



Citizen Input Regarding the
Proposed Eastern System
Upgrade Project
Analysis of Comments to the
Federal Energy Regulatory
Commission

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Delaware Riverkeeper Network

Prepared by:

Sonia Wang



Research and strategy for the land community.

keylogeconomics.com



delawariverkeeper.org

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Authors' Note

Key-Log Economics is grateful to have had the opportunity to conduct this independent analysis with the help of Delaware Riverkeeper Network. We owe a special thanks to the volunteers who gave their time reviewing comment letters. Without their effort this review would not have been possible.

Cover Photo from Mark Egan

Policy Setting

The Eastern System Upgrade project (“ESU”) is a multi-part project intended to expand the capacity of the existing Millennium Pipeline in New York State. The project includes construction of approximately 7.8 miles of 30- and 36-inch pipeline loop in Orange County, construction and operation of a new compressor station (“the Highland Compressor Station” or “Highland CS”) in Sullivan County, an additional compressor at the existing Hancock Compressor Station (“Hancock CS”) in Delaware County, modifications to the existing Ramapo Meter and Regulator station in Rockland County, and additional pipeline appurtenant facilities at the existing Huguenot Meter Station and Westtown Meter Station in Orange County.

Millennium Pipeline Company, L.L.C (“Millennium LLC”) would be in charge of the construction and operation of the project and is seeking authorization from the Federal Energy Regulatory Commission (“FERC”). FERC’s review process for the project began when Millennium LLC requested use of FERC’s National Environmental Policy Act (“NEPA”) Pre-Filing Process. Under the National Environmental Policy Act, FERC must consider the environmental effects of its decision. Those effects include impacts on air and water quality, aesthetic value, wildlife, and others, as well as how changes in the physical environment are reflected in effects on people, including through changes in economic well-being.

After FERC formally approves Millennium LLC’s NEPA Pre-Filing Process, project review begins. FERC participated in an open house held by Millennium LLC and then issued a Notice of Intent announcing that they would prepare an Environmental Assessment (“EA”), which determines whether or not a federal action has the potential to cause significant environmental effects.

A key part of the NEPA process is “scoping” or “a scoping period,” during which any person with an interest in the proposed federal action (in this case approval or denial of the ESU project) has a chance to tell the lead agency (FERC) what concerns them about the proposed action and what they think the lead agency should include in its ensuing environmental review. FERC is obligated to consider this citizen input in its Environmental Assessment (“EA”).

Before the EA was released citizens, public and private interest organizations, and experts in many fields had the opportunity to review, respond to, and comment on Millennium LLC’s filing. The public provided input in the form of written letters, entries to FERC’s online eComment site, and petitions circulated by groups for or against the proposed project. FERC is expected to consider this input as it revises its analysis and prepares the EA.

Between the pre-filing process, scoping period, and the release of the EA, FERC received hundreds of comments. They took the form of unique letters and eComments composed by individuals and organizations, form letters submitted with or without modification by individuals, and petitions, in the form of a single comment signed by many individuals.

Key-Log Economics, with the help of Delaware Riverkeeper Network, has completed an independent analysis of the written comments. These comments include excellent information about the economic and other effects that citizens, scientific experts, and various stakeholders expect to see, or are already seeing, as a result of the proposed Eastern System Upgrade Project.

The content of these letters is critically important for two reasons.

- First, the letters provide direct and clear information about the issues of concern to the people and communities which the project would impact as well as to people who, as visitors, downstream water users, business owners, and others, use and enjoy the directly affected landscape. Combined with our review of existing economic studies and with our analysis of primary and secondary data on property values, human

health and safety, the social cost of carbon, and economic development trends, the comment letters help FERC understand the nature and extent of the effects of the proposed project.

- Second, under the National Environmental Policy Act, FERC must consider the comments it has received as it follows the NEPA process. FERC must cover relevant issues raised in comments, and this independent review of what citizens have said in public comments will help ensure that FERC's legal obligations to consider the full range of environmental effects of the proposed project are met.

Methods

For this report, we analyzed 414 of the of the 527 publically available comments posted to both the ESU pre-filing docket, PF15-3, and the official ESU project docket, CP15-486, from January 19th, 2016 (when the pre-filing docket was established) through April 18th, 2017.¹

In total, our analysis covers different written messages to FERC. The messages are of three types.

1. 321 individual or unique comment letters or eComments.
2. 92 copies of 16 different form letters.
There were between 2 and 30 copies of each form letter.
3. 1 petition with a total of 8 signatures.

See also “Comment Type and Commenter Location” graph under “Results.”

To review this volume of communication, we used crowdsourcing—that is, we enlisted the help of a crowd of volunteers to complete the task via the internet. Our crowd consisted of 11 volunteers recruited by Delaware Riverkeeper Network. Each of these volunteers reviewed at least one comment.

The reviewers' specific task was to read through the comment letter and log details from the comment using an online form. Concerns expressed in the comments included the economy, larger energy related questions, the environment, lifestyle factors, and systemic issues. The form also included space where volunteers could record commenters' thoughts on items not covered elsewhere on the form. (A copy of the form is included as Appendix A.) For each concern, the form asks whether the commenter views the proposed ESU project as likely to have a positive or negative effect. In addition, we asked reviewers to rate how strongly positive or negative each commenter felt the effects would be in several overarching areas: economy; U.S. energy needs; environment; and lifestyle/quality of life.

Once the form was set up, our process, in brief, consisted of the following steps:

1. Download all comment letters.
2. Send a batch of three comment letters to each volunteer along with instructions (see Appendix B) and a link to the online form.
3. Monitor the database linked to the online form and send reminders to volunteers who seemed to have missed the initial email.
4. Send new batches to volunteers who requested them via a prompt that appeared after submitting previous comments using the online form.

¹ People continued to submit comments after April 18th, however, this time frame was chosen by Delaware Riverkeeper Network as a way of managing the tasks of downloading and distributing comment letters for review. We do not think there is reason to expect that comments submitted in this (or any) window are any more or less likely to favor the proposal.

FERC received comments that varied widely in length, technicality, and the main concerns addressed. They also came from commenters residing or owning property in one of the three counties the project would impact², other counties in New York State, and from other states. We were therefore able to stratify the comments according to commenters' location as well as summarize the various concerns raised by people living nearer to and farther from the proposed project components.

Based on previous analysis Key-Log Economics conducted for the Atlantic Coast Pipeline and the PennEast Pipeline, we identified dozens of individual factors grouped into four broad categories of economy, energy, environment, and lifestyle. The environment category, for example, includes factors such as geologic hazards, erosion, surface water (streams/rivers/lakes), and wetlands, to name a few. For each category, the form asks [for example] "Does the commenter mention any of the following environmental factors that they say will be impacted either positively or negatively if the Eastern System Upgrade Project is permitted?" For each factor in the category the reviewer would indicate whether the comment letter writer indicated that the factor would be affected positively or negatively, or that the factor had not been mentioned at all. Some comment letters mention many issues while others mention only one.

