

# **A Review of the PSEG Long Island Part 102 Draft Report for the Riverhead to Eastport Reconductoring Project**

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“...the flawed Part 102 Report was accepted at face value, undermining and delaying the efforts by the public and public officials to rectify the damage caused by the project.”



## **“Monster Pole” Fatal Crash**

“Over one hundred steel poles were constructed about three feet from the highway... not conforming with New York State and National Guidelines for safety”

An Electronic copy of this document with active links is available on the website [EMPOAweb.com](http://EMPOAweb.com); follow the link “PSEG New Poles Docs Page” to “Special Reports”

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## Introduction

A review of the document known as the *Part 102 Draft Report for the PSEG Riverhead to Eastport Reconductoring Project* was completed on February 17, 2019; however, subsequent revisions were necessary in response to information submitted by the Department of Public Service and Long Island Power Authority. [See [DPS Letter](#) & [LIPA Letter](#)] This additional information confirmed that the preparation of the Part 102 Report was not required by law; and references to that issue have been removed from this report. Regardless, the purpose of this report is to confirm the validity of the conclusions reached in the PSEG “Part 102 Draft Report” and to ascertain the applicability of the Part 102 Report in the aftermath of construction. The Part 102 Report had concluded that, *“no significant adverse impacts have been identified in association with the proposed project” and that “the advantage/disadvantage analysis that is provided in Section 4.0 demonstrates that the overhead reconductoring of the circuit has significant advantages as compared to undergrounding the circuit. Given the analysis and considerations detailed in this report, it is concluded that the proposed project should be installed as designed via overhead reconductoring.”*

Following our review of this Part 102 Report, EMPOA found that the conclusions in the Report (Section 4.0) were for the most part incorrect and unsubstantiated, and that PSEG acted contrary to the spirit of the law and a previous agreement with the Department of Public Service (DPS). A complete copy of the PSEG Part 102 Report that LIPA had submitted to the New York State Department of Public Service is available at [Part 102 Draft Report](#).

## Summary of Findings

In accordance with the Public Authority Law (PAL), LIPA (as an “*Authority*”) and PSEG LI (as its “*service provider*”) were not required to submit the Part 120 Report prior to construction of the Riverhead to Eastport Reconductoring Project. However, during and after the course of construction, the Department of Public Service received complaints from public officials and affected communities. Based on the Public Service Law ([Article 1, Section 3-B](#)), Public Authority Law and the LIPA Reform Act, DPS is responsible to investigate and respond to complaints by the public concerning the project and to make recommendations to LIPA. From what we gathered, the Part 102 Report was a document submitted by LIPA to DPS as part of an official investigation; prompted by complaints from Senator LaValle and Assemblyman Thiele. As per LIPA, the Part 102 Report was submitted *“to show the community that the pre-construction review was appropriate and complied with the spirit of Part 102.”*[[LIPA Letter](#)] Contrary to this, EMPOA’s review of the Part 102 Report indicated that the pre-construction review was inadequate and did not comply with the spirit of the law. One of the primary purposes of preparing a Part 102 Report is to analyze the options of overhead versus underground transmission lines before construction starts; and to help decide the best option. PSEG LI and LIPA never did such an analysis. In this case, the Part 102 Report was prepared after the fact and used to justify the already completed overhead transmission lines; manipulating the facts and skewing the information in PSEG’s favor. In addition, the project exceeded certain thresholds pursuant to Part 102, which would have required *an investor-owned utility* to prepare an analysis of overhead versus underground transmission lines 60 days prior to construction.

PSEG did not do such an analysis and therefore, PSEG did not follow “*the process required of investor-owned utilities pursuant to Part 102*”. [Discussion on page 5]

In justifying its construction in the Part 102 Report, PSEG analyzed thirteen (13) “Categories” of concern (as specified in 16NYCRR Part 102.4) to show that overhead lines were more advantageous than underground lines. As a result of their analysis, PSEG determined that in ten (10) of the categories, the construction of overhead lines had a distinct “Advantage” and in one (1) category (Relative Visual Impact) the underground option had an Advantage. Two (2) of the Categories were designated to be “Neutral” (not favoring overhead or underground). Therefore, according to PSEG’s determinations, overhead lines had the advantage, 10 to 1, with 2 Neutrals.

On the other hand, EMPOA reviewed the same thirteen (13) Categories and drew different conclusions that favored the underground transmission line option (with a mitigation plan). In our analysis the construction of underground lines had a distinct Advantage in three (3) of the categories. Eight (8) of the other categories were designated to be Neutral and in 2 of the categories the advantages were “Undetermined”. According to our analysis, underground lines had the advantage, 3 to 0, with 8 Neutral and 2 Undetermined. [Discussion on page 14]

Furthermore, in the Part 102 Report, PSEG failed to identify any of the “*significant adverse impacts*” for the overhead lines, which have been shown to exist, and did not address any mitigation measures. **Several significant adverse impacts, associated with using overhead transmission lines were identified** in our review and the PSEG report was determined to be deficient in this respect. If PSEG had done the analysis properly, PSEG would have identified the significant adverse impacts, including impacts on traffic safety, land use policies, the historic district and visual impacts. Furthermore, the report did not present any mitigation measures to address these concerns or to improve any pre-existing visual or safety concerns (i.e., the existing wooden poles). Additionally, our analysis concluded that the use of **underground transmission lines had significant advantages**; and that undergrounding the lines would mitigate most of the impacts associated with the use of overhead transmission lines. Furthermore, we identified the advantages of combining the use of overhead and underground lines; using overhead lines in the more environmentally sensitive areas (woods and wetlands) and using underground lines along the roadways to mitigate the impacts on traffic safety and mitigate the visual impacts. It appears, based on the presentations in the Part 102 Report, that the preparers were biased against underground lines and had manipulated the analysis to justify the already completed construction of overhead lines. The failure of the review process has resulted in a multi-million-dollar mistake which has damaged the Eastport Region.

