



**Evaluation of the:**

**Rationale for Route Change of NG Pipeline from FSRT to Old Harbour  
as part of the  
New Fortress Energy Marine Terminal and Pipeline Project  
Old Harbour, St. Catherine**

**Original EIA: September 2016  
Route Change and Other Amendments: December 2017**

**Done by**

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*This document contains the professional opinion of the Jamaica Environment Trust (JET). In arriving at our opinion we made every reasonable attempt to ensure that our resource persons are informed and reliable and experts in the area in which their comment and analysis is sought. JET encourages readers to apply their own critical analysis to the information provided in this document and by others, particularly where JET's opinion differs from those others.*

With technical assistance from the Environmental Law Alliance Worldwide (ELAW) in Eugene, Oregon, the Jamaica Environment Trust (JET) evaluated the Rationale for Route Change of NG Pipeline From FSRT to Old Harbour as part of the New Fortress Energy Marine Terminal and Pipeline Project, Old Harbour, St. Catherine. We were not present at the public meeting held at Old Harbour Primary School, Marlie Acres, Old Harbour, Saint Catherine on January 10, 2018.

### **Summary Statement – Environmental benefits of the project**

If implemented correctly, this project is likely to result in significant improvements in air quality as the major component of the project is the replacement of the use of a dirty fuel (Heavy Fuel Oil [HFO]) with a substantially cleaner fuel (natural gas).

### **Comments about the Rationale Report**

The report highlights several changes being made to the EIA and the project. Among the most significant of these changes are the route for the LNG pipeline, and the technology/method used to lay it; as well as the change to the location of the metering stations and the associated withdrawal of the proponents' commitment to replant the mangroves that will be affected.

### ***Changes to the Pipeline***

The justification for the changes in the route and technology/method used to lay the NG Pipeline From FSRT to Old Harbour being suggested by the proponents, requires more information than has been made available in the Rationale Report. For example, this paragraph requires some explanation:

*“This was mainly an economic decision, however the availability of newer equipment with technologies which make it possible to lay pipes in confined spaces has caused a revisit to the routing as well as the possibility of reef damage due to HDD has led NFE design team to reconsider the routing.”<sup>1</sup>*

In the original EIA for the project, HDD was considered to be more environmentally friendly than trenching and as such *“will clearly have less impact on the seabed environment at the site.”<sup>2</sup>*

At that time the proponents felt certain that the environmental risks were minimized by the use of HDD technology. But according to the Rationale Report, it appears that the HDD rationale was not driven by environmental considerations at all, but rather by cost effectiveness; and now the HDD method is being cited as having potential negative environmental impacts.<sup>3</sup>

Either the HDD method is less environmentally damaging than trenching, or it is not. If there is a change in the proponents' understanding of the environmental impacts of the methods, then the data and information that the proponents used to come to their updated conclusions needs to be shared with the stakeholders before the amendments can be approved.

It is also not clear what pipelines are being referred to in this section of the Rationale Report:

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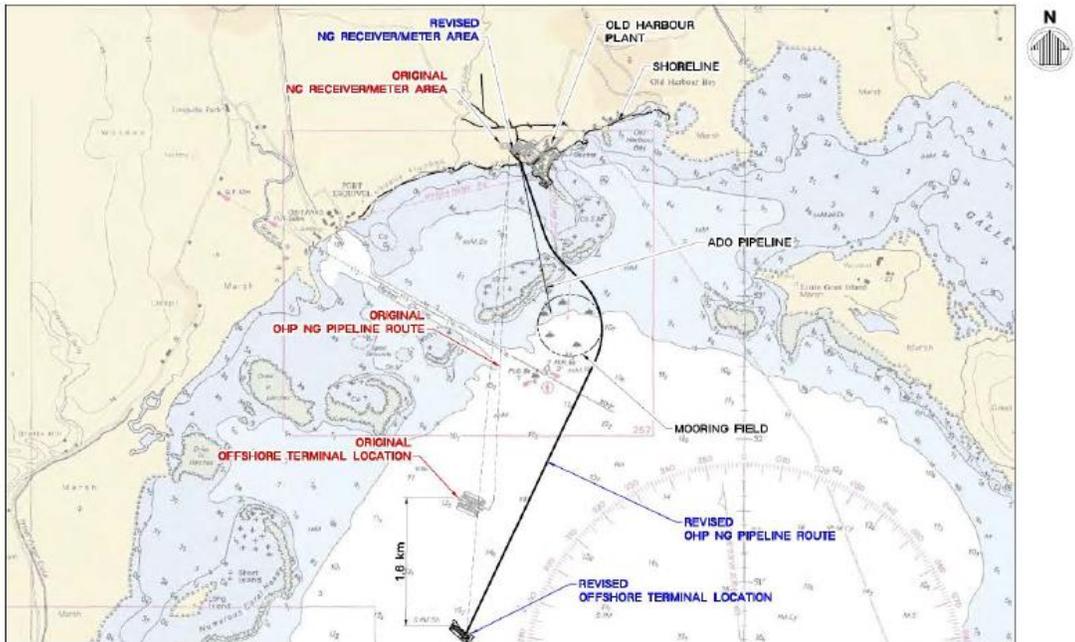
<sup>1</sup> Rationale Report, p. 7.

<sup>2</sup> Environmental Impact Assessment for the New Fortress Energy Marine Terminal and Pipeline Project, Old Harbour, St. Catherine (EIA). CL Environmental Consultants, LTD. September 2016. 558 pp. p. 449.