After the economy, energy, environment, and lifestyle section, the form includes questions of the form "Overall how does the commenter think the Eastern System Upgrade Project will affect the environment? Please leave blank if they seem to have no opinion."³ For comment letters that did indicate an opinion on the category, the reviewer registered the direction and strength of that opinion on a 1-5 Likert scale with 1 being "Extremely Negatively" and 5 being "Extremely Positively."

We also asked reviewers if the comment mentioned environmental justice positively or negatively. A further section provided space to record commenters' concerns over general or systemic issues such as cumulative impacts or the purpose and need for the project.

Additionally there was a question that asked "What is the desired outcome of the commenter?" We provided choices of "Eastern System Upgrade Project is built," "Eastern System Upgrade Project is not built," "Unstated/Unsure", and "Other." There was also a question that asked the reviewer "Overall what is the comment's attitude toward the proposed Eastern System Upgrade Project?" The reviewer was asked to again use the 1-5 Likert scale.

Reviewers aided Key-Log's broader research by answering the question "In your opinion, does this comment letter include a good personal story/testimony that illustrates one or more of the following effects?" The effects included ecosystem services, human health and safety, property values, community services, and attractiveness of the community/region. Details into the results of this research into the economic costs of the proposed Eastern System Upgrade can be found on Delaware Riverkeeper Network's website.⁴

The form concludes with space to record references to statistical or other data cited by the commenter, a free-response question for any other items not covered elsewhere in the form, and lastly, the reviewer's judgement regarding whether the comment appeared to be a form letter or a petition, as opposed to an individual letter. (Please see Appendix A for the full form.)

One final note is that some individual comment letters were particularly lengthy and/or technical. We kept that segment out of the pool for volunteer review and assigned their review to an expert reviewer.

² These are Delaware, Sullivan, and Orange County in New York State.

³ The energy question was phrased slightly differently: "Overall, does the commenter think the ESU project will help meet an identified US energy need?"

⁴ Direct link: http://www.delawariverkeeper.org/sites/default/files/EconomicCostsOfTheESU_FINAL_201704.pdf

Reviewing the Reviewers

Another important role for our team was to evaluate the volunteers' review of comment letters. To accomplish that, we selected 20 (10%) of the individual comment letters at random and assigned a team member to review those letters from scratch. We then compared the team member's review to that of the volunteer who had previously reviewed the same letter. We found that the reviews by volunteers and by our team agreed in nearly all cases and nearly all aspects.

For almost 70% of our sample, our team found either no differences or few differences compared to the review completed by a volunteer. For an additional 15% of our sample, our team found some differences, and for the last 15% we found many differences.

"Few differences" was defined as 1 to 3 differences; "some differences" was defined as 4 or 5 differences; "many differences" was defined as 6 or more differences. Our team did not count trivial differences between volunteer and team member's reviews. An example of a trivial difference would be if the volunteer reviewer had inferred a concern for "forests" from a letter that mentions environmental, habitat, or landscape impacts but where the commenter had not specifically said "forests," per se. An example of a non-trivial difference would be if the volunteer review indicated that a letter mentioned negative or positive effects on forests but our team review of the comment letter found no evidence of the same opinion.

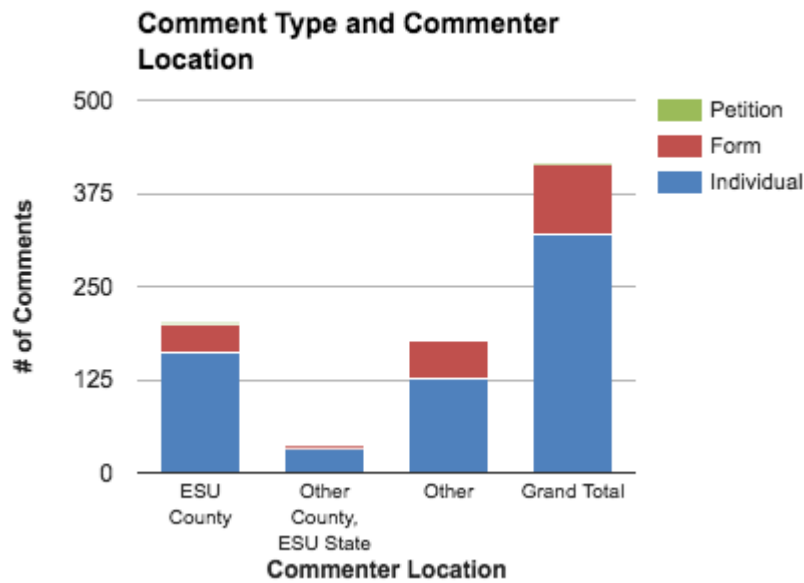
For the reviews where we found many differences between our comment analysis and that of a volunteer, our team pulled all of that volunteer's reviews and examined them for any signs of systematic bias, such as a judgement by the reviewers in question that every comment they reviewed expressed a concern that the pipeline would have either a positive or a negative effect. We found no evidence of such bias, and we are therefore confident that the volunteers' review provided information that is thorough, complete, and reliable as a characterization of commenters' concerns and opinions.

Results

Based on the information from the comment letters, we can stratify comments according to the commenters' location (or the location of their property) in an ESU county ("ESU County"), another county in New York ("Other County, New York"), and other states ("Other") (See "Comment Type and Commenter Location").

The results reported here include all types of comments submitted to FERC (i.e. individual, form, and petition).⁵

⁵ A petition is counted as a single comment.



Note: Each individual letter, each form letter, and the petition is counted as one comment. However, the petition was signed by more than one person, and some of the individual and form letters were signed by more than one person (a husband and wife, or a pair of business partners, for example).

Of the comments received as individual/unique comments, some 50% came from commenters in ESU-impacted counties.

For any given issue, our analysis considers only those comments that mention the issue. Therefore, the base for all percentages of comments expressing a particular view about the effect of the Eastern System Upgrade Project in the issue area (positive or negative) is total number of comment letters that mentioned the issue. We do not, in other words, count comment letters that are silent on the issue in the percentage calculations.

FERC’s Notice of Intent to prepare an Environmental Assessment regarding the Eastern System Upgrade Project¹ includes a list of impacts that could result from the project. Not surprisingly, many commenters addressed these issues directly or indirectly. Our survey included the issues identified by FERC as well as many others. The following charts display the number of letters in which the commenter mentions a FERC/NOI-defined issue as well as whether, in the commenter’s judgement, the Eastern System Upgrade project would have a positive or negative impact on the issue. Furthermore, each chart provides separate subtotals of the number of comments from residents of ESU-impacted counties, other counties in New York State, and other states.