### **LIPA and PSEG did not follow the process required of investor-owned utilities**

It is generally accepted that construction of the steel poles started in April and was finished by the end of June of 2017. Based upon the January 22, 2019 correspondence from the LIPA Board of Trustees to EMPOA, the Part 102 Report was prepared by PSEG (in consultation with the consulting firm GEI); after construction was completed. [[LIPA to EMPOA Letter](#)] Furthermore, based on the January 7, 2019 correspondence from DPS to EMPOA, the Part 102 Report was received and reviewed by DPS staff on July 17, 2017; this was approximately two weeks after construction of the steel poles and transmission lines was completed. [[DPS to EMPOA Letter](#)]



Because of complaints from public officials and the affected communities, DPS conducted an investigation. The Part 102 Report was used to investigate the appropriateness of the project using a comparison of the review “processes” followed by LIPA and that which would be required by an “*investor-owned utility pursuant to Part 102*”. Once the investigation was completed, DPS had the mandate to draw conclusions and make recommendations (if any) to LIPA. During this time period, DPS did not attempt to identify or address the impacts of the project; nor did it consider the veracity of the SEQRA determination or Part 102 Report. DPS states, “*The SEQRA process is not within DPS jurisdiction, and DPS was not party to the SEQRA review.*” [DPS Letter to Thiele] DPS further states, “*...Part 102 does not apply to the Long Island Power Authority (LIPA or the Authority), or to PSEG LI as LIPA’s service provider, pursuant to both the Public Authorities Law (Pal) and the Public Service Law (PSL).*” [DPS Letter to EMPOA] So the question is, if DPS did not rely on SEQRA or Part 102, what did they use as a basis for investigating a complaint about the appropriateness of the Riverhead to Eastport Reconductoring Project? It is not clear what criteria DPS uses; however, Part 102 could have provided guidance: “*The commission after reviewing the utility’s report or after appeal by an interested party may order a formal investigation if the commission finds that overhead construction of the proposed transmission facilities may not be in the public interest or may not be required for the performance of the utility’s public service responsibilities with economy, efficiency and **care for the public safety, the preservation of environmental values, and the conservation of natural resources.***” (emphasis added) If DPS had used this guidance, it should have questioned, at least, the “public safety” issue involving the placement of the poles within the “clear zone” of CR 51; which were contrary to New York State and national guidelines for roadside construction (Discussion page 8). However, it appears that DPS limited the scope of their investigation to whether or not LIPA “*followed the process required by investor-owned utilities pursuant to part 102.*”

The DPS has indicated several times in its correspondence that “*...the Department reviewed the process PSEG LI followed against the process required of investor-owned utilities pursuant to Part 102. The Department’s review of the process found that, no additional processes would have been required beyond those which PSEG LI followed.*” This statement by DPS is contained in the following correspondence: [DPS Letter to EMPOA][DPS Letter to Thiele] [DPS to EMPOA Letter] This statement appears to be inaccurate, since the Riverhead to Eastport Reconductoring Project would have triggered “*additional processes beyond that which PSEG LI followed*”. Appendix A of the Part 102 Report (prepared by PSEG and its consultants) indicates that certain thresholds were met by the project, “*requiring an analysis by Section 102.4*”. Section 102.4 requires an in-depth analysis of overhead versus underground transmission lines, which must be submitted to DPS 60 days prior to construction. [See Part 102] PSEG did not do such an analysis prior to construction; and therefore, PSEG did not follow “*the process required of investor-owned utilities pursuant to Part 102*”. In addition, the SEQRA review that LIPA relied on **provided no analysis of overhead and underground transmission lines**; while the Part 102 Report **devoted an entire section to such an analysis** (albeit flawed). This further confirms the deficiency of the “*processes*” used by LIPA as compared to the processes of Part 102. If PSEG had undertaken the additional processes (i.e., analyzing underground versus overhead lines),

undergrounding the transmission lines would have been shown as the best option; eliminating the impacts and safety hazards along the roadways (CR 51 & CR 55).

Furthermore, DPS treated the Part 102 Report as a voluntary gesture on the part of PSEG as stated, *“LIPA’s and PSEG LI’s Part 102 draft report was submitted voluntarily in response to community interest.”* [[DPS Letter to EMPOA](#)].” From what we gathered, the Part 102 Report was a document submitted by LIPA to DPS as part of an official investigation; prompted by complaints from Senator LaValle and Assemblyman Thiele. Although it was “voluntary”, the part 102 Report was a document DPS needed in order to make a determination to properly resolve the complaints; and PSEG LI needed it in order to vindicate itself. At face value, the Part 102 Report vindicated PSEG LI by concluding that overhead transmission lines were a far superior choice to underground lines. DPS took this conclusion at face value and did not question the veracity of the report’s content; but the community did. When EMPOA challenged the veracity of the report (fraud?), DPS “strongly” disagreed and stated the following, *“Investigation into this issue, as you request, is not necessary or appropriate.”* [[DPS Letter to EMPOA](#)] EMPOA’s rational, independent review of the “Draft Part 102” (and “SEORA review”) yields a different conclusion; and clearly demonstrates the inconsistencies and skewing of information in the Part 102 Report. In fact, undergrounding the transmission lines was actually the best choice. The use of overhead transmission lines was wrong on many different levels as explained hereafter. As the regulatory agencies in charge, DPS (and the LIPA Board of Trustees) should have recognized this and rebuked PSEG and LIPA; rather than ignore the inconsistencies.

