Sectionalised storage of gas and liquid inventories (to minimize losses)
- LNG spill containment wall
- Secondary containment for all on-site fuel storage /filling areas

ENVIRONMENTAL EFFECTS ASSESSMENT: EMPLOYMENT

GOLDBORO LNG

Employment Opportunities By Works

Subcontractors will be utilised for specialty works or where there is a major cost and/or schedule benefit, e.g.:

- Site Preparation – Including clearing and grubbing, bulk earthworks and roads and drainage
- Jetty and MOF installation
- Civil Works – Including piling (if any), excavation and backfill, foundation works, grouting and LNG tank concrete works
- Module Fabrication works – Pre-Assembled Unit (PAU), Pre-Assembled Rack (PAR) and buildings
- Buildings – Including supply and construction of warehouses, administration buildings, etc
- Insulation and Coatings – Including fireproofing, pipe and equipment insulation
- Electrical & Instrumentation – Including cable installation, instrument installation, loop checking and pre-commissioning works
- Module shipment, Heavy haul and Transport

Employment By Construction Stage (Approximate)

Employment opportunities will be greatest during construction and are estimated to involve:

- 2015 Mobilisation, Site Preparation, Early Civil Works - 550 employees
- 2016 Civil Works (Foundations, Buildings, Underground Services) - 2800 employees
- 2017 Module Installation, Hook-Up, Mechanical, Electrical & Instrumentation (E&I) - 3500 employees
- 2018 Module Hook-Up, E&I, Commissioning - 2700 employees
- 2019 Commissioning, Hand-Over, Demobilisation - 400 employees

Effects Assessment

- Effects expected to be beneficial for the local, regional and provincial economies
- Labour force requirements may cause shortages in some services/ trades areas

Management & Maximizing Benefits

- Procurement policy that favours local suppliers of goods
- Consultation with and on-going contacts with business community, labour unions, Chamber of Commerce, Economic Development Offices
- Provision of training support; coordination with education/ training centres

ENVIRONMENTAL EFFECTS ASSESSMENT: AIR QUALITY

GOLDBORO LNG

Emissions Inventory

- Main sources: combustion of natural gas turbines at power plant and compressors
- LNG tanker diesel engines
- Key air parameters: CO, CO_2, NO, NO_x, SO_2, VOCs, dust
- Scenarios: normal operation and upset conditions

Effects Assessment

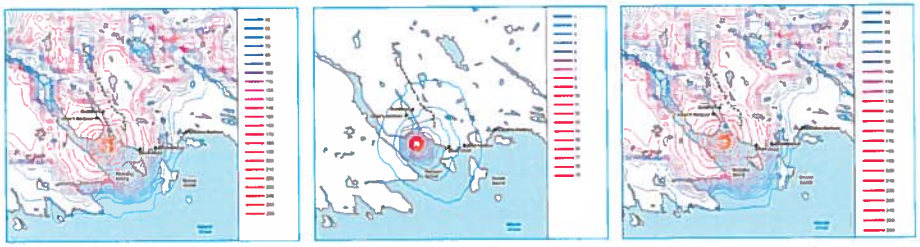
- Computer modeling of air concentrations (ground level)
- Comparison against applicable air quality standards and guidelines
- Results: effects within Nova Scotia guidelines for all parameters
- Upset conditions: some parameters (SO_2, NO_2) close to guideline thresholds
- Dust is key issue during construction
- GHG emissions (CO_2) is key issue during operation (no applicable standards)

Management & Mitigation

- Use of dust suppressants during construction
- Exclusive use of clean natural gas in all on-shore components
- LNG Tankers to run low emissions auxiliary diesel engines during time at jetty
- Marine diesel engines used in port to meet strict international standards for NO_2 and SO_2 emissions (new standards in 2016; 80% reduction in NO_x)
- On-going air quality monitoring
- GHG management plan (long-term reduction commitment)

NO_2 Concentrations

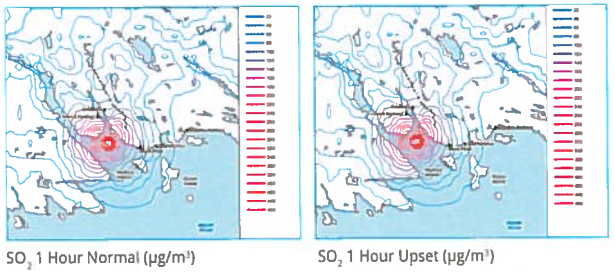
(Nova Scotia Objectives: 1hr-100 µg/m³ / Annual-400 µg/m³)



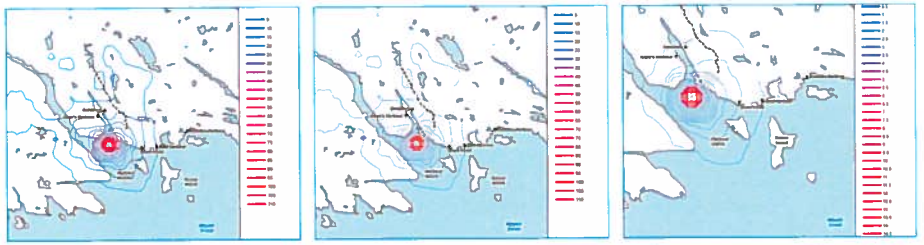
NO_2 1 Hour Normal (µg/m³) | NO_2 1 Hour Upset (µg/m³) | NO_2 Annual Normal (µg/m³)

SO_2 Concentrations (Micrograms per cubic metre)

(Nova Scotia Objectives: 1hr-900 µg/m³ / 24hr-300 µg/m³ / Annual-60 µg/m³)



SO_2 1 Hour Normal (µg/m³) | SO_2 1 Hour Upset (µg/m³)



SO_2 24 Hour Normal (µg/m³) | SO_2 24 Hour Upset (µg/m³) | SO^2 Annual Normal (µg/m³)

ENVIRONMENTAL EFFECTS ASSESSMENT: TRANSPORTATION

GOLDBORO LNG

Construction Related Traffic

- 200 commuters daily, during peak hours
- Five semi-trailers deliver material to site during peak hours
- Majority of workers at camp are transported by bus (probably on weekends) about every 4 weeks
- 160 truck trips per day (for a few months early in construction), hauling spoil to nearby site (no trips during peak hours)

Effects Assessment

- Temporary moderate increases in local traffic volumes (Construction Phase)
- Road performance remains satisfactory within all scenarios
- Overall adverse effect not significant
- Increased project-related tax revenues will provide for improved road maintenance

Management & Mitigation

- Work camp adjacent to construction site
- Project-specific bus services and car pooling
- Scheduling of work activities outside of peak hours
- Road upgrades (by municipality)
- Relocation of Hwy 316 around LNG facility (NSTIR)

Estimated 2017 Two-Way Design Hourly Volumes (DHVs) during Construction Phase

Location	Background 2017 DHVs		Construction Phase Vehicle Trips		Estimated 2017 DHVs with Construction Trips	
	AM	PM	AM	PM	AM	PM
Trunk 7 – 1.0 km South of Highway 104	390	480	65	65	455	545
Trunk 7 – 1.0 km South of Salt Springs	235	240	65	65	300	305
Route 276 – Halfway Trunk 7 and Route 316	60	65	65	65	125	130
Route 316 – 1.0 km South of Route 276	55	70	85	85	140	155
Route 316 – 1.5 km north of Isaac's Harbour	40	70	105	105	145	175
Route 316 – Goldboro Area north of the Site	40	70	145	145	185	215
Route 316 – South of the Site	40	70	60	60	100	130