Each chart answers a question with the same formatting as “How do citizens believe the Eastern System Upgrade Project would affect the environment” (or “...surface water,” “...air quality,” etc.). As the charts indicate, the vast majority of commenters that mentioned these issues believe there will be negative impacts if the Eastern System Upgrade Project is approved. Across the 12 categories, between 92.3% and 99% of the comments express a concern that the Eastern System Upgrade Project would have a negative impact on the critical issues.⁶

⁶ The Notice of Intent also asked about “Cumulative Impacts.” Only 9 out of the 414 comments mentioned this topic, and we did not collect data on whether or not the commenter believed the Eastern System Upgrade Project would have a positive or negative impact. We therefore do not include a graph of these results below.

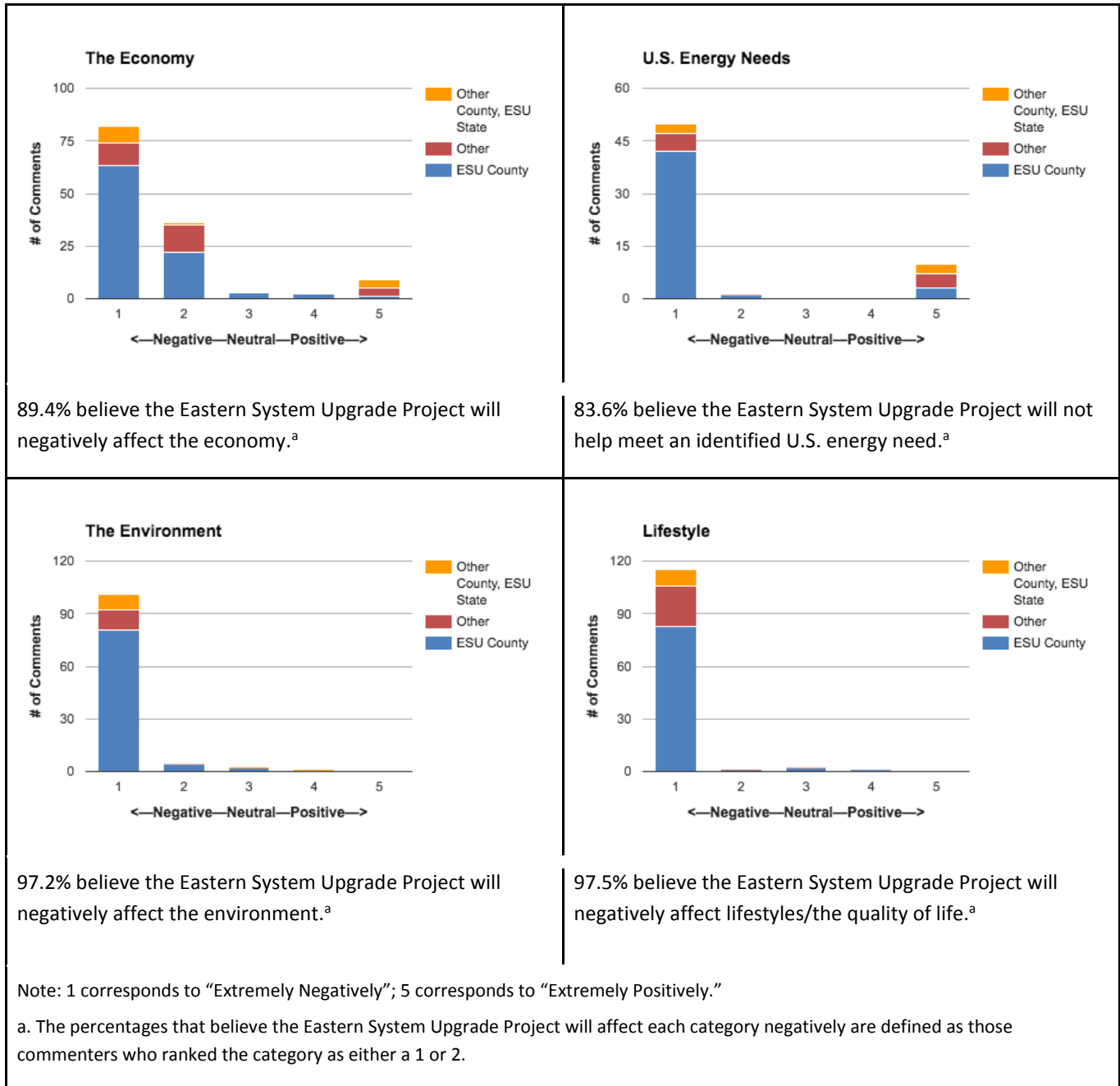
<p>How Would the ESU Affect Geology and Soils?</p> <table border="1"> <caption>Data for: How Would the ESU Affect Geology and Soils?</caption> <thead> <tr> <th>Commenter Location</th> <th>Positively</th> <th>Negatively</th> </tr> </thead> <tbody> <tr> <td>ESU County</td> <td>0</td> <td>75</td> </tr> <tr> <td>Other County, ESU State</td> <td>5</td> <td>5</td> </tr> <tr> <td>Other</td> <td>5</td> <td>10</td> </tr> </tbody> </table>	Commenter Location	Positively	Negatively	ESU County	0	75	Other County, ESU State	5	5	Other	5	10	<ul style="list-style-type: none"> • FERC category: “Geology and Soils” • This graph represents a combination of answers to our survey question about effects on geologic hazards and effects on soils. • 97% mention negative impacts.
Commenter Location	Positively	Negatively											
ESU County	0	75											
Other County, ESU State	5	5											
Other	5	10											
<p>How Would the ESU Affect Land Use?</p> <table border="1"> <caption>Data for: How Would the ESU Affect Land Use?</caption> <thead> <tr> <th>Commenter Location</th> <th>Positively</th> <th>Negatively</th> </tr> </thead> <tbody> <tr> <td>ESU County</td> <td>0</td> <td>90</td> </tr> <tr> <td>Other County, ESU State</td> <td>5</td> <td>5</td> </tr> <tr> <td>Other</td> <td>5</td> <td>15</td> </tr> </tbody> </table>	Commenter Location	Positively	Negatively	ESU County	0	90	Other County, ESU State	5	5	Other	5	15	<ul style="list-style-type: none"> • FERC category: “Land Use” • 96.8% mention negative impacts.
Commenter Location	Positively	Negatively											
ESU County	0	90											
Other County, ESU State	5	5											
Other	5	15											
<p>How Would the ESU Affect Water?</p> <table border="1"> <caption>Data for: How Would the ESU Affect Water?</caption> <thead> <tr> <th>Commenter Location</th> <th>Positively</th> <th>Negatively</th> </tr> </thead> <tbody> <tr> <td>ESU County</td> <td>0</td> <td>90</td> </tr> <tr> <td>Other</td> <td>2</td> <td>33</td> </tr> <tr> <td>Other County, ESU State</td> <td>2</td> <td>5</td> </tr> </tbody> </table>	Commenter Location	Positively	Negatively	ESU County	0	90	Other	2	33	Other County, ESU State	2	5	<ul style="list-style-type: none"> • FERC category: “Water Resources” • This graph represents a combination of answers to our survey question about effects on surface water (streams/rivers/lakes) and groundwater (including wells and springs). • 98.6% mention negative impacts.
Commenter Location	Positively	Negatively											
ESU County	0	90											
Other	2	33											
Other County, ESU State	2	5											