<sup>3</sup> Rationale Report, p. 7.

*“Both pipelines will be along the same route reducing the overall footprint of the project.”<sup>4</sup>*

The existing ADO pipeline goes in a different line, at least according to the figure provided in the Rationale Report, and the new ADO pipeline has been dropped from this project as part of the proposed amendments.<sup>5</sup>



**Figure 4. Proposed new route and New location of FSRT compared to originally permitted infrastructure.**

From a stakeholder’s perspective, it is also disconcerting to learn that permitting decisions were made without critical information about the logistics of the project:

*“At the time of permitting, NFE did not know what pipelay vessel would be available to perform the work. As a result, it was not known whether the size of pipelay vessel available could fit through the opening in the reef and perform the operation without risk. In addition, NFE did not yet have the detailed underwater 3D mapping that has been developed closer to the construction start date.”<sup>6</sup>*

It is perhaps understandable that the logistics of vessel availability were not known at the time of the EIA submission. However, the admittance that the information about the project area was not available at the time of permitting is of great concern. The proponents must have a very clear idea of the area where they will be working in order to understand the impacts of the project: that is the definition of an Environmental Impact Assessment.

<sup>4</sup> Rationale Report, p. 7.

<sup>5</sup> Rationale Report, p. 8.

<sup>6</sup> Rationale Report, p. 8.

Further to this point, the Rationale Report states that:

*“1. Depth of coral cannot be accurately known without drilling into the coral via boreholes to establish its depth.”<sup>7</sup>*

We disagree. The depth of reef structures can also be determined using the sonar technology used by oil and gas exploration companies to assess underground oil reservoirs.

Continuing through the Rationale Report, the meaning of this sentence requires clarification:

*“The equipment available will excavate a shallow trench and cover the pipe at the same time. This will reduce sedimentation.”<sup>8</sup>*

How sedimentation will be reduced is not stated. Digging the trench will result in a lot of sediment being re-suspended, as will re-covering the pipe.

Further to the point of sedimentation, the demonstration video of the CTC Marine UT-1 Jet Trencher provided by the project proponents (<https://www.youtube.com/watch?v=ck8rTorxRu0>) to JET, shows sediment spewing out on either side of the trench as it is being dug, with no effort to mitigate these impacts. Given the narrow space the boat will be operating in (the Swiber Quetzal has a breadth of 31.7 m; the space between the reefs is 32 m),<sup>9</sup> it seems unlikely that trenching through this space will not negatively impact the reefs. Both direct damage from machinery and boats bumping the reefs, and impacts from sediment being either spewed directly onto the reefs or re-suspended near the reef are likely to occur.

It remains unclear how this method (*“newer equipment with technologies which make it possible to lay pipes in confined spaces”<sup>10</sup>*) can eliminate risk to the reefs.

### ***Changes to the Metering Station***

The change to the location of the metering station appears to result in less impact to existing mangroves on shore, according to the proponents:

*“Less impact on healthy mangrove stand”<sup>11</sup>*

There is no indication that there will be no impact to the mangrove stand; however, the change to the location of the metering stations has been used to justify the withdrawal of the proponents’ commitment to replant the mangroves that will be affected. In the original EIA, the plan was to replant 3250 m<sup>2</sup> of mangroves.<sup>12</sup> Replanting is suboptimal compared to protecting existing mangrove stands, but better than no conservation efforts at all, which is what is being proposed in the Amendments.

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<sup>7</sup> Rationale Report, p. 7.

<sup>8</sup> Rationale Report, p. 11.

<sup>9</sup> Rationale Report, p. 9.

<sup>10</sup> Rationale Report, p. 7.

<sup>11</sup> Rationale Report, p. 12.

<sup>12</sup> Updated Change Matrices for the Amendments to the New Fortress Energy Floating Storage and Regasification Terminal and Pipeline Network At Old Harbour Bay, St. Catherine. 6 December 2017. 5 pp. p. 4.

### ***Logistics of a floating platform***

JET is interested in obtaining information about the logistics of a floating platform and the ease with which it can be disconnected and moved in the face of adverse weather. The precaution sounds good in theory, but how realistic is it in reality? And what will be left in the water during the hurricane conditions? Will the infrastructure pose any risk to onshore communities and marine habitats?

### ***Public Meeting***

JET found that the new project documents including the Public Meeting Notice, OHP Amendments, Rationale for Route Change, Amendments to the New Fortress Energy FSRT, Public Meeting Notes on September 28, 2016 and related EIA, were not easily accessed on NEPA's website. The documents were not found in the section entitled "Current EIAs" but were found under "2016 EIAs". Additionally, the home page of NEPA's website referred to the Public Meeting to discuss the amendments, but upon clicking the associated link we were directed to an old, unrelated public meeting notice for the development. This we find is unacceptable as the documents should be readily accessible to the general public via this medium.

### ***JET's Recommendations***

The National Environment and Planning Agency (NEPA) should require the proponents to provide the following information to the stakeholders prior to the application being considered substantively by NEPA:

- the data and information used to come to updated conclusion about how to lay the pipeline needs to be shared with stakeholders, before the amendments can be approved;
- give details on how sedimentation will be reduced by the newly proposed technology/method for laying the pipeline; and
- give details of how the floating platform will be disconnected in adverse weather, and whether the infrastructure will pose any risk to onshore communities and marine habitats

The proponents should also be required to abide by their original commitments to carry out mangrove replanting in the affected areas.

**Jamaica Environment Trust**  
**11 January 2018**