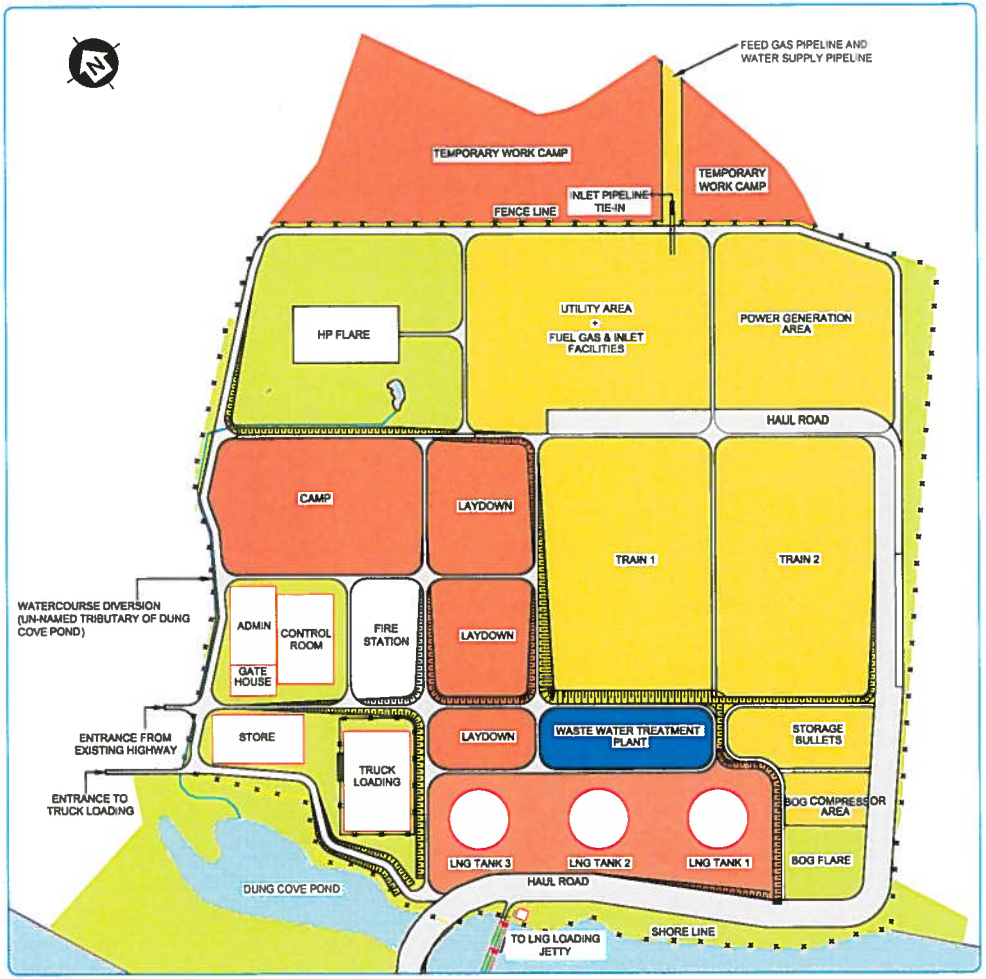
Road Realignment

PROJECT OVERVIEW

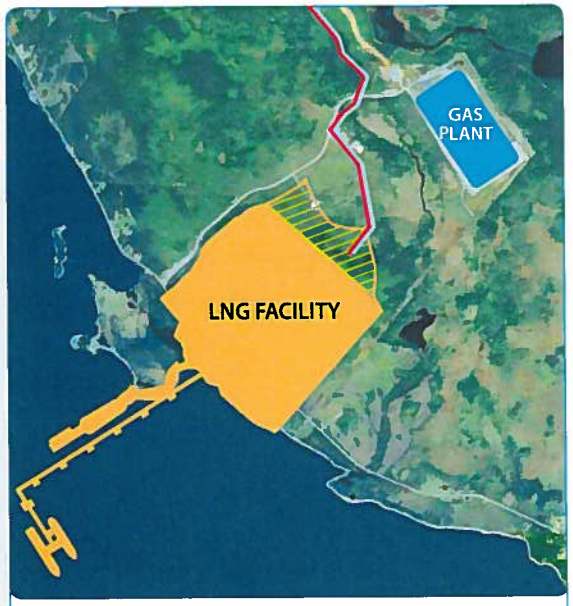
WATER SUPPLY PIPELINE

TEMPORARY WORK CAMP

PROPOSED M&NP PIPELINE TIE-IN UTILISING EXISTING PIPELINE CORRIDOR



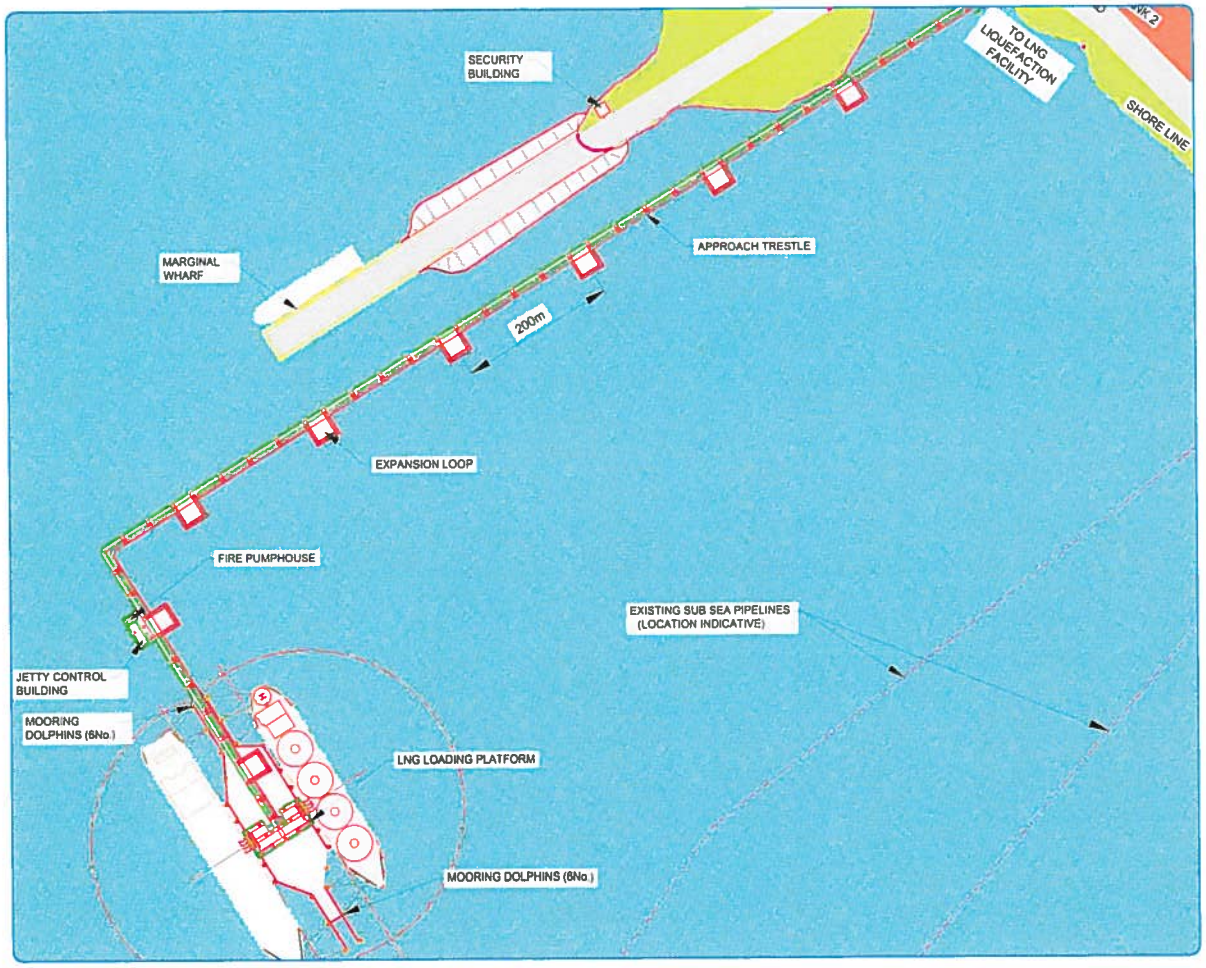
PROJECT OVERVIEW



WATER SUPPLY PIPELINE

TEMPORARY WORK CAMP

PROPOSED M&NP PIPELINE TIE-IN UTILISING EXISTING PIPELINE CORRIDOR



GOLDBORO LNG PARTNERS

GOLDBORO LNG

GOLDBORO LNG

- **NATURAL GAS PRODUCERS**
  - US PRODUCERS
  - ONSHORE NOVA SCOTIA PRODUCERS
  - ONSHORE NEW BRUNSWICK PRODUCERS
  - OFFSHORE NOVA SCOTIA PRODUCERS
- **NATURAL GAS PIPELINE**
  - MARITIMES AND NORTHEAST PIPELINE
  - US PIPELINES
- **SHIPPING**
  - LNG SHIP BUILDERS
  - LNG TANKER OPERATORS
  - TUG AND SERVICE OPERATORS
- **LNG END USERS**
  - EUROPEAN BUYERS
    - E·ON
  - SOUTH AMERICAN BUYERS
  - SOUTH ASIA BUYERS

EFFECTS ASSESSMENT: OTHER KEY COMPONENTS

GOLDBORO LNG

	KEY EFFECTS	MITIGATION	RESIDUAL EFFECTS
GEOLOGY, SOIL QUALITY	• Potential for disturbance of contaminated soils (mine tailings)	• Soil survey and (risk) assessment • Tailings management plan • Isolation and safe disposal • Monitoring	• Minimal emissions (short term and localized) • Emissions within guidelines
GROUND WATER	• Potential water quality impairment • Potential water quantity reduction	• Minimize blasting (use ripper) • Spill prevention measures • Avoid / safely manage mine tailings • Use lake water for water supply • Pre-blast well survey	• Minimal impact on local groundwater
SURFACE WATER	• Potential water quality impairment • Potential water quantity reduction	• Stormwater management plan • Detention pond • Waste water treatment plant • Controlled outlet structure • Effluent monitoring	• Minor emissions (short term and localized) • Emissions within guidelines
NOISE	• Increased noise levels	• Scheduling of noise intensive work • Sound abatement measures and equipment • Noise monitoring	• Construction noise (short term and localized) • Off-site noise level within guidelines (may require additional abatement measures)
FLORA, FAUNA, TERRESTRIAL HABITAT, SPECIES AT RISK (SAR)	• Clearing of ~150 ha of shrubs and regenerating forest (plus minor coastal habitat) • birds and wildlife (no SAR)	• Use of "brownfield site" • Minimize footprint • Avoid sensitive habitat • Contribution to moose recovery program • Lighting plan to consider birds	• Minor loss of common habitat • No significant residual effects on moose and migratory birds
WETLANDS	• Combined loss of 2.5 ha in nine small wetlands (none of "special significance")	• Minimize footprint • Avoid wetland habitat where possible • Wetland Compensation Plan (all functions fully re-established)	• No residual effects following compensation
FRESHWATER AQUATIC HABITAT AND SPECIES (INCL. SPECIES AT RISK)	• Relocation of one small water course • Disruption of fish habitat (no Species at Risk)	• Use of "brownfield site"(mine tailings) • Avoid water bodies where possible • Use "natural" channel design in diverted watercourse, plus compensation (if necessary) • Augment flow maintenance with clean stormwater management • Scheduling of in-water works	• No residual effects following compensation
MARINE SPECIES AND HABITAT (INCL. SPECIES AT RISK)	• Loss of marine fish habitat (rock and kelp) • Potential for water quality impairment	• Minimize jetty footprint with mono-piles • Minimize seabed disturbance during construction • Fish habitat compensation plan	• Localized loss (limited to marginal wharf)
FISHERIES, AQUACULTURE AND HARVESTING	• Small reduction in local shellfish area (2.4 ha) • Minor limitations on access (jetty and wharf) • Temporary navigation restrictions (vessel manoeuvring)	• Fish habitat compensation plan • Communication of vessel arrivals and departures • Compensation in case of gear loss	• Access limitation localized and partially temporary • Productivity fully compensated • Residual effects not significant
RECREATIONAL OPPORTUNITIES AND AESTHETICS	• Change of visual character	• Facility to be developed in designated industrial park • Visitor information centre at site (construction/ operation phases) • Increased tax revenues expected to enhance recreation opportunities / infrastructure	• Visual change mostly localized; • Loss of attractiveness compensated by infrastructure improvements
HUMAN HEALTH AND SAFETY	• **Effects related to emissions and discharges** • **Effects related to accidents and malfunctions**	• Compliance with all applicable health and safety standards • Comprehensive hazard assessment in design • Compliance with all applicable health and safety standards • Health and Safety Plans • Comprehensive Emergency Response Plans	• Project to meet standards and guidelines • Minimal risks for accidental events
ABORIGINAL USE OF LAND AND RESOURCES	• Potential to impact traditional use of natural resources	• Mitigation related to all natural environment components • On-going engagement and dialogue with Mi'kmaq communities • Commitment to implement benefits agreement	• Economic opportunities expected to be beneficial for communities

PROJECT SCHEDULE

GOLDBORO LNG

Timeline

Preliminary

2012

- **INITIAL CONSULTATION WITH STAKEHOLDERS**
- **COMMENCEMENT OF THE ENVIRONMENTAL ASSESSMENT**
  - PROVINCE OF NOVA SCOTIA
- **CONSULTATION AND ENGAGEMENT PROCESS**
  - ENGAGEMENT OF FIRST NATIONS COMMUNITIES
  - MEETINGS WITH LOCAL COMMUNITIES
  - MEETINGS WITH INTERESTED STAKEHOLDERS
  - AGENCY CONSULTATION

2013

- **FRONT END ENGINEERING AND DESIGN COMMENCEMENT**
- **COMPLETION OF ENVIRONMENTAL ASSESSMENT**
- **PERMITS AND APPROVALS**
- **CONSULTATION AND ENGAGEMENT (CONT'D)**

2014

- **COMPLETION OF FRONT END ENGINEERING AND DESIGN**
- **PERMITS AND APPROVALS (CONT'D)**
- **CONSULTATION AND ENGAGEMENT (CONT'D)**

2015

- **FINAL INVESTMENT DECISION FOR THE PROJECT**
- **CONSULTATION AND ENGAGEMENT (CONT'D)**
- **COMMENCEMENT OF CONSTRUCTION**

2019

- **TESTING (3-4 MONTHS)**
- **COMMENCEMENT OF OPERATIONS**

PROJECT BENEFITS

Goldboro LNG will create significant direct and indirect economic benefits for the local community, province and region, and the natural gas industry in Eastern Canada and the United States.