<p>How Would the ESU Affect Fisheries?</p> <p>This stacked bar chart displays the number of comments for three commenter locations: ESU County, Other County, ESU State, and Other. The y-axis represents the number of comments, ranging from 0 to 80. The legend indicates that blue represents 'Positively' and red represents 'Negatively'. For ESU County, there are approximately 60 negative comments and 0 positive comments. For Other County, ESU State, there are approximately 5 negative comments and 0 positive comments. For Other, there are approximately 5 negative comments and 2 positive comments.</p> <table border="1"> <thead> <tr> <th>Commenter Location</th> <th>Positively</th> <th>Negatively</th> </tr> </thead> <tbody> <tr> <td>ESU County</td> <td>0</td> <td>60</td> </tr> <tr> <td>Other County, ESU State</td> <td>0</td> <td>5</td> </tr> <tr> <td>Other</td> <td>2</td> <td>5</td> </tr> </tbody> </table>	Commenter Location	Positively	Negatively	ESU County	0	60	Other County, ESU State	0	5	Other	2	5	<ul style="list-style-type: none"> • FERC category: “Fisheries” • 98.6% mention negative impacts.
Commenter Location	Positively	Negatively											
ESU County	0	60											
Other County, ESU State	0	5											
Other	2	5											
<p>How Would the ESU Affect Wetlands?</p> <p>This stacked bar chart displays the number of comments for three commenter locations: ESU County, Other County, ESU State, and Other. The y-axis represents the number of comments, ranging from 0 to 80. The legend indicates that blue represents 'Positively' and red represents 'Negatively'. For ESU County, there are approximately 70 negative comments and 0 positive comments. For Other County, ESU State, there are approximately 5 negative comments and 2 positive comments. For Other, there are approximately 15 negative comments and 3 positive comments.</p> <table border="1"> <thead> <tr> <th>Commenter Location</th> <th>Positively</th> <th>Negatively</th> </tr> </thead> <tbody> <tr> <td>ESU County</td> <td>0</td> <td>70</td> </tr> <tr> <td>Other County, ESU State</td> <td>2</td> <td>5</td> </tr> <tr> <td>Other</td> <td>3</td> <td>15</td> </tr> </tbody> </table>	Commenter Location	Positively	Negatively	ESU County	0	70	Other County, ESU State	2	5	Other	3	15	<ul style="list-style-type: none"> • FERC category: “Wetlands” • 97% mention negative impacts.
Commenter Location	Positively	Negatively											
ESU County	0	70											
Other County, ESU State	2	5											
Other	3	15											
<p>How Would the ESU Affect Cultural Resources?</p> <p>This stacked bar chart displays the number of comments for three commenter locations: ESU County, Other County, ESU State, and Other. The y-axis represents the number of comments, ranging from 0 to 30. The legend indicates that blue represents 'Positively' and red represents 'Negatively'. For ESU County, there are approximately 28 negative comments and 1 positive comment. For Other County, ESU State, there are approximately 1 negative comment and 1 positive comment. For Other, there are approximately 6 negative comments and 1 positive comment.</p> <table border="1"> <thead> <tr> <th>Commenter Location</th> <th>Positively</th> <th>Negatively</th> </tr> </thead> <tbody> <tr> <td>ESU County</td> <td>1</td> <td>28</td> </tr> <tr> <td>Other County, ESU State</td> <td>1</td> <td>1</td> </tr> <tr> <td>Other</td> <td>1</td> <td>6</td> </tr> </tbody> </table>	Commenter Location	Positively	Negatively	ESU County	1	28	Other County, ESU State	1	1	Other	1	6	<ul style="list-style-type: none"> • FERC category: “Cultural Resources” • 92.3% mention negative impacts.
Commenter Location	Positively	Negatively											
ESU County	1	28											
Other County, ESU State	1	1											
Other	1	6											