### **PSEG LI and LIPA violated the spirit of the law**

Furthermore, LIPA indicated in its January 22, 2019 correspondence that the Part 102 Report was intended to *“show the community that the pre-construction review was appropriate and complied with the spirit of Part 102.”* Contrary to this, EMPOA’s review indicated that the pre-construction review was inadequate and did not comply with the spirit of the law. One of the primary purposes of preparing a Part 102 Report is to analyze the options of overhead versus underground transmission lines before construction starts; and to help decide the best option. PSEG LI did not do such an analysis, even though it had a previous agreement with DPS to do so. [See [DPS Letters](#)] In any event, PSEG should have prepared an analysis in accordance with the *“processes of an investor-owned utility”* and good engineering practice, which it did not do. In this case, the Part 102 Report was prepared after the fact and used to justify the already completed overhead transmission lines; manipulating the facts and skewing the information in PSEG’s favor. [See pages 7 to 15 for discussion]

The flaws in the Part 102 Report (which EMPOA identified) should have been identified by the DPS Staff and LIPA Board of Trustees; if they had reviewed it. No evidence of substantive DPS comments have been provided and it appears that the flawed Part 102 Report was accepted at face value, undermining and delaying the efforts by the public and public officials to rectify the damage caused by the project.

## The Part 102 Report is misleading as to its purpose

During EMPOA's review process, it was noted that there was no indication of who prepared the report or when it was prepared. This raised a red flag as to whether the Part 102 Report was legitimately an attempt to analyze overhead versus underground transmission lines before plans were finalized or was it an attempt to justify construction that had already taken place. It was not until 2019, that LIPA and the DPS clarified the time line of the report and who actually prepared it. [[LIPA to EMPOA Letter](#)] [[DPS to EMPOA Letter](#)] Verification that the report was prepared after construction confirmed that the Part 102 Report was not a planning tool; and was rather used to justify the already completed construction of the overhead lines. Furthermore, LIPA states in its letter, "*The Part 102 Report was based on the SEQRA review. No additional substantive analysis was conducted for the Part 102 Report.*" "...and the information in the Part 102 Report and the SEQRA review is substantially the same." In fact, a comparison of the [SEQRA Review](#) and Part 102 Report shows a substantial difference in the degree of "analysis" and "information". The SEQRA review had **provided no analysis of overhead and underground transmission lines**; while the Part 102 Report **devoted an entire section to an analysis with new information** (See Section 4. Advantages/Disadvantages Analysis, pages 17-20 of this report). Section 4 concluded that "*the overhead transmission line demonstrates that the overhead reconductoring of the circuit has significant advantages as compared to undergrounding the circuit. Given the analysis and considerations detailed in this report, it is concluded that the proposed project should be installed as designed via overhead reconductoring.*" This unchallenged conclusion by the regulatory agencies (DPS and LIPA Board of Trustees) is at the heart of the problem. DPS and LIPA should have checked on the veracity of the "analysis"; which has proven to be flawed (fraud?).

The Part 102 Report appears deceptive. Without being dated, the report gives the impression that it was written prior to construction of the project. For example, one of its conclusions states, "... *it is concluded that the proposed project should be installed as designed via overhead reconductoring.*" This statement hides the fact that the project had already been built. In fact, nowhere in the report does it reference that the project was already completed at the time of its writing.

An example of the report's time frame being manipulated by PSEG is found in the Public Notification Section (3.9), where it is stated, "*Based on outreach to local community and businesses, no significant community opposition is expected from the Proposed Project.*" In fact, by the time the report was prepared, community opposition had been boiling over for months and PSEG was well aware of the problem. It is also noteworthy, that in this section, PSEG singled out only two public officials, Ed Romaine and Daniel Panico, as having some knowledge of the project before construction. Coincidentally, both these public officials initiated the lawsuit against PSEG and LIPA; after construction was completed. In this case, it appears that the Part 102 Report was being used to cast doubt on and possibly compromise their positions as initiators of the lawsuit.

It is obvious from the timing of the report and its content, that the Part 102 Report was not used by PSEG to analyze the option of overhead versus underground transmission lines before

construction; and to help decide which was the best option. PSEG has represented to the public that they undertook a thorough review of the options (overhead vs. underground) before construction started; **no such review was conducted.**

### **Review of Advantages/Disadvantages Analysis**

Part 102.4 describes the “items” or “categories” that must be included and discussed in the Part 102 Report’s “*Advantages/Disadvantages Analysis*” of the options of underground versus overhead transmission lines. The purpose of this Analysis is to “*provide a basis of decision*”. The following is a “category by category” review of the PSEG’s “Advantages/Disadvantages Analysis” (contained on pages 18 through 21 of the Part 102 Report). We reviewed the categories in the same order as presented by PSEG for clarity and drew mostly different conclusions; in favor of underground transmission lines. PSEG’s Analysis is included in the Appendix at the end of this document for comparison; and the entire Part 102 Draft Report is available at [Part 102 Draft Report](#).

### **Availability of Existing Corridors for Transmission Facilities (Advantage Underground)**

The first Analysis Category discussed by PSEG was the “**Availability of Existing Corridors Suitable for Transmission Facilities**”. PSEG determined that underground lines were a Disadvantage as compared to overhead lines, implying that the existing transmission line corridors (or ROWs) are less conducive to the installation of underground lines. The only rationale given for this conclusion was that burying the line “*may require 2 conductors per phase and this was not factored into the Capital Construction Cost*”. This concern has nothing to do with the adequacy of the existing corridor for burying the line, but rather expresses a concern for capital construction costs. As a result of this misplaced concern; the underground alternative was incorrectly labeled as a “Disadvantage”. In fact, when considering the drawbacks of using the existing corridor for overhead lines, the overhead lines are actually a Disadvantage.