EMPLOYMENT OPPORTUNITIES

Accounting
Administrative Assistant
Boiler Maker
Carpenter
Cement Worker
Clerical
DCS Technician
Electrician
Engineer (Various)
General Administrative
Heavy Equipment Operator
HVAC
Instrument Technician
Insulator
Iron Worker
Jetty Operators
Labourer
Millwright
Operations Engineer
Pipefitter
Plant Operators
Plumber
Quality Assurance
Safety Representative
Security Guard
Sheet Metal Worker
Teamster
Welder

REGIONAL ECONOMIC BENEFITS

- Jobs and training in community and region
- Use of local personnel, goods and services
- Diversification of local economy
- Capacity building and skills training
- Community initiatives such as education, arts and culture projects
- Increased municipal and provincial tax revenue

LOCAL EMPLOYMENT

- Construction phase: up to 3,500 jobs at Goldboro site
- Ongoing Operation and maintenance: up to 200 positions
- Opportunities for sub-contracts, manufacture and supply of equipment

REGIONAL ENERGY RESOURCE DEVELOPMENT

- Supplemental export market for natural gas
- Additional government royalty revenue from increased gas sales
- Major boost to Nova Scotia and regional economy

Appendix O4
Project Fact Sheet

GOLDBORO LNG

The Goldboro Liquefied Natural Gas (LNG) project will be the east coast of Canada's LNG export facility. North American natural gas supplies will be transported to Goldboro, Nova Scotia using existing pipelines and exported by ship to international markets.

PROJECT OVERVIEW

- A project of Pieridae Energy Canada
- Consists of a natural gas liquefaction plant and facilities for the storage and export of LNG, including a marine jetty for loading
- Gas supply feed via the existing Maritimes & Northeast Pipeline directly adjacent to the project

SEND-OUT CAPACITY:	Up to 10 million tonnes/year
LNG CARRIER CAPACITY:	145,000 - 250,000 m^3
STORAGE TANKS:	3 x 230,000 m^3
SHIPMENTS PER MONTH:	7 - 13
COMMERCIAL OPERATIONS BEGIN:	Late 2019 - Early 2020
CAPITAL EXPENDITURES:	~$5 - $10 billion CAD

LNG SUPPLY & MARKET

Goldboro LNG will connect the expanding supply of natural gas in both Canada and the United States with the increasing global demand.

Canada is the world's third largest producer of natural gas with average annual production of 6.4 trillion cubic feet (tcf). North America has over a century of natural gas supply at today's consumption levels. This abundant supply will ensure that natural gas continues to be a capable, reliable, secure, safe, and environmentally acceptable fuel. (Source: Canadian Association of Petroleum Producers)

With our location and proximity to existing gas pipeline infrastructure, Goldboro LNG is well positioned as the gateway to the global markets for North American LNG.

LOCATION ADVANTAGES

Goldboro LNG will be the east coast of Canada and the United States' closest mainland LNG export terminal to Europe and India. Its location, Goldboro, Nova Scotia, provides substantial advantages for transporting LNG to key markets.

DAYS SHIPPING

	LAKE CHARLES	QATAR	GOLDBORO
ZEEBRUGGE	10.9	14.5	**6.5**
ISLE OF GRAIN	10.8	14.5	**6.5**
FOS-SUR-MER	12.0	10.5	**7.6**
MONTOIR	10.4	14.1	**6.2**
BILBOA	10.7	13.5	**6.0**
BARCELONA	11.6	10.5	**7.5**
LA SPEZIA	12.5	10.2	**8.3**
MANGALORE	22.0	4.0	**18.0**

902.492.4044

1718 Argyle Street, Suite 730 | Halifax, NS | B3J 3N6

GOLDBORO LNG

2012

INITIAL CONSULTATION WITH STAKEHOLDERS

COMMENCEMENT OF THE ENVIRONMENTAL ASSESSMENT
PROVINCE OF NOVA SCOTIA

CONSULTATION AND ENGAGEMENT PROCESS
ENGAGEMENT OF FIRST NATIONS COMMUNITIES
MEETINGS WITH LOCAL COMMUNITIES
MEETINGS WITH INTERESTED STAKEHOLDERS
AGENCY CONSULTATION

2013

PRE FRONT END ENGINEERING AND DESIGN COMPLETION

COMPLETION OF ENVIRONMENTAL ASSESSMENT

PERMITS AND APPROVALS

CONSULTATION AND ENGAGEMENT (CONT'D)

2014

COMMENCEMENT OF FRONT END ENGINEERING AND DESIGN

PERMITS AND APPROVALS (CONT'D)

CONSULTATION AND ENGAGEMENT (CONT'D)

2015

FINAL INVESTMENT DECISION FOR THE PROJECT

CONSULTATION AND ENGAGEMENT (CONT'D)

COMMENCEMENT OF CONSTRUCTION

2019

TESTING (3-4 MONTHS)

COMMENCEMENT OF OPERATIONS

PROJECT BENEFITS

Goldboro LNG will create significant direct and indirect economic benefits for the local community, province and region, and the natural gas industry in Eastern Canada and the United States.

REGIONAL ECONOMIC BENEFITS

- Jobs and training in community and region
- Use of local personnel, goods and services
- Diversification of local economy
- Capacity building and skills training
- Community initiatives such as education, arts and culture projects
- Increased municipal and provincial tax revenue

LOCAL EMPLOYMENT

- Construction phase: up to 3,500 jobs at Goldboro site
- Ongoing operation and maintenance: up to 200 positions
- Opportunities for sub-contracts, manufacture and supply of equipment

REGIONAL ENERGY RESOURCE BENEFITS

- Supplemental export market for natural gas
- Additional government royalty revenue from increased gas sales
- Major boost to Nova Scotia and regional economy

What is LNG?

Liquefied Natural Gas, also referred to as LNG, is natural gas cooled in the process known as liquefaction to minus 161 degrees centigrade. Cooling natural gas in this manner reduces its volume by 600 times, making it easier to store and transport to markets throughout the world.

Appendix O5
Project Public Notices

Goldboro LNG Open House

Pieridae Energy Canada invites you to an open house to learn about Goldboro LNG and developments of the environmental assessment and planning process.

The open house will provide attendees with the opportunity to talk to project representatives and have their questions answered.

DATE: **Thursday, March 7, 2013**

TIME: **3:00pm – 7:00pm**
A brief presentation will be given at 3:30pm and 6:00pm

LOCATION: **Goldboro Interpretive Centre**
12881 Highway 316
Goldboro, NS

The planning process for the new facility is just starting. Further opportunities for participation will be provided in the future.

For more information, visit:
www.GoldboroLNG.com
or call **902.492.4044.**

GOLDBORO LNG

Goldboro LNG Open House

Pieridae Energy Canada invites you to an open house to learn more about the Goldboro LNG export facility proposed for the Goldboro Industrial Park.

The open house will introduce the Goldboro LNG project and provide participants with the opportunity to talk to project representatives and have their questions answered.

DATE: **Thursday, December 13, 2012**

TIME: **3:00pm – 7:00pm**
A brief presentation will be given at 3:30pm and 6:00pm

LOCATION: **Goldboro Interpretive Centre**
12881 Highway 316
Goldboro, NS

The planning process for the new facility is just starting. Further opportunities for participation will be provided in the future. For more information visit **www.GoldboroLNG.com**; or contact Sean Lewis at **902-425-1860 ext.225**.

GOLDBORO LNG

Goldboro LNG Open House

Pieridae Energy Canada invites you to an open house to learn more about the Goldboro LNG export facility proposed for the Goldboro Industrial Park.

The open house will introduce the Goldboro LNG project and provide participants with the opportunity to talk to project representatives and have their questions answered.

DATE: **Tuesday, June 18, 2013**

TIME: **3:00pm – 7:00pm**
A brief presentation will be given at 3:30pm and 6:00pm

LOCATION: **Goldboro Interpretive Centre**
12881 Highway 316
Goldboro, NS

The planning process for the new facility is just starting. Further opportunities for participation will be provided in the future. For more information visit **www.GoldboroLNG.com**; or contact Sean Lewis at **902-425-1860 ext.225**.

GOLDBORO LNG

Appendix O6
Project Newsletter

GOLDBORO LNG

NEWSLETTER **SPRING 2013**

WELCOME!

Welcome to the first edition of the Goldboro LNG newsletter. The newsletter will provide you with important information about the project and key milestones. It will be published on a semi-annual basis, or when specific project developments warrant an additional issue.

ENVIRONMENTAL ASSESSMENT PROCESS UNDERWAY

On February 18, 2013, Pieridae submitted the Environmental Assessment (EA) Registration Document to Nova Scotia Environment (NSE). The Province reviewed the Registration Document and issued it, along with their Draft Terms of Reference on February 27, 2013, for public review. The Terms of Reference provide Pieridae with a framework for conducting the Goldboro LNG EA. The Province reviewed the comments received during this early consultation period and adjusted the Terms of Reference accordingly. The final Terms of Reference were issued on May 7, 2013, and can be viewed at: www.goldborolng.com or www.gov.ns.ca/nse/ea/goldboro-lng

We are currently reviewing and assessing all of the existing environmental data that is available for the Project area. Recent changes to our project description include moving the temporary work camp just north of the project footprint. As well, Meadow Lake is being included as a source for the fresh water supply. It is a great benefit to us that so much environmental information has been collected from previous project proposals. Nonetheless, there are data needs, some of which were addressed in 2012, and others which will need to be done in 2013 and before construction begins.

Habitat, wetland, plant, lichen and odonate (eg. dragonflies) surveys were carried out in September 2012 at the Goldboro LNG Project site. This fieldwork allowed the confirmation and delineation of wetlands in the project footprint. Several species of dragonflies and damselflies were also recorded, none of them rare.