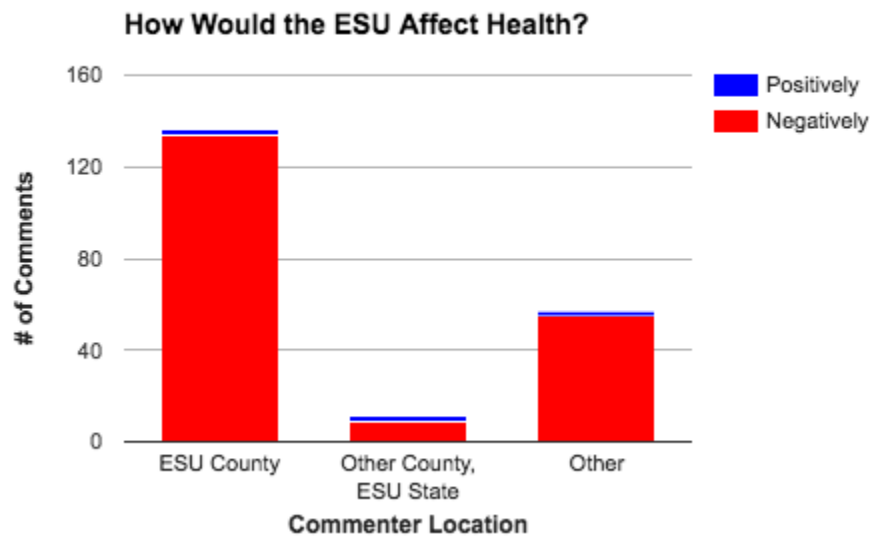
<p>How Would the ESU Affect Vegetation?</p> <p>This stacked bar chart displays the number of comments for three commenter locations: ESU County, Other County, ESU State, and Other. The y-axis represents the number of comments, ranging from 0 to 100. The legend indicates that blue represents 'Positively' and red represents 'Negatively'. For ESU County, there are approximately 75 negative comments and 0 positive comments. For Other County, ESU State, there are approximately 5 positive and 5 negative comments. For Other, there are approximately 10 positive and 10 negative comments.</p> <table border="1"> <thead> <tr> <th>Commenter Location</th> <th>Positively</th> <th>Negatively</th> </tr> </thead> <tbody> <tr> <td>ESU County</td> <td>0</td> <td>75</td> </tr> <tr> <td>Other County, ESU State</td> <td>5</td> <td>5</td> </tr> <tr> <td>Other</td> <td>10</td> <td>10</td> </tr> </tbody> </table>	Commenter Location	Positively	Negatively	ESU County	0	75	Other County, ESU State	5	5	Other	10	10	<ul style="list-style-type: none"> • FERC category: “Vegetation” • 97% mention negative impacts.
Commenter Location	Positively	Negatively											
ESU County	0	75											
Other County, ESU State	5	5											
Other	10	10											
<p>How Would the ESU Affect Wildlife?</p> <p>This stacked bar chart displays the number of comments for three commenter locations: ESU County, Other County, ESU State, and Other. The y-axis represents the number of comments, ranging from 0 to 100. The legend indicates that blue represents 'Positively' and red represents 'Negatively'. For ESU County, there are approximately 85 negative comments and 0 positive comments. For Other County, ESU State, there are approximately 5 positive and 5 negative comments. For Other, there are approximately 10 positive and 30 negative comments.</p> <table border="1"> <thead> <tr> <th>Commenter Location</th> <th>Positively</th> <th>Negatively</th> </tr> </thead> <tbody> <tr> <td>ESU County</td> <td>0</td> <td>85</td> </tr> <tr> <td>Other County, ESU State</td> <td>5</td> <td>5</td> </tr> <tr> <td>Other</td> <td>10</td> <td>30</td> </tr> </tbody> </table>	Commenter Location	Positively	Negatively	ESU County	0	85	Other County, ESU State	5	5	Other	10	30	<ul style="list-style-type: none"> • FERC category: “Wildlife (including migratory birds)” • 98.5% mention negative impacts.
Commenter Location	Positively	Negatively											
ESU County	0	85											
Other County, ESU State	5	5											
Other	10	30											
<p>How Would the ESU Affect Air Quality?</p> <p>This stacked bar chart displays the number of comments for three commenter locations: ESU County, Other County, ESU State, and Other. The y-axis represents the number of comments, ranging from 0 to 120. The legend indicates that blue represents 'Positively' and red represents 'Negatively'. For ESU County, there are approximately 115 negative comments and 0 positive comments. For Other County, ESU State, there are approximately 5 positive and 5 negative comments. For Other, there are approximately 10 positive and 45 negative comments.</p> <table border="1"> <thead> <tr> <th>Commenter Location</th> <th>Positively</th> <th>Negatively</th> </tr> </thead> <tbody> <tr> <td>ESU County</td> <td>0</td> <td>115</td> </tr> <tr> <td>Other County, ESU State</td> <td>5</td> <td>5</td> </tr> <tr> <td>Other</td> <td>10</td> <td>45</td> </tr> </tbody> </table>	Commenter Location	Positively	Negatively	ESU County	0	115	Other County, ESU State	5	5	Other	10	45	<ul style="list-style-type: none"> • FERC category: “Air Quality” • 97.7% mention negative impacts.
Commenter Location	Positively	Negatively											
ESU County	0	115											
Other County, ESU State	5	5											
Other	10	45											

<p>How Would the ESU Affect Noise?</p> <table border="1"> <caption>Data for Noise Impacts</caption> <thead> <tr> <th>Commenter Location</th> <th>Positively</th> <th>Negatively</th> </tr> </thead> <tbody> <tr> <td>ESU County</td> <td>0</td> <td>45</td> </tr> <tr> <td>Other County, ESU State</td> <td>1</td> <td>5</td> </tr> <tr> <td>Other</td> <td>1</td> <td>10</td> </tr> </tbody> </table>	Commenter Location	Positively	Negatively	ESU County	0	45	Other County, ESU State	1	5	Other	1	10	<ul style="list-style-type: none"> • FERC category: “Noise” • 96.7% mention negative impacts.
Commenter Location	Positively	Negatively											
ESU County	0	45											
Other County, ESU State	1	5											
Other	1	10											
<p>How Would the ESU Affect Endangered and Threatened Species?</p> <table border="1"> <caption>Data for Endangered and Threatened Species Impacts</caption> <thead> <tr> <th>Commenter Location</th> <th>Positively</th> <th>Negatively</th> </tr> </thead> <tbody> <tr> <td>ESU County</td> <td>0</td> <td>62</td> </tr> <tr> <td>Other County, ESU State</td> <td>1</td> <td>7</td> </tr> <tr> <td>Other</td> <td>0</td> <td>28</td> </tr> </tbody> </table>	Commenter Location	Positively	Negatively	ESU County	0	62	Other County, ESU State	1	7	Other	0	28	<ul style="list-style-type: none"> • FERC category: “Endangered and Threatened Species” • 99% mention negative impacts.
Commenter Location	Positively	Negatively											
ESU County	0	62											
Other County, ESU State	1	7											
Other	0	28											
<p>How Would the ESU Affect Public Safety?</p> <table border="1"> <caption>Data for Public Safety Impacts</caption> <thead> <tr> <th>Commenter Location</th> <th>Positively</th> <th>Negatively</th> </tr> </thead> <tbody> <tr> <td>ESU County</td> <td>2</td> <td>112</td> </tr> <tr> <td>Other County, ESU State</td> <td>1</td> <td>5</td> </tr> <tr> <td>Other</td> <td>0</td> <td>48</td> </tr> </tbody> </table>	Commenter Location	Positively	Negatively	ESU County	2	112	Other County, ESU State	1	5	Other	0	48	<ul style="list-style-type: none"> • FERC category: “Public Safety” • 97.6% mention negative impacts.
Commenter Location	Positively	Negatively											
ESU County	2	112											
Other County, ESU State	1	5											
Other	0	48											

The four Likert-scale questions included in the comment review form allow us to gauge the strength of commenters’ concern for four overarching issues: effects on the economy; contribution to U.S. energy needs; effects on the environment; and effects on lifestyle/quality of life. For each, the reviewer answered the question “Overall how does the commenter think the Eastern System Upgrade Project will affect the economy [for example]?” by selecting a number on a 1-5 scale, with 1 being “Extremely Negatively” and 5 being “Extremely Positively.” For comment letters containing no discernable opinion on the issue, the question was left blank.