Due to the limitations of the existing utility corridor along the roadways, there is insufficient space for the safe installation of overhead transmission lines (with the proposed concrete based steel poles). Using good engineering practice and abiding by the national and state guidelines prohibits such installations for safety reasons; and therefore the option of using overhead lines in the roadside corridors is not acceptable for this project. **The overhead line option should have received a Disadvantage rating** and the underground lines should have received the Advantage.

A good technical document to use in evaluating the safety problems with the PSEG overhead design and corridor is the [New York State Highway Design Manual](#) which “provide[s] requirements and guidance on highway design methods and policies”. Chapter 10 of the *Highway Design Manual* “*provides guidance on the issues that NYSDOT designers should take into consideration when engineering judgment is applied to roadside design.*” Key topics covered include: recognition of potential hazards, selection of clear zone widths, and selection and positioning of guide rail, terminals, and attenuators to shield potential hazards. See [Chapter 10, Highway Design Manual](#). Another good technical document that is applicable for evaluating safety problems with construction of steel poles along a highway is the [AASHTO Roadside](#)

[Design Guide](#) which provides national safety guidelines for construction along roadways such as those involved in the Riverhead to Eastport Project. Both these documents are similar in their recommendations for the placement of structures, such as steel poles, alongside highways.

In the case of the Riverhead to Eastport Project, the majority of the poles are located about 3 feet from the pavement and 13 feet from the active roadway lanes. The Highway Design Manual requires that a “clear zone” almost double the 13 feet be maintained along the roadside border. The AASHTO Guide requires basically the same “clear zone” (Table 3.1 in the document). As part of their design, the engineers for PSEG should have taken this into account and considered the inevitability of a vehicle travelling at high speed, leaving the confines of the roadway and striking one of the newly placed poles. Among other factors, they should have considered the “clear zone” along the highway and addressed alternatives to construction in a *Design Approval Document*. [Chapter 10, 10.3.2.1 of the Manual]

The LIPA Board of Trustees were formally notified of this problem at their Board meetings on July 26 and September 27, 2017, but did nothing about it; shortly thereafter, as predicted, a motorist was killed in a fiery crash into one of the wrongly placed, unprotected poles (pole #132) located in the corridor’s “clear zone” (See [Fatal PSEG Pole Crash](#) ). Subsequent to this accident another pole (pole #58) in the clear zone was hit and damaged. Furthermore, in at least one case, the placement of a new steel pole (pole #133) dangerously blocks the view of oncoming traffic; good engineering should have addressed these problems prior to construction by undergrounding the lines. **The Advantage for this category should have been underground lines.**

### **Capital Construction Costs (Undetermined Advantage)**

The second analysis category discussed by PSEG was “**Capital Construction Costs**”. PSEG determined that undergrounding the lines was a “Disadvantage”, based upon the fact that it “*will add significant costs, resulting in greater impacts on rates or reduce ability of PSEG Long Island to make additional reliability and load relief improvements*”. In other words, PSEG can put saved money to better use somewhere else. PSEG estimates that the undergrounding would cost anywhere from “\$70 to 100 million”. The problem with this estimate is that PSEG has not given a breakdown of how these costs were arrived at and has not presented any alternatives to moderate the costs of undergrounding the lines. There are alternatives that should have been considered prior to arriving at this high estimate. In one scenario that we propose, the project can be broken down into three distinct segments. The first segment runs from the Riverhead substation through a primarily wooded area to County Road 51. Since there are no traffic safety issues and no scenic or visual issues in this section, overhead lines make sense. The second section of the project runs south along the shoulder of County Road 51 to the intersection of County Road 55, through a primarily rural area known for its scenic vistas and lack of development (infrastructure). From a planning and environmental perspective, it makes sense to place the transmission lines underground in this area. The majority of the underground lines would run along side of County Road 51; and for the most part would not interfere with other underground utilities or even require paving, since the lines would be off the shoulder of the roadway. The cost for doing this segment with underground lines should have been broken out separately for consideration. Considering the



rural nature of the existing utility easement (corridor), and the lack of construction complications, it is hard to believe that the undergrounding cost would negate the known benefits. At present the true cost of undergrounding this segment of the project is unknown. The third segment of the project runs from County Road 51 to the substation on Montauk Highway along County Road 55. Undergrounding in this section is more involved since the area is more developed, but still rural in nature with limited interference from underground utilities and infrastructure. This area involves the Historic Eastport District, where maintaining the character of the area is of high priority. Based upon the lack of information and a financial analysis of the mitigating options, assigning a “Disadvantage” to underground lines is inappropriate and **the Advantage for this category should have been “Undetermined”**.

### **Construction Expense Cost (Neutral Advantage)**

There was no discussion of advantages and disadvantages in this category of the Analysis.

### **Right-of-Way Acquisition Costs (Neutral Advantage)**

There was no discussion of advantages and disadvantages in this category of the Analysis.

### **Anticipated Total Operation and Maintenance Costs (Undetermined Advantage)**

Under the “**Anticipated Total Operation and Maintenance Costs**” category, PSEG determined that underground lines were a Disadvantage, while overhead lines were rated as an Advantage. As in the **capital construction costs** category, no supporting data or references were given to substantiate the numbers used to draw the conclusions for this category. For example, in its analysis, PSEG anticipates three (3) failures in the underground lines during a 30-year period, costing \$200,000 per failure for a total anticipated cost of \$600,000 over the 30-year period. PSEG then compares this to other estimates for overhead line repair and concludes in favor of overhead lines. However, the origins or validity of the numbers used in this category are not discussed or documented in the report. How do we know they are correct? Considering the rural undeveloped nature of the area where the underground lines would be installed, it is probable that no failures would occur during the prescribed 30-year period. In rural areas such as County Road 51, underground lines would be more protected and less subject to damage than overhead lines. Considering the increased probability of no failures for underground lines, the Advantage would then go to underground lines. Likewise, using the numbers given by PSEG, and assuming even one failure, the advantage rating would be “Neutral”. Furthermore, if mitigation measures were taken, as suggested in the discussion of **capital construction costs** (which would be a combination of overhead and underground lines), the anticipated operation and maintenance costs would be different than that estimated by PSEG. Until these estimates are substantiated, **the advantage for this category should have been “Undetermined”**.