Additional species of odonates are presumed to be present in the project area based on the habitat; this will be confirmed through follow-up field work in 2013. No rare lichens were found during the September 2012 field survey. The information collected will be used by the team to develop strategies to avoid and/or minimize adverse effects or to design a wetland compensation plan.

Further geotechnical work will be done in the project area to complement the work done by MapleLNG in 2007. This work will involve an extensive series of test pits that will be used to gather required data. The data will be issued in a comprehensive geotechnical report that will help to ensure structurally solid foundations of the proposed project infrastructure.

For more information on the Goldboro LNG Environmental Assessment visit:

www.GoldboroLNG.com

ABOUT GOLDBORO LNG

The Goldboro Liquefied Natural Gas (LNG) project will be the east coast of Canada's LNG export facility. North American natural gas supplies will be transported to Goldboro, Nova Scotia using the existing pipelines and exported by ship to international markets. A project of Pieridae Energy Canada, Goldboro LNG consists of a natural gas liquefaction plant and facilities for the storage and export of LNG.

GOLDBORO LNG SITE MAP

FIRST NATION ENGAGEMENT

There have been several meetings with key members of the First Nation community, including Kwilmu'kw Maw-klusuaqn, the Chiefs and Councils of the Paq'tnkek, Millbrook and Shubenacadie Bands. The purpose of the meetings was to start communication early in the planning process and to introduce the project concepts. Together we will explore opportunities for Mi'kmaq involvement in the project and learn about potential views and ideas from the First Nation communities.

Key elements of the environmental assessment as outlined in the Terms of Reference include:

- Project description
- Regulatory environment
- Need for and purpose of the project
- A description of alternatives to the project
- Other methods for carrying out the project
- Assessment methodology
- Description of the existing environment
- Adverse effects and environmental effects assessment
- Proposed mitigation
- Residual adverse effects and environmental effects
- Evaluation of the advantages and disadvantages to the environment
- Proposed compliance and effects
- Monitoring programs and plans
- Consultation and engagement programs
- Assessment summary and conclusion

For a complete Terms of Reference, go to www.goldborolng.com

OPEN HOUSES

Since announcing the Goldboro LNG project in October 2012, two well attended Open Houses were held at the Goldboro Interpretive Centre. The most recent Open House on March 7, 2013, focused on providing an update of the project description and recent Goldboro LNG activities. We shared details of the project's Environmental Assessment Registration document and the Draft Terms of Reference issued by the Province of Nova Scotia. As well, an outline of our planning process was provided to give the community a better understanding of the opportunities available and timelines involved with a project of this magnitude.

The next Goldboro LNG open house will be held on Tuesday, June 18, 2013, from 3pm to 7pm at the Goldboro Interpretive Centre, 12881 Highway 316, Goldboro, NS.

NEW OFFICE; NEW TEAM MEMBERS

Pieridae has recently opened an office at 1718 Argyle Street in Halifax. The project lead at the Halifax Office is Mark Brown, Director, Project Development. Mark has over 30 years of experience in the North American and International Energy Industry. He was involved in the development of the Canaport LNG facility in New Brunswick and the proposed development of the Maple LNG facility in Goldboro, Nova Scotia. Mark has been involved in several other natural gas developments in Atlantic Canada over the last 13 years.

Also working at the Halifax office is Bonnie Sheppard. Bonnie is the Office Manager and Executive Assistant. She has over 20 years of office experience in the Energy Industry. She was also involved in the proposed development of the MapleLNG facility. Additionally, Bonnie has played a supportive roll in several Oil & Gas construction projects in Asia, Europe, United States, and Canada.

COMMUNITY LIAISON COMMITTEE

Goldboro LNG aims to have a well-established and long-term relationship with members of the Municipality of the District of Guysborough. Goldboro LNG is establishing a Community Liaison Committee (CLC) to ensure community input and engagement on project activities.

It is very important that we receive input and ideas about Goldboro LNG from all interested persons. The CLC is a great way to infuse community values into the Project. Initially, the CLC will meet on an as needed basis with more regular meetings being established once construction begins.

Although the make-up of the CLC has not yet been finalized, it is suggested that the CLC will be comprised of:

- Proponent
- Councilor from District 7
- Member from Goldboro
- Member from Drum Head
- Member from Isaac's Harbor
- Member from Seal Harbour
- Representative of the African Nova Scotian Community
- Representative of the First Nations Community

If you are interested in being considered for a position on the Goldboro LNG CLC, please send a letter or an e-mail to the contact address provided at the end of this newsletter, by June 14. Please include your name, contact information and the area you would best represent on the Goldboro LNG CLC.

GOLDBORO LNG

GOLDBORO LNG DETAILS

Send-out capacity	Up to 10 million tonnes/year
LNG carrier capacity	145,000 - 263,000 m^3
Storage tanks	3 x 230,000 m^3
Shipments per month	7 - 13
Commercial operations begin	Early 2019
Capital expenditures	~$5 - $10 billion CAD

OVERVIEW LOCATION

PROJECT TIMELINE

2012
- **INITIAL CONSULTATION WITH STAKEHOLDERS**
- **COMMENCEMENT OF THE ENVIRONMENTAL ASSESSMENT**
  - PROVINCE OF NOVA SCOTIA
- **CONSULTATION AND ENGAGEMENT PROCESS**
  - ENGAGEMENT OF FIRST NATIONS COMMUNITIES
  - MEETINGS WITH LOCAL COMMUNITIES
  - MEETINGS WITH INTERESTED STAKEHOLDERS
  - AGENCY CONSULTATION

2013
- **PRE FRONT END ENGINEERING AND DESIGN COMPLETION**
- **COMPLETION OF ENVIRONMENTAL ASSESSMENT**
- **PERMITS AND APPROVALS**
- **CONSULTATION AND ENGAGEMENT (CONT'D)**

2014
- **COMMENCEMENT OF FRONT END ENGINEERING AND DESIGN**
- **PERMITS AND APPROVALS (CONT'D)**
- **CONSULTATION AND ENGAGEMENT (CONT'D)**

2015
- **FINAL INVESTMENT DECISION FOR THE PROJECT**
- **CONSULTATION AND ENGAGEMENT (CONT'D)**
- **COMMENCEMENT OF CONSTRUCTION**

2019
- **TESTING (3-4 MONTHS)**
- **COMMENCEMENT OF OPERATIONS**

We are continuously seeking ways to improve communications with our stakeholders. Let us know your thoughts.

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Appendix O7
Terms of References (TOR) Comments Received
and
Proponent Responses

Goldboro LNG Project – Comments On Draft Terms Of Reference

(Comments as per NSE Letter of 3 April 2013 to Pieridae Energy Limited)

Comment	Response (Pieridae Energy Limited)
NS Environment General comments on the Registration Document:	
1. Add to Table 2.1: Under Activities Designation Regulations (Section 5): The alteration of any wetland requires an approval. Subject to stipulations laid out in Nova Scotia's Wetland Conservation Policy. Permit Required.	Agree. This will also be added to the EA report.
2. Overall comment, original EA was approved before the initiation of the NS Wetland Conservation Policy. Wetlands (Section 6.8) must now be assessed by qualified wetland professionals and a thorough wetland survey will be required (as noted to be carried out in 2013). It is important to note that wetland alterations will not always be approved, and all wetland alterations will require compensation.	Noted. EA will comply with NS Wetland Conservation Policy.
Comments on the Terms of Reference:	
3. Under 9.2.3 "Wetlands", the EA report should also determine whether any wetlands within the predicted zone of influence are "wetlands of special significance" as defined by the Nova Scotia Wetland Conservation Policy. Wetlands of special significance will not usually be granted approval for alteration.	Noted. EA will comply with NS Wetland Conservation Policy
NS Transportation & Infrastructure Renewal NSTIR staff have reviewed the Registration Document and Draft Terms of Reference for the proposed Goldboro (Pieridae Energy) LNG Project. We offer the following comments:	
The environmental assessment report should include a description of transportation routes for any oversized project components for which Special Moves Permits would be required by NSTIR.	Agree. This will be addressed in the EA report.

Goldboro LNG Project – Comments On Draft Terms Of Reference

(Comments as per NSE Letter of 3 April 2013 to Pieridae Energy Limited)

Comment	Response (Pieridae Energy Limited)
Anticipated changes in local traffic density during all phases of the project should be assessed.	Agree. This will be addressed in the EA report.
Any work to be completed within the right of way of any provincially owned highway should be discussed.	Agree. This will be addressed in the EA report.
NS Communities, Culture & Heritage Staff of the Department of Communities, Culture and Heritage have reviewed the Registration Document for the Goldboro LNG Project and have provided the following comments:	
<u>Archaeological and Historical Sites</u> Staff have reviewed the EA document. There is a brief piece on archaeology on page 49 of the EA document. The archaeological work quoted is from 2004 and the section on archaeology does not detail the archaeological work done. The EA also mentions that there may have been other archaeological work done for the area under the Maple LNG project and there has been a FOIPOP request submitted to access that information. The proponent indicates that they are not sure about the extent of archaeology previously conducted, and the results of any additional work outside the Goldboro LNG process. Staff note that an application has been made for a heritage research permit to conduct a review of archaeological work previously conducted in the vicinity of the site. The results of this review should inform requirements for further archaeological work. Our preferred approach is to be sure the development area(s) have been professionally/thoroughly archaeologically assessed and the reports approved including any associated recommendations, before the project begins. The 2006 archaeological resources impact assessment included four recommendations, which our department agreed with. They are: 1. Archaeological monitoring for the MacMillan Mine Site.	It is of note that the Registration Document does not represent Pieridae's Environmental Assessment (EA) Report. Agree with the four recommendations stated in the 2006 report and agree to add these to the EA report. Instead of appending "all archaeology reports with recommendations", the EA report will state and address all the recommendations made from the past archaeology reports pertaining to the project area.