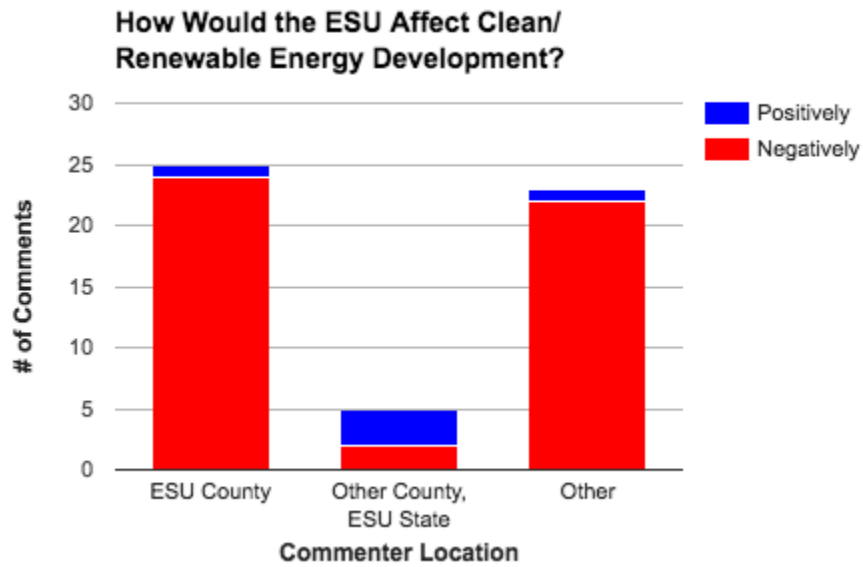


The majority of commenters believe the Eastern System Upgrade Project will have an overall negative effect (1 or 2 on the scale) in four key areas. Of all commenters who mentioned the economy, 89.4% think the Eastern System Upgrade Project will harm the economy; 83.6% of those mentioning energy needs said the project would not help the U.S. meet a domestic energy need; 97.2% of those mentioning the environment said the project would have a negative impact on the environment; and 97.5% of those mentioning lifestyle/quality of life expect a negative effect. Interestingly (because it is where the impact of spending on construction and operation of the pipeline is most likely to occur⁷), commenters closest to the proposed project are least likely to believe the Eastern System Upgrade Project would help the economy or contribute to U.S. energy needs. Only 8.3% of such commenters indicated that the Eastern System Upgrade Project would be good for the economy (a score of 4 or 5), and just 16.4% thought there would be a positive contribution to U.S. energy needs.



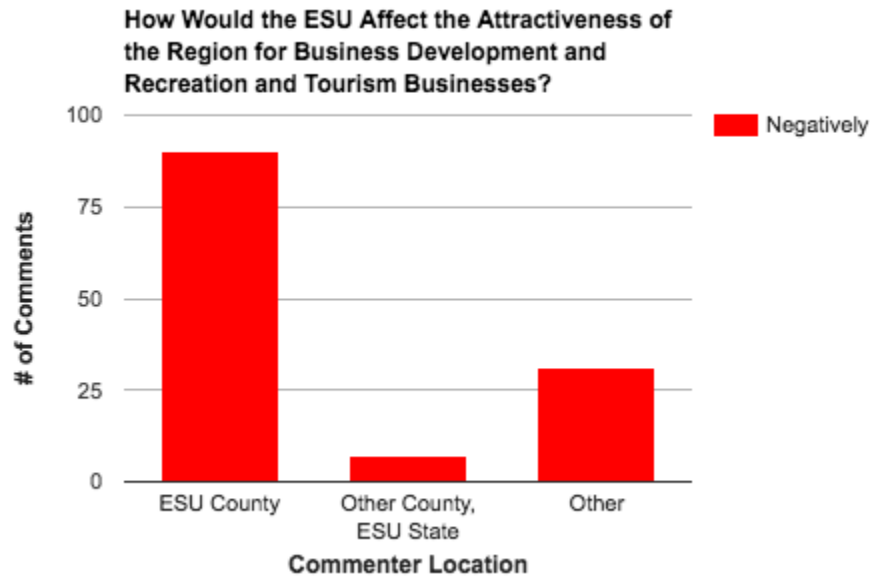
Many comments, 204, also mentioned the issue of health. 97.1% of these commenters believe the Eastern System Upgrade Project will negatively affect health. Health concerns were wide ranging, but many were worried about health effects caused by pollution from the compressor stations.

⁷ As part of its application, Millennium LLC submitted a report on socioeconomics (“Resource Report 5”) including an economic impact study by Concentric Energy Advisors that estimates regional job and income impacts of spending on the construction and operation of the project as well as estimated energy savings that would occur from the project (See Concentric Energy Advisors. (2016). *Estimated Savings For New York Consumers From the Millennium Pipeline Eastern System Upgrade Project* and Millennium Pipeline Company, L.L.C. (2016b). *Eastern System Upgrade, Resource Report 5: Socioeconomics* (p. 32). Millennium Pipeline Company, L.L.C.).



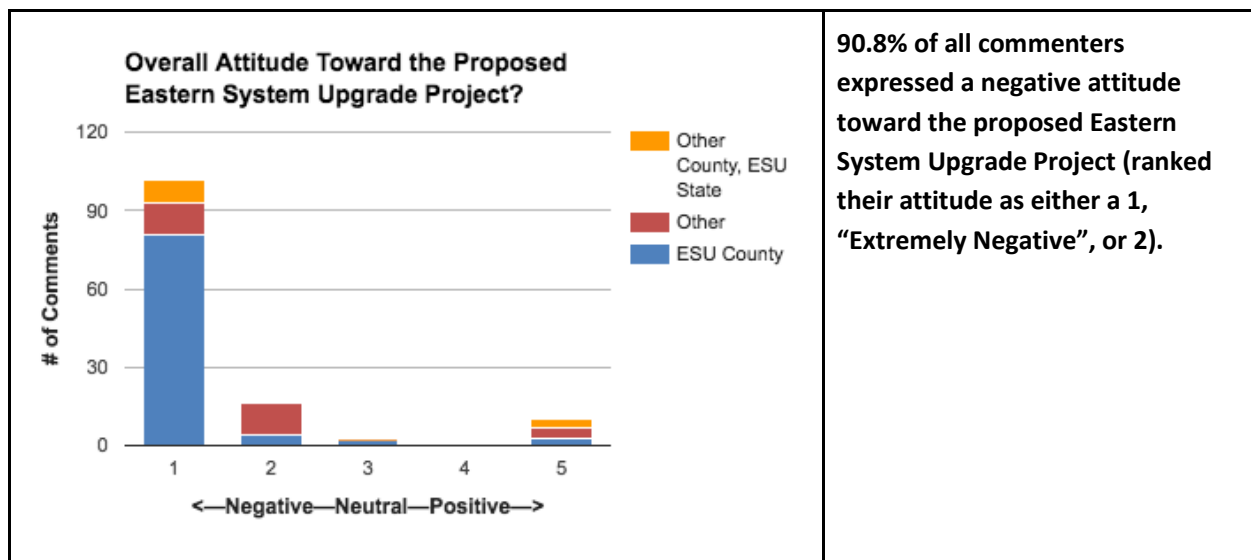
Millennium LLC claims that the project will create energy savings due to the additional capacity the project would provide. However, in our review of the costs of the Eastern System Upgrade⁸, we found flaws in the claims presented by Millennium LLC and Concentric Energy Advisors in that they do not accurately assess the important role renewable energy will play in the 10 years they estimate energy saving benefits. Citizens commenting on the project also agree. Of 53 comments that mentioned clean/renewable energy, 48 believed that the project would negatively impact clean/renewable energy development.