### **Technological Feasibility (Neutral Advantage)**

Under the “**Technological Feasibility**” category, advantages and disadvantages for both options were listed by PSEG. One of the disadvantages presented for the underground lines was that construction would take longer than overhead lines; however, no supporting evidence to this effect was given. It would appear that installing underground lines in an unpaved roadway



shoulder would move just as fast, if not faster than digging individual footings and pouring concrete bases and erecting over a hundred 65 to 110-foot steel poles. In addition, in the comparison, PSEG assigns a time restraint on the project, indicating that it must be completed “for the 2017 peak season”. There is no evidence that completion by “the 2017 summer season” was necessary. This appears to be an arbitrary time restriction (or crisis), which PSEG is using to justify its rush to construction and provide rationale for dismissing the underground line option and labeling it as a Disadvantage. Furthermore, PSEG “concludes that time constraints would likely eliminate undergrounding this circuit as a viable option.” As already stated, there was no evidence presented that the overhead installation would have moved any faster than if the lines were placed underground or that there were any legitimate “time constraints”. PSEG’s conclusion is unsubstantiated and for the most part appears illogical and should not be accepted as a “Disadvantage”.

In addition, PSEG raises concerns about “choosing an acceptable route (for underground lines) given existing underground facilities and thermal considerations...” The majority of the transmission lines for this project run through rural areas with minimal infrastructure interference and the technology for choosing the route is feasible. The fact that someone has to “choose a route” is not a reason to consider underground lines a “Disadvantage”. Obviously, the Historic Eastport Downtown area requires a bit more thought and planning than the open road areas, but this section is still rural in nature and has limited interference from underground utilities and infrastructure. In addition, PSEG lists the fact that third parties (such as cable companies) might have to bury their lines as a technological disadvantage. The technology for doing this is rudimentary and it is done throughout the County and State with good results; this should not be listed as a Technological Feasibility Disadvantage. PSEG also lists underground lines as a disadvantage since there would be “longer restoration times should a fault occur”. No reference or supporting data was provided to substantiate this statement. In addition, one would expect less faults to occur in underground lines, especially considering the rural environment of this project area. **This advantage for this category should have been “Neutral”.**

### **Construction Effort On Vegetated Ecological Communities (Neutral Advantage)**

Under the “**Construction Effort On Vegetated Ecological Communities**” category, PSEG determined that underground lines were a Disadvantage as compared to overhead lines. PSEG used arbitrary subjective terms to justify this rating, labeling one impact as “minor” and the other as “moderate”. There was no compelling justification given for this determination, especially if underground lines were only installed along the roadways and not through the woods (as a mitigation measure). In any event, “all ground surfaces would be restored to pre-construction condition with no permanent impacts”. **This advantage for this category should have been “Neutral”.**

### **Construction Effort on Waters, Wetlands and Floodplains (Neutral Advantage)**

Under the “**Construction Effort on Waters, Wetlands and Floodplains**” category, PSEG determined that underground lines were a Disadvantage. As previously done, PSEG labeled one impact as “minor” and the other as “moderate” to justify the difference in ratings. Considering

the fact that there are no wetlands or waters along the entire roadway route there can be no effect on wetlands. If the underground lines are limited only to the roadway sections of the project and the overhead lines are used in the wooded sections that contain wetlands, then this concern is mitigated. In any event, underground and overhead lines are both subject to NYSDEC restrictions, which is an advantage for both options, since it assures that the applicable regulations will be complied with. **The advantage for this category should have been “Neutral”.**

### **Construction Effort on Soil and Erosion (Neutral Advantage)**

Under the “**Construction Effort on Soil and Erosion**” category, PSEG determined that underground lines were a Disadvantage. As previously done, PSEG labeled one impact as “minor” and the other as “moderate” to justify the difference in ratings. The effects on soil and erosion are restricted to the construction phase and are essentially “minor” in nature for both options, especially if the underground lines are limited to the roadway sections of the project and the overhead lines are used in the wooded sections that contain wetlands. PSEG further indicated that undergrounding the lines is subject to a NYSDEC SPDES Permit and it is therefore a disadvantage. Obtaining such Permits are actually an advantage, since it assures that the applicable regulations will be complied with. In any event, *“all ground surfaces would be restored to pre-construction condition with no permanent impacts”*. **The advantage for this category should have been “Neutral”.**

### **Construction Effort on Rare, Threatened and Endangered Species (Neutral Advantage)**

Under the “**Construction Effort on Rare, Threatened and Endangered Species**” category, PSEG determined that underground lines were a Disadvantage. PSEG asserts that NYSDEC may require additional protective measures for underground lines because of salamanders. Both underground and overhead lines are subject to NYSDEC restrictions, which is an advantage for both options, since it assures that the applicable regulations will be complied with. With the mitigation plan, undergrounding lines would only take place along the roadways, where there are no wetlands or salamanders. Overhead lines would be placed in the wooded areas where wetlands and salamanders might exist, mitigating this concern for underground lines. In any event, *“there would be no permanent impacts on any of the species”*. **The advantage for this category should have been “Neutral”.**