Goldboro LNG Project – Comments On Draft Terms Of Reference
(Comments as per NSE Letter of 3 April 2013 to Pieridae Energy Limited)

Comment	Response (Pieridae Energy Limited)
2. The Dung Cove Site must be subject to archaeological investigation prior to any development work in the area. 3. The development plans around the Griffin's Mill Site should be monitored carefully. If this site is threatened with impact, it should be the subject of archaeological investigation before the area is disturbed. 4. The development plans around the South Maitland Lead Site should be monitored carefully. If this site is threatened with impact, it should be the subject of archaeological investigation before the area is disturbed. There are Appendices but they consist of technical drawing and figures only. Figure 6.1 indicates several areas with noted heritage resources, 4 are within the project footprint. The EA does not clarify how each of these has been addressed. The EA should append all archaeology reports with recommendations.	
<u>Botany</u> Staff have review the documents supplied for the Plant Species-at-risk including those previously generated in 2006. In the Plant Inventory Appendix, a sedge Carex cf. atlantica was recorded. As there is an implied identity question and as Carex atlantica, spp. Capillacea is globally imperiled, some mention should be made about its presence/absence in the 2012 plant surveys. Staff also note only a September survey was conducted. Any spring ephemerals present may not be found during a September survey. Additionally, there is no mention made of who conducted the plant surveys or if they were botanists or geologists. This may be an oversight but it is important to report the use of botanists for Plant Species-at-risk surveys. In general, Staff find that the Plant Species-at-risk surveys are inadequate.	Agree. The September 2012 surveys were not supposed to cover Spring ephemerals. Additional plant SAR surveys will be conducted in June 2013. All relevant data sources, survey methods and qualifications of any field staff will be presented in the EA report.

Goldboro LNG Project – Comments On Draft Terms Of Reference

(Comments as per NSE Letter of 3 April 2013 to Pieridae Energy Limited)

Comment	Response (Pieridae Energy Limited)
Zoology Staff have gone through the material provided. The document appears to adequately reflect our state of knowledge for the site. Consequently, staff have no comments to add within the Zoological Sphere.	Noted.
Comments from African Nova Scotia Affairs A previous proponent had provided Archaeological and Heritage Resources Management Plan, which included clear provisions regarding the management of the discovery of any human remains. This outlined protocol is absent from the most recent registration documents, and should be included in any go-ahead plan for this undertaking.	Agree. This will be included with the EA report.
Further, the Minister of Environment and Labour's 2007 terms and conditions for approval included a number of conditions regarding community involvement and archaeological/heritage resources. Conditions 4.0-4.6, as well as condition 4.9 of these terms should be part of any new approval for this project. It is recommended that a public recording and communication protocol be linked to the archaeological monitoring plan.	Agree. Pieridae will include a commitment to linking the archaeological monitoring plan to a public recording and communication protocol.
NS Health and Wellness	
The following list are items that must be considered while completing the Environmental Assessment for the Goldboro LNG Project in Guysborough county: • Water assessment surveys on wells (dug and drilled) in the area. • Waste – solid and liquid, how they plan on treating/disposal of it. • Emergency management plan for spills (chemicals), air/water releases, fire etc.	Agree. This will be addressed in the EA report.

Goldboro LNG Project – Comments On Draft Terms Of Reference

(Comments as per NSE Letter of 3 April 2013 to Pieridae Energy Limited)

Comment	Response (Pieridae Energy Limited)
• Air quality concerns in regards to dust (during, after construction) and chemicals (during and after construction) – there should be a plan in place to ensure the dust and any chemical releases (NOx, SOx, CO) are measured and remediated if necessary. • Pedestrian safety assessment, there are not a lot of homes in the area, however during the reconfiguration of highway 316 issues may arise. • Decommissioning plan. • Safety plan for staff/workers on site.	
Kwilmu'kw Maw-klusuaqn Negotiation Office KMKNO has conducted a review of these documents and we wish to advise you that we are satisfied with the draft terms of reference for this project at this time. However, we wish to provide you with the following comments and/or recommendations:	
• KMKNO wishes to advise you this area has been significantly utilized by the Mi'kmaq of Nova Scotia for traditional use and occupation for the purposes of hunting, fishing and gathering. It is recommended that the proponent mitigate and compensate any potential impacts to traditional use activities.	Noted. This will be addressed in the EA report.
• KMKNO has concerns with any potential impacts to Mainland Moose in and surrounding the project area. It is recommended this species be assessed in the environmental assessment.	Agree. Mainland Moose will be addressed in the EA report.
• KMKNO understands the proponent intends to complete a Mi'kmaq Ecological Knowledge (MEKS) Study for the Goldboro LNG Project, and we wish to request a copy of the MEKS once it has been completed for internal review.	Agree. A copy of the MEKS will be provided upon completion.

Goldboro LNG Project – Comments On Draft Terms Of Reference

(Comments as per NSE Letter of 3 April 2013 to Pieridae Energy Limited)

Comment	Response (Pieridae Energy Limited)
• KMKNO has identified the project area as a high-use area for fishing, and we wish to advise you that a number of Food-Social-Ceremonial (FSC) licenses, and commercial licenses may be affected by the development of this project. Therefore, it is recommended that additional work should be completed by the proponent on any potential impacts to fish, fish habitat, and Mi'kmaq fishing activity and/or Mi'kmaq fishing licenses in and surrounding the project area as this project may have potential environmental and socio-economic impacts on the Mi'kmaq of Nova Scotia. Further, we recommend a Mi'kmaq fisheries communication plan and Mi'kmaq fisheries compensation plan be developed for this project.	A MEK Study will be prepared as part of the EA process. This will include a discussion of potential effects on fishing. The proponent's engagement program with Mi'kmaq communities will address potential project-related effects and establish in a cooperative approach commitments for effects management and communication.
• KMKNO understands the project area has been previously assessed archaeologically by Keltic Petrochemicals/Maple LNG, and a number of potential archaeological sites were identified and investigated, including some test pitting and excavations. KMKNO Archaeological Research Division (ARD) recommends that any areas that have not been assessed in the project area should be archaeologically assessed and it is expected that either systematic subsurface testing or photographic and fieldnote documentation of the rationale for not performing systematic subsurface testing.	A MEK Study and archaeological assessments will be prepared as part of the EA process. This will include a discussion of potential effects on archaeological sites. The proponent's engagement program with Mi'kmaq communities (incl. KMKNO-ARD) and will address potential project-related effects and establish in a cooperative approach commitments for archaeological fieldwork and documentation.
• It is our understanding that a Community Liaison Committee (CLC) will be established, and it is recommended that the CLC include a Mi'kmaq representative. This may be coordinated with KMKNO.	Pieridae intends to establish a CLC with Mi'kmaq representation.
• The Mi'kmaq of Nova Scotia expect that an Impact Benefits Agreement (IBA) will be completed for the Goldboro LNG Project.	Pieridae has commenced and will continue to engage Mi'kmaq communities in the EA planning process. As such, Pieridae is in the process of negotiating with the KMKNO a comprehensive Cooperation Agreement.
Health Canada Health Canada has reviewed the document and is providing the following comments for your consideration:	

Goldboro LNG Project – Comments On Draft Terms Of Reference
(Comments as per NSE Letter of 3 April 2013 to Pieridae Energy Limited)

Comment	Response (Pieridae Energy Limited)
• Section 3.2 (Project Location) – In addition to the information being requested (i.e. proximity to settled areas, individual and community water supplies), the actual location(s) and proximity of the nearest permanent and/or seasonal residences would be useful in evaluating the potential for health effects associated with project activities.	Agree. This will be included with the EA report.
• The Registration document indicates that wastewater (construction, process, and domestic) will be produced and discharged to the ocean. Changes to surface water quality as a result of effluent discharges have not been specifically identified in the TOR. Such a request could be presented in Section 10.2 (Water Resources) or Section 10.4.2 (Freshwater Aquatic and Marine Environment) of the TOR (e.g. a change in surface water quality as a result of effluent discharges from the Project site).	Agree. Potential changes to surface water quality as a result of effluent discharges will be addressed in the EA report.
• The proposed project is intended to be constructed in an area of known gold mine tailings and is also expected to release effluent to the marine environment. Section 10.5.2 (Fisheries, Aquaculture and Marine Harvesting) requests an evaluation of "changes in commercial/recreational fishing, aquaculture or other marine harvesting species including displacement, mortality or loss and/or alteration of habitat". In addition to this, the contamination of species consumed by people as a result of increased erosion and sedimentation (from on-site contamination) and from effluent discharges could also be considered.	Agree. This will be addressed in the EA report.
For more information about Health Canada's area of expertise and expectations with respect to information to be contained in environmental assessments (as applicable), Health Canada has recently published a document entitled "Useful Information for Environmental Assessments" which can be found at http://www.hc-sc.gc.ca/ewh-semt/pubs/eval/environ assess-eval/index-eng.php	Noted.
Environment Canada Environment Canada has reviewed the Draft Terms of Reference (ToR) and offer the following comments for consideration in finalizing the document:	

Goldboro LNG Project – Comments On Draft Terms Of Reference
(Comments as per NSE Letter of 3 April 2013 to Pieridae Energy Limited)

Comment	Response (Pieridae Energy Limited)
Wildlife and Species at Risk	
• Section 3.5: Recommend that a bullet be added for "Shipping".	Agree. Shipping will be included in the description of the project operation.
• The VEC Flora and Fauna has been separated into Terrestrial Environment and Freshwater Aquatic and Marine Environment sections. However, migratory birds are currently only mentioned in the Terrestrial Environment section. It should be clarified throughout the ToR that the EA must also include information on bird use of Freshwater Aquatic and Marine Env., effects on these species and the habitats that they utilize, as well as mitigation measures for adverse effects on these species and their habitats.	Agree. The EA report will address both, bird use of freshwater aquatic and marine environments and potential project effects.
• Sections 10.4 and 11.4: This section should not only include activities that may affect birds and their habitats related to construction and operations taking place on land, but also activities in the aquatic environment, including the effects of shipping operations and vessel traffic on avifauna. This section should also include potential effects of accidental events, including spills, vessel collisions or groundings, and bird attraction to lights and flares, as well as contingency plans.	Agree. This will be addressed in the EA report.
• Sections 9.4, 10.4, 11.4: The text should reflect that the EA should describe and consider effects and propose mitigation for adverse effects on, the following: Birds, including those species protected under the Migratory Birds Convention Act and associated regulations (MBCA), and those species under provincial responsibility, with particular, but not exclusive, consideration to birds or habitat that meet the following criteria: o Species listed under the Species at Risk Act (SARA) and/or provincial species at risk legislation; designated, under review or identified as candidate species by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC); and/or with rarity ranks assigned by the province and/or the Atlantic Canada	Agree. This will be addressed in the EA report. Information sources noted.