⁸ The review is Phillips, Spencer, Sonia Z. Wang, and Carolyn Alkire. "Economic Costs of the Eastern System Upgrade: Effects on Property Value, the Social Cost of Carbon, and Public Health." Key-Log Economics, LLC, April 2016.



Another important issue for citizens residing near the proposed project was how the project would impact the attractiveness of the region for business development and how the project would impact recreation and tourism businesses. Commenters noted that many homes in the area are second homes/vacation homes, with people drawn to the region for the pristine environment and ample recreation activities. Many comments also addressed concern that the project would hurt the tourism industry in the region. Out of 128 commenters that mentioned concerns over how the project would impact the attractiveness of the region or how the project would impact recreation and tourism, 100% of commenters believed the Eastern System Upgrade Project would have a negative impact.

Given the input of citizens regarding individual issues reported thus far, it will come as no surprise that most commenters have an overall negative opinion of the proposed Eastern System Upgrade Project. 90.8% have negative feelings toward the project. Among commenters who live or own property in a county potentially impacted by the ESU, the proportion of commenters opposed to the project is similar, 90%.



Conclusions

This analysis demonstrates the wealth of concerns that citizens have expressed to FERC through the NEPA process and shows the depth and breadth of those citizens' beliefs that the proposed Eastern System Upgrade Project will have negative or adverse effects on the environment, the economy, U.S. energy needs, and people's quality of life. This citizen input is what FERC is required to consider and address as it finalizes its Environmental Assessment.

The opportunity for citizen input is a core principal of the NEPA process. Citizens possess a wealth of knowledge that can be extremely helpful and enlightening for federal agencies. Moreover, these comments voice real concerns over aspects of the ESU proposal that FERC itself has flagged as important. Thus, FERC will best serve the public by carefully considering the content of the citizen input summarized here and, moreover, by addressing citizens' concerns fully in its analysis of the potential adverse effects of the Eastern System Upgrade Project.

For their part, citizens and their representatives can use this analysis and the data behind it to evaluate how well FERC succeeds in addressing the adverse effects of the proposed Eastern System Upgrade Project. Delaware Riverkeeper Network can provide interested readers with further information about the Eastern System Upgrade Project and how to become or stay involved in the review process at the federal and state levels going forward.

Appendix A: Comment Analysis Form

Note: Reads from left to right.

Eastern System Upgrade Project: FERC Comment Analysis

Thank you so much for helping to analyze the input received by the Federal Energy Regulatory Commission (FERC) regarding the proposed Eastern System Upgrade Project.

You don't have to be an expert on the issues to help out, but your help will enable detailed economic and policy analysis that will lead to better information being brought to bear on FERC's decisions regarding the ESU over the coming year.

Just as a reminder here's how to analyze your comment:

1. With your comment letter open in another window, fill out the form below to the best of your ability. Select (and sometimes type) answers to the questions on the survey using the information in the comment.
2. You may want to read or skim the comment before you begin answering questions in order to get the idea of the commenter's points first.
3. Please understand that we are trying to record as accurately as possible what the commenter is portraying in their comment, regardless of what his/her opinion might be regarding the ESU Project itself. Our goal is to have a fair and accurate accounting of what people have said to FERC.
4. When you have finished filling out this form click submit.
5. Choose "submit another response" to repeat for another comment letter.

Most of all, please accept our great thanks for your help.

Please e-mail keeper@delawareriverkeeper.org if you have any other questions about this process.

* Required

Note: The Eastern Expansion Project referred to here includes all of its components: 7.8 miles of pipeline loop in Orange County, New York, construction of a new compressor station in Sullivan County, New York, and additional horsepower for the existing Hancock compressor station in Delaware County, New York.

If the commenter specifically states, or if you know from other information they give, check off the County in which they reside (or own property/do business). *

The specific counties listed are those crossed by the proposed ESU Project.

- Delaware County, NY
- Orange County, NY
- Rockland County, NY
- Sullivan County, NY
- Other NY County
- Any Other State
- Unstated/Unsure

If the commenter lists his/her residence or other property near the proposed Eastern System Upgrade Project, please indicate, as specifically as possible, the property's location.

For example "123 main street, Delaware, NY," "Orange," or just "New York."

Your answer _____

Please enter your email. *

Your answer _____

Please enter the "Submittal Number" of the comment. This is the title of the PDF comment you were sent. *

It will be numbers in the form XXXXXXXX-XXXX (12 total digits).

Your answer _____

How does the person who submitted the comment describe him/herself?

Check all that apply

- Individual (including landowner)
- Business
- Association or Organization
- Government Official
- Expert Report
- Other: _____

Please list the name of the commenter, including any associations they list.

Association Examples: Millennium Pipeline Company, LLC, Owner/Employee of _____, Member/officer of [organization] (Homeowners Association, Delaware Riverkeeper Network, Chamber of Commerce, etc.)

Your answer _____

Does the commenter mention any of the following economic factors that they say will be impacted either positively or negatively if the Eastern System Upgrade Project is permitted? Please choose a rating for all that are mentioned. Leave blank any others.

	Positively	Negatively	Did Not Mention
Economy (generally)	○	○	○
Jobs	○	○	○
Attractiveness of the Region for Business Development	○	○	○
Recreation and Tourism Businesses	○	○	○
Other Local Businesses	○	○	○
Property Values	○	○	○

Overall how does the commenter think the Eastern System Upgrade Project will affect the economy?

Please leave blank if they seem to have no opinion.

	1	2	3	4	5	
Extremely Negatively	○	○	○	○	○	Extremely Positively

Citizen Input Regarding the Proposed Eastern System Upgrade

Does the commenter mention any of the following energy factors that they say will be impacted either positively or negatively if the Eastern System Upgrade Project is permitted?

Please choose a rating for all that are mentioned. Leave blank any others.