### **Construction effort on Land Management Policies (Advantage Underground)**

Under the “**Construction effort on Land Management Policies**” category, PSEG determined that underground lines were a Disadvantage. PSEG listed both underground and overhead lines as having *“minor temporary impacts during construction”*, however, it singled out the underground line as possibly needing a *“formal Pine Barrens review”*; triggering the Disadvantage rating. Needing a review is not a compelling enough reason to warrant a Disadvantage rating; in fact, a formal pine barrens review is an advantage for the project, since it assures that the underground lines will be in conformance with the applicable regulations. Likewise, the overhead lines option is subject to possibly needing a “formal Pine Barrens

review”. Also in this category, PSEG used arbitrary subjective terms to justify its rating by asserting that underground lines would have a “*moderate temporary impact during construction*”, and the overhead pole installations would only have “*minor temporary impacts*”. There appears to be a pattern of PSEG stacking the deck against underground lines using the subjective term “**moderate**” to trigger a “Disadvantage” rating for underground lines.

**On the other hand**, in its analysis PSEG ignored the existing Land Management Policies established by the Town of Brookhaven for this area. In fact, the *2007 County Road Corridor Land Use Plan* is applicable to this project. See [County Road 51 Corridor Land Use Plan](#). The plan states its applicability to projects in the study area as follows:

*The Final CR 51 Corridor Land Use Plan presents a comprehensive land use and growth management strategy that reflects the Town of Brookhaven's and the local community's vision for the CR 51 corridor planning area...upon adoption by the Brookhaven Town Board, the CR 51 Corridor Land Use Plan will guide future actions by the Town of Brookhaven, **other governmental agencies**, property owners and developers. Specifically, the plan prioritizes “maintaining the rural nature and scenic farmland vistas of the corridor” (p. 51).*

Since the project is in the Plan’s study area, it is subject to the Land Use Plan and its findings. The Plan’s “Guiding Principles” include:

- *Maintain the rural nature and scenic farmland vistas of the corridor planning area.*
- *Achieve site design that is compatible with the natural landscape and the historic character of the Eastport and East Moriches communities.*
- *Provide a safe and convenient traffic corridor (p. 4).*

PSEG’s project design (using overhead lines) does not take into account any of these principles or criteria; however, underground lines would be in harmony with the plan. As a result, overhead lines should be rated as a Disadvantage and underground lines as an Advantage. **The Advantage for this category should have been underground lines.**

### **Relative Visual Impact on Surrounding Land Uses (Advantage Underground)**

Under the “**Relative Visual Impact on Surrounding Land Uses**” category, PSEG determined that overhead lines were a Disadvantage. However, PSEG asserts that “*No significant adverse visual impacts are anticipated as a result of the proposed project.*” PSEG has acknowledged that the overhead lines involve the installation of significantly more, larger and taller steel poles; however, they then concluded that the poles “*will have minimal impact on the view sheds*”. Besides being illogical, this conclusion has proved to be wrong in reality, and the visual effects have been condemned by all the affected municipalities, environmentalists, civic associations and residents. See the link [Eastport Meeting Video](#) for a synopsis of the communities concerns and its reaction to the overhead lines. As a result of these concerns, PSEG offered to remove the steel poles and underground the transmission lines in Eastport (See [PSEG Offer](#)). As part of their analysis, PSEG used “simulated” photographs to create “before” and “after” comparisons; however, they only compared overhead lines to existing conditions and did not show simulations for the underground lines. This is unfortunate, because if PSEG had properly conducted the

comparison and simulation, it would have demonstrated the tremendous benefit that the underground lines would have provided to the region. In fact, according to **Dan Eichhorn** (President of PSEG-LI), PSEG's policy is "...*when we go into an area, we want to leave it the same or better than when we went in.*"; the steel poles in the overhead option will not do this. Since the analysis was supposed to be a comparison of overhead versus underground, one has to question why undergrounding was not included in the simulation. Regardless, the simulations that PSEG had done were inaccurate, misrepresented and misinterpreted by PSEG. The "after" photographs did not show the true nature of the impacts. The new steel poles dwarfed the older wood poles and created a tremendous visual impact; changing the character of the region and certainly not improving it. **The Advantage for this category is underground lines.**

### Availability of ROW for Other Uses (Neutral Advantage)

Under the "**Availability of ROW for Other Uses**" category, PSEG determined that underground lines were a Disadvantage. This category [according to Part 102.4(b)(9)] concerns itself with the availability of a ROW (i.e., utility easement, corridor) to be used for *other uses such as "parks, recreation, farming, transportation"*. The rationale for PSEG giving underground lines a Disadvantage rating is misplaced. PSEG states that underground lines are a disadvantage because of "*Access to manholes for maintenance and repair will impact traffic flow.*" Traffic flow has nothing to do with the "availability of the ROW for other uses" and it is not germane to this category. In any event, since the majority of the underground lines would be in the shoulder of the roadway, manholes will not affect traffic on County Road 51. If PSEG plans the underground lines properly in the Historic District of Eastport, manholes can be located so as not to interrupt traffic. [Interestingly, misplaced poles in the Historic District have already disrupted ingress and egress to at least one business.] Regardless, traffic flow issues do not belong in this category and neither overhead lines nor underground lines will affect the availability of the ROW for other uses such as "parks, recreation, farming, transportation". **The advantage for this category should have been "Neutral".**

### Discussion of Results

In total, PSEG analyzed thirteen (13) "Categories" of concern (as specified in 16NYCRR Part 102.4); and compared the options of installing the transmission lines overhead or underground. In their analysis, PSEG determined that in ten (10) of the categories, the overhead lines had a distinct Advantage. In one category the underground option was given an Advantage and two (2) of the categories were designated to be Neutral (not favoring overhead or underground). According to PSEG overhead lines had the advantage, 10 to 1; with 2 Neutral.