Goldboro LNG Project – Comments On Draft Terms Of Reference
(Comments as per NSE Letter of 3 April 2013 to Pieridae Energy Limited)

Comment	Response (Pieridae Energy Limited)
Conservation Data Centre (ACCDC); ○ Critical habitat for species at risk; ○ Areas of concentration of migratory birds, such as breeding areas, colonies, spring and fall staging areas, flight corridors, and wintering areas; ○ Breeding and nesting areas of species low in number and high in the food chain; ○ Interior and mature forest habitat; ○ Flight corridors; ○ Species that are identified by priority ranking systems (Partners-In-Flight*); or ○ Habitats in or near areas that have been or are in the process of being identified by land managers as particularly important to the survival of the species globally, regionally, or locally, or habitats valued by local users of the resource. These include, but are not limited to, areas with the following existing, proposed, or potential designations: ▪ Migratory Bird Sanctuaries, ▪ National Wildlife Areas, ▪ Ramsar sites, ▪ Western Hemisphere Shorebird Reserve Network sites, ▪ Important Bird Areas, or ▪ Other types of protected or designated areas that have been established, in part, to protect migratory birds and their habitat, such as those established through the	

Goldboro LNG Project – Comments On Draft Terms Of Reference
(Comments as per NSE Letter of 3 April 2013 to Pieridae Energy Limited)

Comment	Response (Pieridae Energy Limited)
Eastern Habitat Joint Venture. *For information on Partners-in-Flight priority species in Newfoundland and Labrador, please consult the Canadian Wildlife Service. Information on Partners-in-Flight priority species in the Maritimes can be found in: Busby, D., P.J. Austin-Smith Sr., R. Curely, A. Diamond, T. Duffy, M. Elderkin, S. Makepeace, D. Diamond, R. Plan. Technical Series no. 449, Canadian Wildlife Service, Atlantic Region. 43pp.	
• Methodology and results of bird surveys should be clearly presented, and include maps (to scale) showing areas where surveys were undertaken in relation to proposed project infrastructure.	Agree. This will be included in the EA report.
• Maps showing any SAR and species of conservation concern, designated or protected areas, areas of concentrations of birds or other wildlife, flight corridors, wetlands, interior and mature forest habitat, flight corridors, etc., should be shown in relation to project infrastructure on appropriately scaled maps.	Agree. This will be included in the EA report.
• When considering migratory birds in the EA, information should be structured by species groups (i.e. waterbirds, shorebirds, waterfowl, landbirds).	Agree. The EA report will be structured accordingly.
• Several types of migratory bird habitat are in decline in Nova Scotia (NS), including mature coniferous forest, mature deciduous forest and mature mixed forest. This is a concern because certain species prefer mature forest habitat. Furthermore, some bird species, generally known as interior species, only prosper when the tracts of mature forest are relatively large and unfragmented (i.e. interior forest). It is desirable for projects to avoid causing further loss and fragmentation of these habitat types, and to avoid further fragmentation of the landscape. The EIS should include: o Mapping that identifies mature and interior forest habitat for migratory birds in both the study area and footprint area, along	Agree. This will be addressed in the EA report.

Goldboro LNG Project – Comments On Draft Terms Of Reference
(Comments as per NSE Letter of 3 April 2013 to Pieridae Energy Limited)

Comment	Response (Pieridae Energy Limited)
with a rationale as to why this habitat cannot be avoided; ○ An analysis of project impacts on mature and interior forest habitat for migratory birds on a local scale taking into account cumulative losses (and taking into account the species of migratory birds that use these habitats, as demonstrated by bird surveys); ○ Proposed mitigation for the predicted loss of mature and interior forest habitat for migratory birds. • If habitat fragmentation already occurs in a project area, this will not be used to dismiss potential effects of further loss or fragmentation of habitat, as this would ignore potential for cumulative effects.	
• "Wetlands" should also include coastal wetlands (e.g. salt marshes, eelgrass beds).	Agree. This will be addressed in the EA report.
• "Sensitive Coastal Habitats" (e.g. dunes, beaches) should be included as a Valued Ecosystem Component.	Agree. This will be addressed in the EA report.
• Grey literature or other reports referred to in the environmental assessment (EA) that may be difficult for members of Technical Review Committee (TRC) to obtain should be provided to the TRC by the proponent at the time of submission of the EA.	Agree. Such sources will be provided to the TRC at the time of submission of the EA.
• If ponds and water treatment plants are being proposed, then potential effects on wildlife (including bird use of these) should be assessed. For instance, if these ponds were to contain substances harmful to migratory birds, what measures would be taken to ensure that birds are not attracted to these ponds?	Agree. This will be addressed in the EA report.

Goldboro LNG Project – Comments On Draft Terms Of Reference
(Comments as per NSE Letter of 3 April 2013 to Pieridae Energy Limited)

Comment	Response (Pieridae Energy Limited)
Site Contamination The need to consider disturbance of contaminated soils is included in Section 11.1. Potential contamination sources in the project area should be examined and potential pathways that could interact with this project identified. Based on knowledge of historical mining activities and ongoing monitoring efforts in this area of Nova Scotia, mine tailings are likely present near the site. This issue should also be reflected in Sections 9.1, 9.2, 10.1 and 10.2. Emphasis should be placed on avoidance of these areas. In cases where contamination sources cannot be avoided, a risk-based assessment approach may be necessary.	Agree. This will be addressed in the EA report.
Water Management Water supplies should be identified and water demand characterized (e.g., volumes, extraction rates). Opportunities to decrease water consumption (e.g., conservation, technology) could be identified and assessed. Applicable sections include 3.3, 9.2 and 10.2.	Agree. This will be addressed in the EA report.
Contingency Planning and Emergency Response The ToR should require the proponent to identify specific risks to the environment from accidental events at the facility. This should include a description of events that could occur, the applicable design standards and regulatory requirements that will be incorporated into project design and operations; risk assessment where applicable; and, emergency response measures and contingency planning.	Agree. This will be addressed in the EA report.
NS Department of Natural Resources DNR has been requested to review the Environmental Assessment document and provides the following comments:	
General Comments & Recommendations:	

Goldboro LNG Project – Comments On Draft Terms Of Reference
(Comments as per NSE Letter of 3 April 2013 to Pieridae Energy Limited)

Comment	Response (Pieridae Energy Limited)
Wildlife:	
Table 3.1 p 13 – Pieridae has identified that they have engaged with key local stakeholder and interest groups, several potential parties are identified in Table 3.1. There is no explicit reference to consulting/engaging with all the potential stakeholders identified in 3.1; however, one of these, the Eastern mainland Field Naturalists has to my knowledge not existed for at least the past 8 years.	Noted.
Table 3.2 p 14 – lists several public and agency consultation sessions. There is no mention of any consultation or information gathering session(s) from NSDNR. Would like confirmation that consultation has taken place with the Department, identifying who was met with and the results of the consultation, specifically on wildlife related issues.	Consultation with DNR staff has taken place following receipt of DNR comments on the draft TOR; consultation will continue during preparation of the EA and related fieldwork and assessments.
Section 6.9.2 p 44 – Vertebrates other than birds; DNR records show that moose have not been identified within the boundaries of the project footprint to this date. A cow moose was identified in September 2006 approximately 2 km north along highway 316. Another moose sighting occurred within the Isaac's Harbour Peninsula in 2010 approximately 4 km west of the project footprint, and several moose sightings have been recorded over the past 12 years between the project area and Country Harbour Mines. Moose are definitely using the general area and habitats found within the project footprint are capable of supporting moose. The deer wintering area previously identified remains.	Noted. Mainland Moose and the deer wintering area will be addressed in the EA Report.
Section 6.9.3.1 p 45 Migratory Birds – 2013 coastal winter waterfowl surveys for the area between Port Bickerton and New Harbour Head, including the Red Head area showed wintering populations of common mergansers, common eiders, white wing scoters, and Canada geese, wherever open water was found. This project will definitely impact the use of these areas by overwintering waterfowl, and shorebirds. The reference to double crested cormorants being non-migratory is incorrect.	Noted.

Goldboro LNG Project – Comments On Draft Terms Of Reference
(Comments as per NSE Letter of 3 April 2013 to Pieridae Energy Limited)

Comment	Response (Pieridae Energy Limited)
Appendices	
Figure 6.4 Red Head Surface Water Features: The ponds identified are important seasonal habitats for a wide variety of wildlife. Ponds 4, 5 and 6 will see the greatest potential impact. Generally speaking, this project will not be benign on the landscape. Infrastructure and industrial activities will have significant effects both direct and indirect on local wildlife and habitats.	Noted.
Wetlands, watercourses, and surface water ponds will be lost or significantly altered. The document acknowledges the need for updating information, and I would concur. Site surveys for boreal felt lichen, rare plants, and mainland moose should be completed this spring and summer. Surveys for mainland moose sign would be appropriate for this spring before green-up.	Agree. This has been discussed with DNR staff and additional field surveys will be conducted to address the comment.
Discussions with Environment Canada to update any concerns or information on the potential impacts to roseate terns should also be completed. Once these activities are completed to agreed upon agency standards discussions on some form of environmental compensation should be considered.	Agree. Discussion will be initiated with EC regarding roseate terns.
Regional Services: The draft terms of reference outlining the requirements for an Environmental Assessment appear adequate. With regard to potential impacts on Crown Land there isn't any dry Crown Land involved with the proposed project, as per the information in the project summary. Beach area and submerged Crown Lands are involved therefore requiring authority under the Crown Land and Beaches Act. Issuance of these authorities pending review and recommendations based on finalized project plan.	Noted. This information will be added to the EA report.

Goldboro LNG Project – Comments On Draft Terms Of Reference
(Comments as per NSE Letter of 3 April 2013 to Pieridae Energy Limited)

Comment	Response (Pieridae Energy Limited)
Land Administration: Staff has reviewed the draft terms of reference for the EA regarding the LNG project in Goldboro and indicated no concerns or comments regarding this document, they believe it covers the information we would be looking for from our (Crown Lands) perspective.	Noted.
Fisheries and Oceans Canada (DFO) (Comments provided for various Draft TOR pages as noted).	
Page 16 1. Perhaps add to this "Fishery", it is noted below in 9.5.2, but might be worthy to place in this heading. 2. "and species utilized by Aboriginal" Page 18 1. Suggest inserting "Where impacts to fish habitat cannot be avoided or mitigated, discuss compensation measures to ensure impacts are offset". Page 19 1. Insert "during all phases of the Project". 2. As before, perhaps insert "Fishery" into this heading. Page 23 1. "Fishery" resources. Page 27 1. Just making note here that with any federal regulatory triggers/actions	Noted.