	Positively	Negatively	Did Not Mention
"Clean"/Renewable Energy Supply (Solar, Wind, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Energy Reliability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cost of Energy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
U.S. Energy Independence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shale Gas/Drilling/Fracking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
LNG/Shale Gas Exports	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Overall, does the commenter think the ESU project will help meet an identified US energy need?

Please leave blank if they seem to have no opinion.

	1	2	3	4	5	
Commenter believes it will not	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Commenter believes it will

Wildlife (including migratory birds)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Air Quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Noise Pollution	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Endangered and Threatened Species	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recreation Areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Climate Change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Land Use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Overall how does the commenter think the Eastern System Upgrade Project will affect the environment?

Please leave blank if they seem to have no opinion.

	1	2	3	4	5	
Extremely Negatively	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Extremely Positively

Does the commenter mention any of the following environmental factors that they say will be impacted either positively or negatively if the Eastern System Upgrade Project is permitted?

Please choose a rating for all that are mentioned. Leave blank any others.

	Positively	Negatively	Did Not Mention
Environment (generally)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Geologic Hazards	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Agricultural Areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Livestock	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soils	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Erosion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sedimentation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Surface Water (streams/rivers/lakes/etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Groundwater (including wells and springs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fisheries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wetlands	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vegetation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wildlife (including migratory birds)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Air Quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Does the commenter mention any of the following lifestyle factors that they say will be impacted either positively or negatively if the Eastern System Upgrade Project is permitted?

Please choose a rating for all that are mentioned. Leave blank any others.

	Positively	Negatively	Did Not Mention
Recreational Opportunities and/or Quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Educational Opportunities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of Life	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Impacts Related to Noise During Construction and Operation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Local/Rural Character (including aesthetics)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Property Rights	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public Safety	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cultural Resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Overall how does the commenter think the Eastern System Upgrade Project will affect lifestyle?

Please leave blank if they seem to have no opinion.

	1	2	3	4	5	
Extremely Negative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Extremely Positive

Citizen Input Regarding the Proposed Eastern System Upgrade

Did the commenter mention environmental justice?

Environmental Justice is the fair treatment of all people regardless of race, color, national origin, or income when it comes to environmental impacts. Leave blank if they did not mention.

- Positively
- Negatively

Does the comment express concern over any of the following systemic issues?

Check all that apply.

- Purpose and Need for the Project
- Impacts on Residential Areas and Use of Eminent Domain
- Cumulative Effects of Multiple Pipeline Proposals
- Assessment of Alternative Pipeline Routes and Compressor Station Locations
- Cumulative Impacts

What is the desired outcome of the commenter?

- Eastern System Upgrade Project is built
- Eastern System Upgrade Project is not built
- Unstated/Unsure
- Other: _____

Overall what is this comment's attitude toward the proposed Eastern System Upgrade Project?

	1	2	3	4	5	
Extremely Negative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Extremely Positive

In your opinion, does this comment letter include a good personal story/testimony that illustrates one or more of the following effects?

Check all that apply:

- Effects on ecosystem services, or the capacity of natural systems to provide clean water, air, recreation, beauty, etc. to people
- Effects on human health and safety
- Effects on property values (including on market prices, appraisals, insurability, and ability to get a mortgage)
- Effects on the community services like fire, police, road maintenance, and the costs of providing them
- Effects on the attractiveness of the community/region as a place to live, work, do business, or retire

If the commenter used or referenced any statistics in their comment please list them here with the source of the statistic, if available.

Please be as specific as possible to enable our researchers to find the source data if needed.

Your answer

Please list anything else the comment said that you felt was of importance and not covered in previous questions.

Your answer

Does this comment appear to be a form letter?

A form letter is a letter written from a template, rather than being specially composed by each individual.

- Yes
- No
- Maybe

Does this comment appear to be a petition

- Yes
- No
- Maybe

NEXT

Appendix B: Instructions for Volunteers

Dear Volunteer,

Thank you so much for helping to analyze the input received by the Federal Energy Regulatory Commission (FERC) regarding the proposed Millennium Eastern System Upgrade. The comments you will review are part of the “scoping” phase, in which citizens, experts and interested parties are to advise FERC on what questions and issues it should consider when writing an Environmental Impact Statement for the Millennium Eastern System Upgrade. This is all part of FERC’s obligations under the National Environmental Policy Act, or NEPA.

You don't have to be an expert on the issues to help out, but your help will enable detailed economic and policy analysis that will lead to better information being brought to bear on FERC's decisions regarding the pipeline over the coming year. If you'd like to learn more about the pipeline proposal and DRN's associated efforts, you can read about it at <http://bit.ly/DRN-StopMillenniumESU>.

Here's how your citizen-science participation works:

1. Attached to this e-mail is a "packet" of 3 comment letters for you to review.
2. For each comment letter in the packet:
 1. Open the comment letter right in your browser, or download it and open it using Adobe Acrobat Reader or a similar program.
 2. Click on [this link](#) to open a fresh copy of the review/summary form. If that link doesn't work automatically, please paste the following into the address bar of a new browser window and hit <enter>. https://docs.google.com/forms/d/e/1FAIpQLSfrmlI_nV-Ex0q3dx4aLau2PsJKuOuafj64AkjOnjqXj5SZLg/viewform
 3. To the best of your ability, select (and sometimes type) answers to the questions on the survey using the information in the comment.
You may want to read or skim the comment before you begin answering questions in order to get the idea of the commenter's points first.
Please understand that we are trying to record as accurately as possible what the commenter is portraying in their comment, regardless of what his/her opinion might be regarding the pipeline itself. Our goal is to have a fair and accurate accounting of what people have said to FERC.
3. Repeat steps 2.1 through 2.3 for the other two comments in your packet.
4. Please be sure to answer the last questions on the survey about your progress with your packet. This step will be extremely helpful for us so that we can keep track of which of the many thousands of submitted comments have been reviewed. If you decide you don't want to participate, please email to let us know you won't be doing any of your comments or perhaps that you only did 1 or 2 of the packet. That is still helpful work and good for us to know! We'll ask a different volunteer to review the other comment(s). We ask that you finish your packet within 7 days of receiving it if possible.
5. At the end of the survey you will have an option to request more comments to review if you would like. We'll be thrilled if you do! Please feel free to spread the word and pass information about this opportunity along to anyone else you think might be interested in helping out!

Most of all, please accept our great thanks for your help. Thanks to your participation and that of many other volunteers we know we can get through the thousands of comments submitted to FERC and help ensure better decisions for the people, communities, and economies concerned about the proposed pipeline.

Citizen Input Regarding the Proposed Eastern System Upgrade

We are so grateful for your time. Please email molly@delawariverkeeper.org if I have left anything out of the instructions that you need to proceed.