On the other hand, we reviewed the same thirteen (13) "Categories" and drew different conclusions that favored the underground options (with a proposed mitigation plan). In our analysis the underground installation was determined to have an Advantage in three (3) of the categories. Eight (8) of the other categories were determined to be "Neutral". Two (2) of the categories were labeled "Undetermined", since they lacked supporting documentation necessary to make a decision (these were the **Capital Construction Costs** and **Operation and Maintenance Costs** categories). According to our analysis, underground lines had the advantage,

3 to 0, with 8 Neutral and 2 Undetermined. [If the statements in the two undetermined categories are substantiated, then the score would be 3 to 2, still in favor of the underground line option (with a mitigating plan).] As discussed in the **Capital Construction Cost** category, in order to address the environmental and cost concerns raised in the analysis, a mitigation plan should be considered that would include overhead lines in the wetland sensitive areas (woods) and underground lines in the roadway corridor, to address the traffic safety issues and scenic impacts.

## Conclusions

This report reviewed and analyzed the Part 102 Draft Report for the project known as the Riverhead to Eastport Reconductoring Project. EMPOA's report included a review of the potential impacts to hydrology and surface waters, groundwater, floodplains, ecological communities, rare, threatened and endangered species, land use and zoning, agricultural lands, historic resources, visibility and visual characteristics, traffic as presented by PSEG.

PSEG submitted its Part 102 Report to the DPS on July 17, 2017; approximately two weeks after construction of the steel poles and transmission lines were completed. DPS conducted an investigation because of complaints from public officials and the affected communities. Contrary to the findings of DPS, a comparison of the *"processes" that were followed by LIPA* and those required by an investor-owned utility indicated that LIPA and PSEG did not *"follow the process required of an investor-owned utility pursuant to Part 102"*. In comparison, the SEQRA review, that LIPA and DPS relied on, **provided no analysis of overhead and underground transmission lines**; while the Part 102 Report **devoted an entire section to such an analysis** (albeit flawed). This further confirmed the deficiency of the *"processes"* used by LIPA as compared to the *processes* of Part 102.

As per EMPOA's findings, **overhead transmission lines have had significant adverse impacts** on the Eastport Region. Based on our analysis **underground transmission lines have significant advantages**; and undergrounding the lines would have mitigated most of the impacts associated with the use of overhead transmission lines. Furthermore, we identified the advantages of using overhead lines in the more environmentally sensitive areas (woods and wetlands) and using underground lines along the roadways for safety concerns and mitigation of visual impacts.

Furthermore, in the Part 102 Report, PSEG failed to identify any of the known *"significant adverse impacts"* for the overhead lines and did not address any mitigation measures; the PSEG report was determined to be deficient in this respect. If PSEG had done the analysis properly, PSEG would have identified the *significant adverse impacts*, including impacts on traffic safety, land use policies, the historic district and visual impacts. As part of their analysis, PSEG used "simulated" photographs to create "before" and "after" comparisons; however, they only compared overhead lines to existing conditions and did not show simulations for the underground lines. If PSEG had properly conducted the comparison and simulation, it would have demonstrated the tremendous benefit that the underground lines would have provided to the region. The Report did not present any mitigation measures to address these concerns or to improve any pre-existing visual or safety concerns (i.e., the existing wooden poles).

It appeared, based on the presentations in the Part 102 Report, that the preparers were biased against underground lines and had manipulated the analysis to justify the already completed construction of overhead lines. This Part 102 Report was never released to the public for review or comment prior to construction, since it was not prepared until after construction was completed. If it had been prepared before construction and made available to the public, the flaws in the design and could have been identified and corrected before construction. The failure in this review and approval process has resulted in a multi-million-dollar mistake which has created a safety hazard and damaged the Eastport Region. This failure warrants a complete investigation and rebuke of LIPA and PSEG LI.

[For further information and other insights on this refer to the EMPOA “*Report on the LIPA and PSEG Riverhead to Eastport Reconductoring Project*” (See [PSEG 2018 Report/Investigation](#))

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## Appendix

### 4. Advantages/Disadvantages Analysis

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The following table analyzes the advantages and disadvantages of the overhead and underground options for this transmission line.

Analysis Category	Overhead (As Designed)	Underground Alternative
Availability of Existing Corridors Suitable for Transmission Facilities	<b>Advantage:</b> Existing 69kV OH corridor is available for reconductoring. No additional easements, land purchases or right of ways required.	<b>Disadvantage:</b> LIPA owned right of way is available for north of CR 51. Pending detailed design, burying this 69kv line may require 2 conductors per phase so heat can be adequately dissipated. This concern is not factored into the Capital Construction Costs
Capital Construction Costs	<b>Advantage:</b> \$32 Million. Cost of overhead construction significantly cheaper than underground alternative. Costs to be spread across entire customer base and provides consideration for low income and rate sensitive customers.	<b>Disadvantage:</b> \$70 - \$100 Million Undergrounding transmission line will add significant costs, resulting in greater impact on rates or reduce ability of PSEG Long Island to make additional reliability and load relief improvements.
Construction Expense Costs	<b>Neutral:</b> \$0	<b>Neutral:</b> \$0
Right-of-way Acquisition Costs	<b>Neutral:</b> \$0	<b>Neutral:</b> \$0
Anticipated Total Operation and Maintenance Costs	<b>Advantage:</b> \$185,000 (30 Year) Estimated on average three (3) OH transmission repairs every 10 years for a 7-mile transmission line. Approximately \$15k per transmission repair x 9 repairs = \$135k. Tree and ROW maintenance of approximately \$5k every 3 years for total \$50k. Total over 30 years \$135k + \$50k = \$185k.	<b>Disadvantage:</b> \$600,000 (30 Year) Estimated on average of one cable repair every 10 years due to dig-ins or failures for a 7 mile cable. UG repair cost of \$200k per repair with 3 repairs over 30 years for a total \$600k.
Technological Feasibility	<b>Advantage:</b> In order to address the reliability needs in a timely fashion, overhead transmission is	<b>Advantage:</b> Transmission not being prone to extreme weather events.