Goldboro LNG Project – Comments On Draft Terms Of Reference
(Comments as per NSE Letter of 3 April 2013 to Pieridae Energy Limited)

Comment	Response (Pieridae Energy Limited)
(such as a Fisheries Act Authorization) there would likely be federal consultation initiated as well.	
Industrial Stakeholders Comments	
Encana Corporation is an energy producer based in Calgary, Alberta. Encana owns and operates the Deep Panuke Project offshore Nova Scotia. The Deep Panuke gas export pipeline makes landfall in Goldboro, NS immediately adjacent to the Pieridae Energy LNG facilities proposed in Goldboro, NS. As a result, Encana has an interest in the matters to be considered in this Environmental Assessment (EA). Encana has reviewed the EA registration information and draft Terms of Reference for the EA report filed by Pieridae Energy. We request that the final Terms of Reference give due consideration to the effect of the proposed LNG facility upon adjacent facilities, such as the Deep Panuke pipeline.	Agree. This will be addressed in the EA report.
Summary of Comments By Individuals **(57 responses in total; all represent general comments on the project rather than requests for changes to the Draft TOR)**	
1. Direct economic benefits from employment and taxation. 2. Cleaner fuel type. 3. Complete assessment under 1 year (not 32-33 months as with Keltic). 4. Do not repeat studies that have already been done for Keltic and Sable. 5. LNG is a safer fuel type. 6. Two stage construction (one “train” at a time) will reduce stress on local accommodations and amenities.	Noted. These stakeholder comments will be included in the EA report.

Goldboro LNG Project – Comments On Draft Terms Of Reference

(Comments as per NSE Letter of 3 April 2013 to Pieridae Energy Limited)

Comment	Response (Pieridae Energy Limited)
7. Will support existing regional energy projects in the future. 8. Will improve local property values. 9. Use best technology in design.	

Appendix O8
Opinion Poll

2013 Goldboro Natural Gas Study

June 2013

CRA
CORPORATE RESEARCH ASSOCIATES

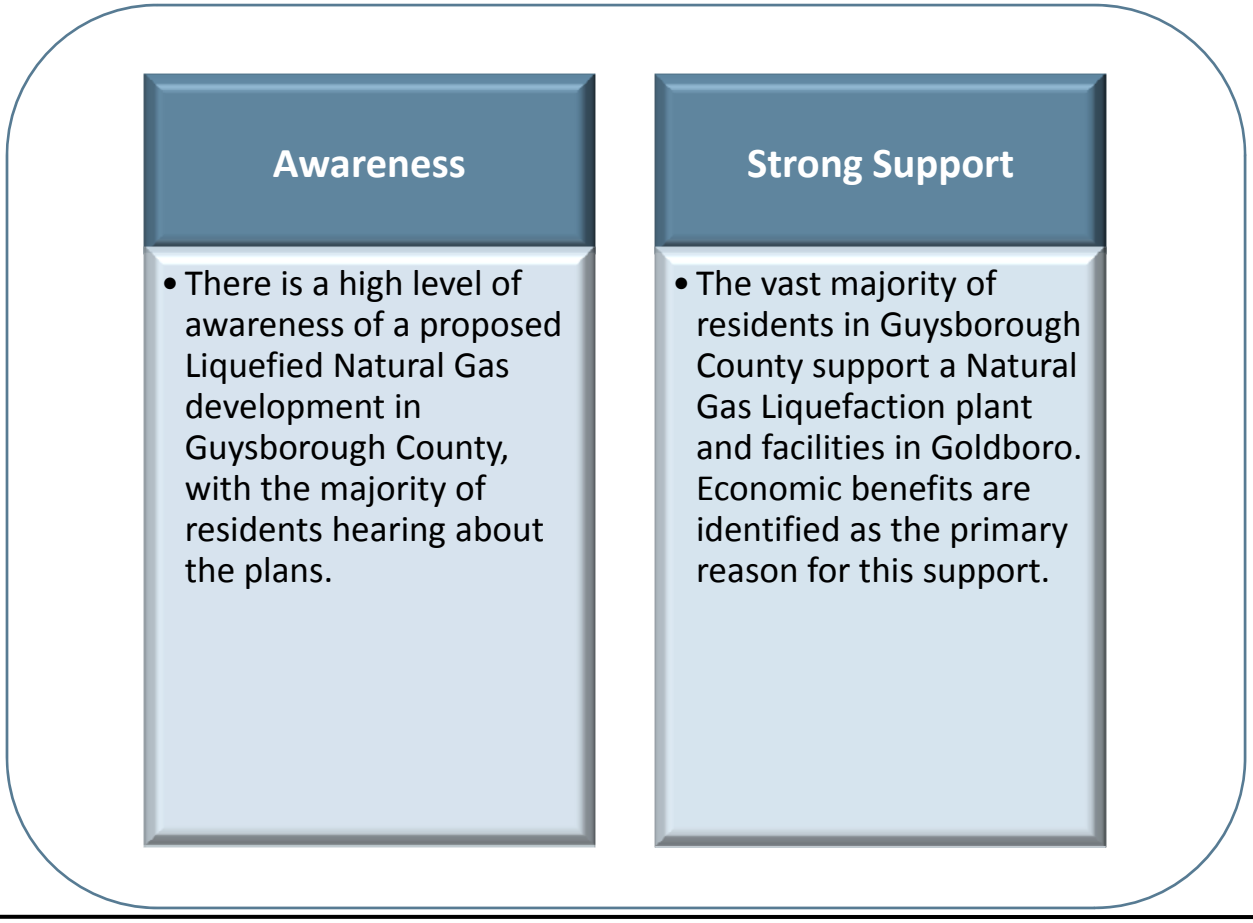
Introduction and Methodology

The following report presents the findings from the ***2013 Goldboro Natural Gas Study***, conducted by Corporate Research Associates, on behalf of Pieridae Energy.

CRA conducted a telephone survey with 300 residents in Guysborough County. The survey was conducted from May 29 to June 8, 2013. The margin of error on a sample of 300 residents is plus or minus 5.7 percentage points, 19 times in 20.

Highlights

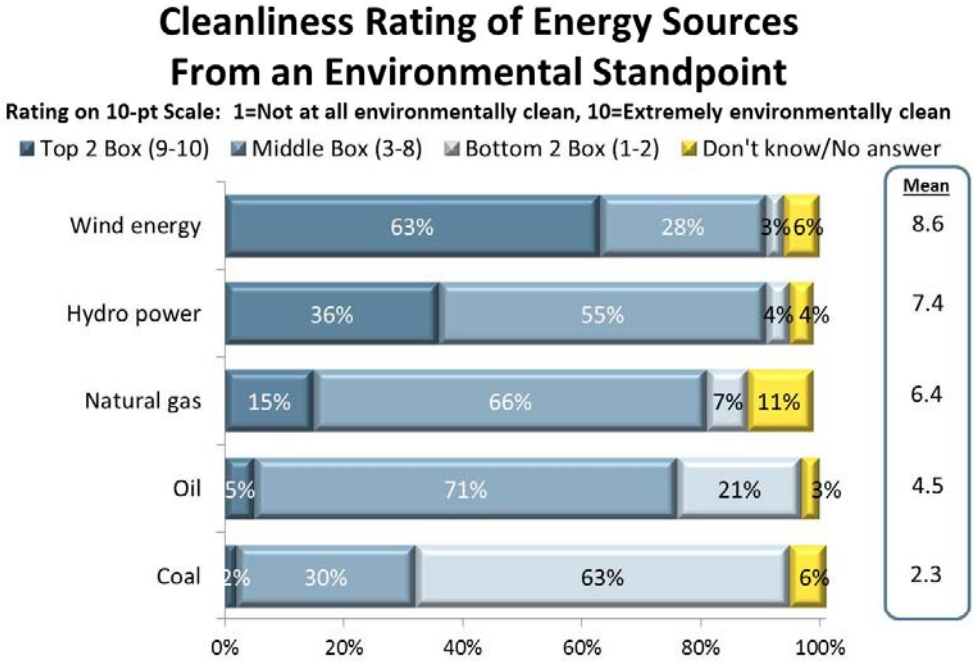
There is a high level of awareness and support for a natural gas facility in Goldboro, with residents recognizing the economic benefits that such a project will bring to the local area.



Opinion of Sources of Energy

Residents understand that natural gas is a cleaner energy option when compared with oil or coal.

Natural gas is considered a much cleaner source of energy when compared with coal or oil, but is considered less clean than hydro power or wind energy. (Table 1)

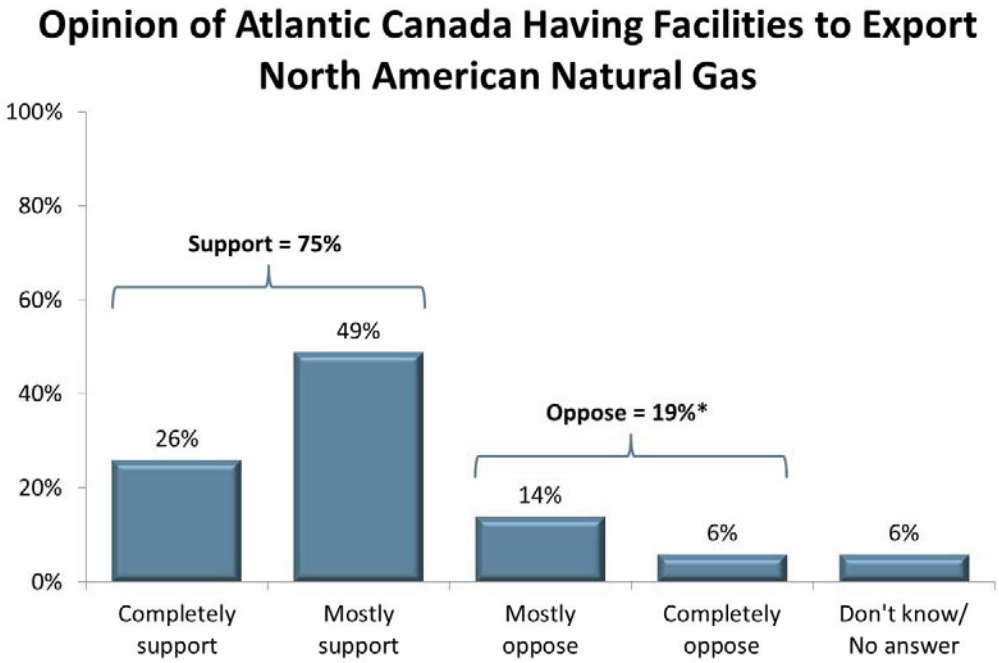


Q.1a-e: Please indicate how clean, from an environmental standpoint, you consider each of the following sources of energy. Please use a scale of '1' to '10', where '1' is not at all environmentally clean, and '10' is extremely environmentally clean. (n=300)

Opinion of Natural Gas Facilities

There is a high level of support for Atlantic Canada having facilities to export natural gas.

Three-quarters of Guysborough County residents are in support of Atlantic Canada having facilities for the exporting of natural gas. On the other hand, two in ten residents are opposed to such a facility, with just six percent *completely* opposed. Support is higher among those with a higher household income, and those with a post-secondary education. (Table 2)



Q.2: As you may or may not know, Canada is the world's third largest producer of natural gas. Do you completely support, mostly support, mostly oppose, or completely oppose Atlantic Canada having facilities to export North American natural gas? (n=300) **Due to rounding.*

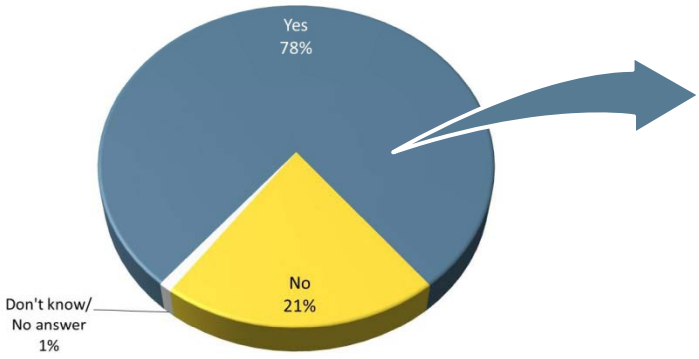
Goldboro Facility

Guysborough residents are aware of plans for an LNG plant in the area.

There is a high level of awareness of plans for a Liquefied Natural Gas plant in the local area, with eight in ten residents aware. Awareness is higher among residents 35 years of age or older, those with a household income of $50,000 or more, and those with higher levels of education. (Table 3)

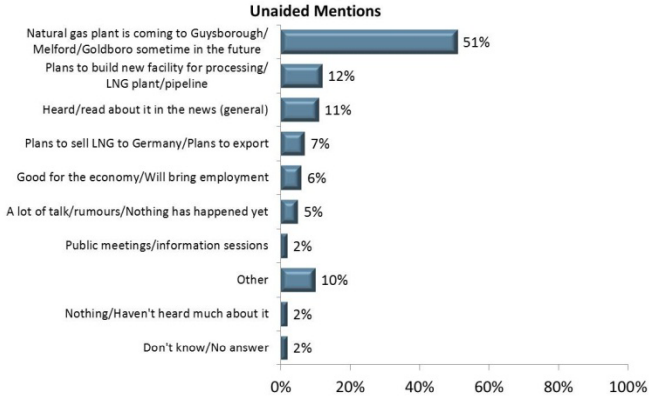
Residents have heard general information about the plans, with one-half recalling that a natural gas plant is planned for the Guysborough area, and approximately one in ten recalling there are plans to build a new LNG facility, or that there are plans to export the natural gas. (Table 4)

Prior Awareness of Plans for Liquefied Natural Gas or LNG Developments in Area



Q.3: Prior to today, were you aware of any plans for Liquefied Natural Gas or LNG developments in your area? (n=300)

What Have You Heard About Plans for Liquefied Natural Gas or LNG Developments in Area

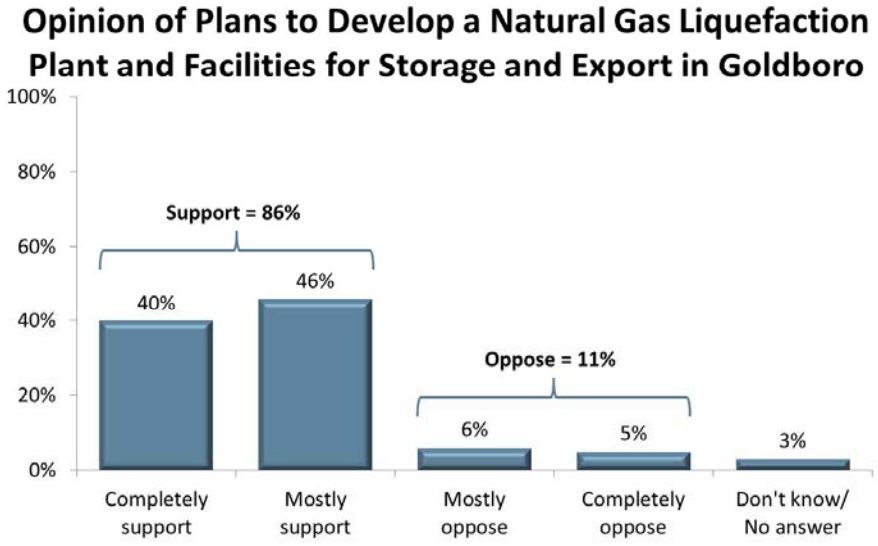


Q.4: **[ASK IF YES IN Q.3]** What have you heard about plans for Liquefied Natural Gas or LNG developments in your area? (n=238)

Opinion of Goldboro Facility

The vast majority of residents support the development of an LNG plant in Goldboro.

The majority of Guysborough County residents are in support of the proposed Natural Gas Liquefaction plant in Goldboro. Indeed, four in ten residents *completely support* the plant, and just one in ten are opposed. Residents who live closest to the proposed location are less likely to be in support as compared with those elsewhere in the County. (Table 5)



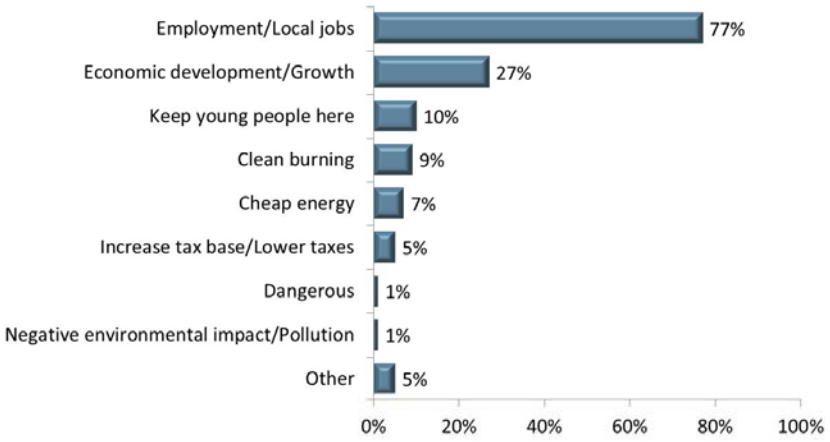
Q.5: As you may or may not know, there is a proposal to develop a Natural Gas Liquefaction plant in Goldboro in the Municipality of the District of Guysborough. The project will include facilities for liquefying natural gas, storing and exporting of Liquefied Natural Gas, including a marine jetty for loading ships. All things considered, do you completely support, mostly support, mostly oppose, or completely oppose a Natural Gas Liquefaction plant and facilities for the storage and export of Liquefied Natural Gas in this area? (n=300)

Opinion of Goldboro Facility *(Con't)*

Those who support a natural gas liquefaction plant in Goldboro are in favour as a result of the economic impact such an initiative would have, with residents commenting on employment and economic development. (Table 6: Support)

Reasons Support a Natural Gas Liquefaction Plant and Facilities for Storage and Export in Goldboro

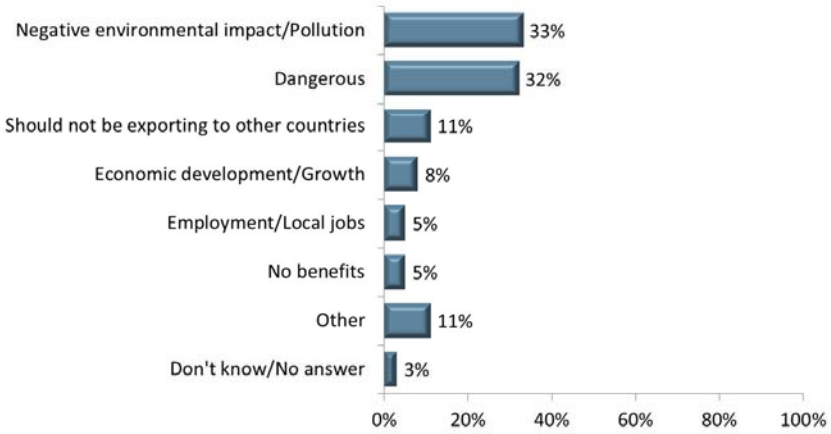
Unaided Mentions Among Those Who Support



Q.6: **[IF 'COMPLETELY SUPPORT'/'MOSTLY SUPPORT' IN Q.5]** What is the single most important reason you SUPPORT a Natural Gas Liquefaction plant and facilities for the storage and export of Liquefied Natural Gas in Goldboro? (n=258)

Reasons Oppose a Natural Gas Liquefaction Plant and Facilities for Storage and Export in Goldboro

Unaided Mentions Among Those Who Oppose



Q.6: **[IF 'MOSTLY OPPOSE/COMPLETELY OPPOSE' IN Q.5]** What is the single most important reason you OPPOSE a Natural Gas Liquefaction plant and facilities for the storage and export of Liquefied Natural Gas in Goldboro? (n=32*)
**Caution: Small sample size.*

Those who oppose a Natural Gas Liquefaction plant in Goldboro are concerned with the environmental impact, or they perceive the plant to be dangerous. (Table 6: Oppose)

Methodology

Sample Design and Selection

The 2013 Goldboro Natural Gas Study was designed to complete telephone interviews with a representative sample of 300 adult residents of Guysborough County.

Prior to being finalized, the survey was pre-tested on a small number of respondents to ensure the appropriateness of the questions and response categories.

Data Weighting

The final data set was weighted to be representative of the age and gender distribution of the geographic locations sampled, as determined from the 2011 Census of Canada.

Data Collection

Data collection was conducted by telephone between May 29 and June 8, 2013. The average length of time required to complete an interview was 6.5 minutes. Trained and fully supervised interviewers conducted all interviewing, and a field supervisor subsequently verified 10 percent of all interviews through monitoring.

Sample Size and Tolerances

A sample of 300 produces a sampling error of plus or minus 5.7 percent in 19 out of 20 samples. The margin of sampling error will be greater for regional sub-samples, as presented in the following table.

Sampling Tolerances for Percentage Results by Sample Size					
Size of Sample	**10 or 90%**	**20 or 80%**	**30 or 70%**	**40 or 60%**	**50%**
300 Interviews	3.4	4.5	5.2	5.5	5.7
200 Interviews	4.2	5.5	6.3	6.8	6.9
100 Interviews	5.9	7.8	9.0	9.6	9.8
50 interviews	8.3	11.1	12.7	13.6	13.9

Appendix O9
Community Liaison Committee

Community Liaison Committee Composition

Members	Representation
Regional Stakeholders	
1	African Nova Scotian
2	First Nations
Local Stakeholders	
3	Isaac's Harbour
4	Seal Harbour/Drum Head
5	Goldboro
6	Country Harbour
7	Fisheries
Government Stakeholders	
8	Municipality of the District of Guysborough (MODG) Staff
9	MODG Councillor District # 7
Proponent	
10	Pieridae
11	Pieridae