	<p>preferred as it reduces the risk to exposure as it can be completed in a shorter timeframe. Overhead circuits have shorter restoration times should a fault occur.</p> <p><b>Disadvantage:</b> Challenges include unconsolidated soils requiring the need for concrete reinforcement, areas of steep slopes and topographical changes that require unique solutions, property rights issues, meeting applicable ampacity requirements, and road crossings with large spans which require additional support.</p>	<p><b>Disadvantage:</b> Time needed for underground construction would not meet needs for 2017 peak season. Generators would be required to ensure continuity of service. Time constraints would likely eliminate undergrounding this circuit as a viable option.</p> <p>Choosing an acceptable route given existing underground facilities and thermal considerations, substation modifications to accommodate the underground terminals.</p> <p>Eastport Substation does not currently have sufficient capability for an underground riser.</p> <p>Longer restoration times should a fault occur.</p> <p>Need for distribution pole line would remain for third party attachments and distribution infrastructure that currently exist on the transmission structures.</p>
Construction effort on Vegetated/ Ecological Communities (Successional old field and mowed lawn areas within existing ROW)	<p><b>Advantage:</b> Minor temporary impacts during construction – disturbance for pole installations and removals. All ground surfaces will be restored to pre-construction condition. Tree trimming at locations along the road shoulder ROW may be required but are minimal.</p> <p>No permanent impacts</p>	<p><b>Disadvantage:</b> Moderate temporary impacts during construction but more intrusive than overhead construction. All ground surfaces will be restored to pre-construction condition. Tree trimming at locations along the road shoulder ROW may be required but are minimal.</p> <p>No permanent impacts</p>
Construction effort on Waters, Wetlands and	<p><b>Advantage:</b> Minor temporary impacts during construction –</p>	<p><b>Disadvantage:</b> Moderate temporary impacts during</p>



Floodplains (Freshwater wetland pocket within vegetated ROW)	<p>disturbance for pole installations and removals within the wetland adjacent area and floodplain Zone A. However, best management practices will be followed and all ground surfaces will be restored to pre-construction condition. Construction activities authorized under NYSDEC PSEGLI General Permit.</p> <p>No permanent impacts.</p>	<p>construction if trenched through wetland. If trenched, a NYSDEC Individual Wetlands Permit would be required with restoration and monitoring.</p> <p>Minor temporary impacts during construction if HDD installation at bore and receiving pit locations are within wetland adjacent area and floodplain Zone A.</p> <p>No permanent impacts.</p>
Construction effort on Soil and Erosion	<p><b>Advantage:</b> Minor temporary impacts during construction – disturbance for pole installations and removals. However, best management practices will be followed and all ground surfaces will be restored to pre-construction condition.</p> <p>No permanent impacts.</p>	<p><b>Disadvantage:</b> Moderate temporary impacts during construction if trenched. However, best management practices will be followed and all ground surfaces will be restored to pre-construction condition. Minor temporary impacts during construction if HDD installation at bore and receiving pit locations.</p> <p>If trenched, a NYSDEC SPDES Permit and Stormwater Pollution Prevention Plan would be required.</p> <p>No permanent impacts.</p>
Construction effort on Rare, Threatened and Endangered Species (Could occur within the vicinity: Tiger salamander, Northern Long-eared Bat)	<p><b>Advantage:</b> No impacts to bats as no trees will be removed. NYSDEC consultation concluded that silt fence around the wetland pocket would protect Tiger salamanders during construction activities. Proper management practices will be implemented during construction to avoid impacts to other listed species known in the vicinity.</p>	<p><b>Disadvantage:</b> NYSDEC may require additional protective measures and an Environmental Monitor if trenching in the salamander buffer area. No impacts to bats as no trees will be removed. NYSDEC consultation concluded that silt fence around the wetland pocket would protect Tiger salamanders during construction activities.</p>

	No permanent impacts to any of the species.	No permanent impacts to any of the species.
Construction effort on Land Management Policies (Central Pine Barrens)	<p><b>Advantage:</b> Minor temporary impacts during construction – disturbance for pole installations and removals.</p> <p>No permanent impacts</p>	<p><b>Disadvantage:</b> Moderate temporary impacts during construction if trenched. May require formal Pine Barrens Commission review.</p> <p>Minor temporary impacts during construction if HDD installation at bore and receiving pit locations.</p> <p>No permanent impacts</p>
Relative Visual Impact on Surrounding Land Uses (Parks, Historic, Farmland, Commercial, Institutional, Residential)	<p><b>Disadvantage:</b> Minor temporary impacts during construction. No significant adverse visual impacts are anticipated as a result of the proposed project. Although heights of poles and the material type would change along the project route, the essential character of the route would not change due to the presence of the existing transmission line. In view of this, the change in the pole material and height will have minimal impact on the viewsheds. Additionally, the presence of mature vegetation and existing structures serve to further blend the proposed poles with the surrounding environment. As such, only minimal changes will occur to existing viewsheds.</p>	<p><b>Advantage:</b> No long term impacts. Minor temporary impacts during construction.</p>
Relative Availability of ROW for other uses	<p><b>Advantage:</b> No change to current ROW uses</p>	<p><b>Disadvantage:</b> Access to manholes for maintenance and repair will impact traffic flow. No change in availability for road shoulder ROW use. Vegetated ROW would still require management for existing towers access and maintenance.</p>