GARNET ENERGY CENTER
ARTICLE 10 EXHIBIT 24

OUTREACH CORRESPONDENCE

ATTACHMENT 5

Garnet Energy Center, LLC
Visual Stakeholders List

HOST COMMUNITY
Charles Knapp, Supervisor Town of Conquest 1289 Fuller Road Port Byron, NY 13140
Joni Lincoln, Town Historian Town of Conquest 10376 State Rt. 38 Port Byron, NY 13140
LOCAL COMMUNITY WITHIN STUDY RADIUS
James A. Hotaling, Town Supervisor Town of Brutus 9021 North Seneca Street PO Box 720 Weedsport, NY 13166
David Spickerman, Town Supervisor Town of Butler 4576 Butler Center Road Wolcott, NY 14590
Charles Ray, Town Supervisor Town of Cato 11320 Short Cut Road Cato, NY 13033
Michael Kolczynski, Town Supervisor Town of Savannah PO Box 296 Savannah, NY 13146
Michael Wiggins, Town Supervisor Town of Victory 1323 Town Barn Road Red Creek, NY 13143
STATE AGENCIES
Andrew Davis, Utility Supervisor- Environmental NYS Department of Public Service #3 Empire State Plaza Albany, NY 12223
Matthew Marko, Regional Director NYS Department of Environmental Conservation Region 7 Office 615 Erie Blvd. West Syracuse, NY 13204
James Finelli NYS Office of Parks, Recreation and Historic Preservation, Finger Lakes Region 2221 Taughannock Road Trumansburg, NY 14886

650 Suffolk St., Suite 200
Lowell, MA 01854

T 978.970.5600
TRCcompanies.com

January 27, 2021

Charles Knapp, Town Supervisor
Town of Conquest, New York
1289 Fuller Road
Port Byron, NY 13140

Sent via email to: conquestclerk@tds.net

Subject: Visual Impact Survey Request – Garnet Energy Center

Dear Mr. Knapp:

This letter serves as an information request concerning the development of a proposed 200 megawatt solar energy center with a 20 megawatt/4-hour duration energy storage system, the Garnet Energy Center (Project), in the Town of Conquest, Cayuga County, New York, by Garnet Energy Center, LLC (the Applicant), a subsidiary of NextEra Energy Resources, LLC. The Applicant plans to submit an Application to construct a major electric generating facility under Article 10 of the New York Public Service Law (PSL) for the Project.

Specifically, this letter request is in regard to the requirements of Sections 1001.24 b(4) of the New York State Board on Electric Generation Siting and the Environment's (Siting Board) regulations. As required for Exhibit 24, a Visual Impact Assessment (VIA) shall be included in an Article 10 Application to determine the extent and assess the significance of facility visibility. The VIA will, in part, identify sensitive resource areas susceptible to visual changes from the proposed Project and present photographic simulations of the proposed Project's facilities in relation to selected, representative viewpoints. The VIA also supports Exhibit 20, which takes into account sites or structures listed in or eligible for listing in the National or State Register of Historic Places (NRHP/SRHP).

Enclosed with this letter is a progress report on the VIA. It provides an overview of the work that has been done to date on the VIA including the status of visualization studies, site visits, preliminary analyses, and background information on the VIA process. The engineering/project layout for specific solar array locations is still being developed and is not yet finalized. Areas preliminarily being considered for the placement of arrays have been depicted in the enclosed mapping.

In compliance with Article 10 regulations, we are herein requesting your input as part of the Applicant's consultations with local historic preservation groups and Visual Stakeholders (which comprise the Town of Conquest municipal representatives, NYSDPS, NYSDEC, OPRHP, and municipalities within the five-mile viewshed of the Visual Study Area having predicted visibility of the Project) in its selection of important or representative viewpoints that may be subject to Project visibility.

Preliminary visual analyses and site investigations are in progress. The purpose of this letter and the enclosed Progress Report are to:

- Provide the reader with the extent and findings of visibility studies thus far, and

- Request the timely input from local historic groups and Visual Stakeholders in identifying any additional sensitive visual resources important to the community within the Project study area over what is provided herein, and/or,
- Provide an opportunity for the Visual Stakeholders to suggest additional representative and reasonable candidate locations for photo-simulations (before and after depictions of the Project) in areas of their concern. It should be noted this request is confined to areas with public access.

Please review the inventory of visual resources in Table 1 of the Progress Report for completeness.

Please also review the candidate viewpoints listed in Table 2 and shown in Attachments 1 and 2.

If you feel that the identified visual resources and candidate viewpoints provide an adequate representation of the Project for the purposes of preparing the VIA, no further action on your part is necessary. However, if there are other public locations of concern currently not depicted, where you would like to suggest that additional representative photos be taken, or if there are any additional visual resources that are important to note, please provide your comments or feedback, with an explanation of why you feel that location/viewpoint should be included.

Any comments or feedback you may have are **requested by February 12, 2021** and should be sent to the following:

- Via email to Judy Bartos: JBartos@trccompanies.com
- Via email to William Boer: William.Boer@nexteraenergy.com

Thank you for your attention to this request. We appreciate your input and assistance identifying significant sensitive visual areas.

Best regards,

Judy Bartos, Visualization Specialist
TRC Companies, Inc.

From:	Stephen B. Le Fevre
To:	Boer, William; Bartos, Judith
Cc:	Knapp, Charlie (C_KNAPP@IWGBWD.com); conquestclerk (conquestclerk@tds.net); Norman Chirco (chircolaw@hotmail.com)
Subject:	[EXTERNAL] Visual Impact Survey Request - Garnet Energy Center
Date:	Friday, February 12, 2021 10:13:28 AM
Attachments:	Garnet Visual Impact Survey - Addl Viewpoints Requested by Town of Conquest_021121 (ID 2248458).pdf
Importance:	High

Hello Judy/William,

On behalf of the Town of Conquest, please refer to the two attached figures which identify 12 additional viewpoint locations (labeled as A through L on the attached figures). This information is being provided in response to your Visual Impact Survey Request that was emailed to the Town on January 27, 2021. Upon your review of the attached, please feel free to contact me if you have any questions or would like to discuss.

Thanks, Steve

Stephen B. Le Fevre, P.G., C.P.G.
Senior Managing Hydrogeologist
Environmental

Barton&Loguidice
Office: 518.218.1801
Mobile: 518.369.9290
Email: slefevre@bartonandloguidice.com
Website | LinkedIn | Twitter | Facebook | Vimeo

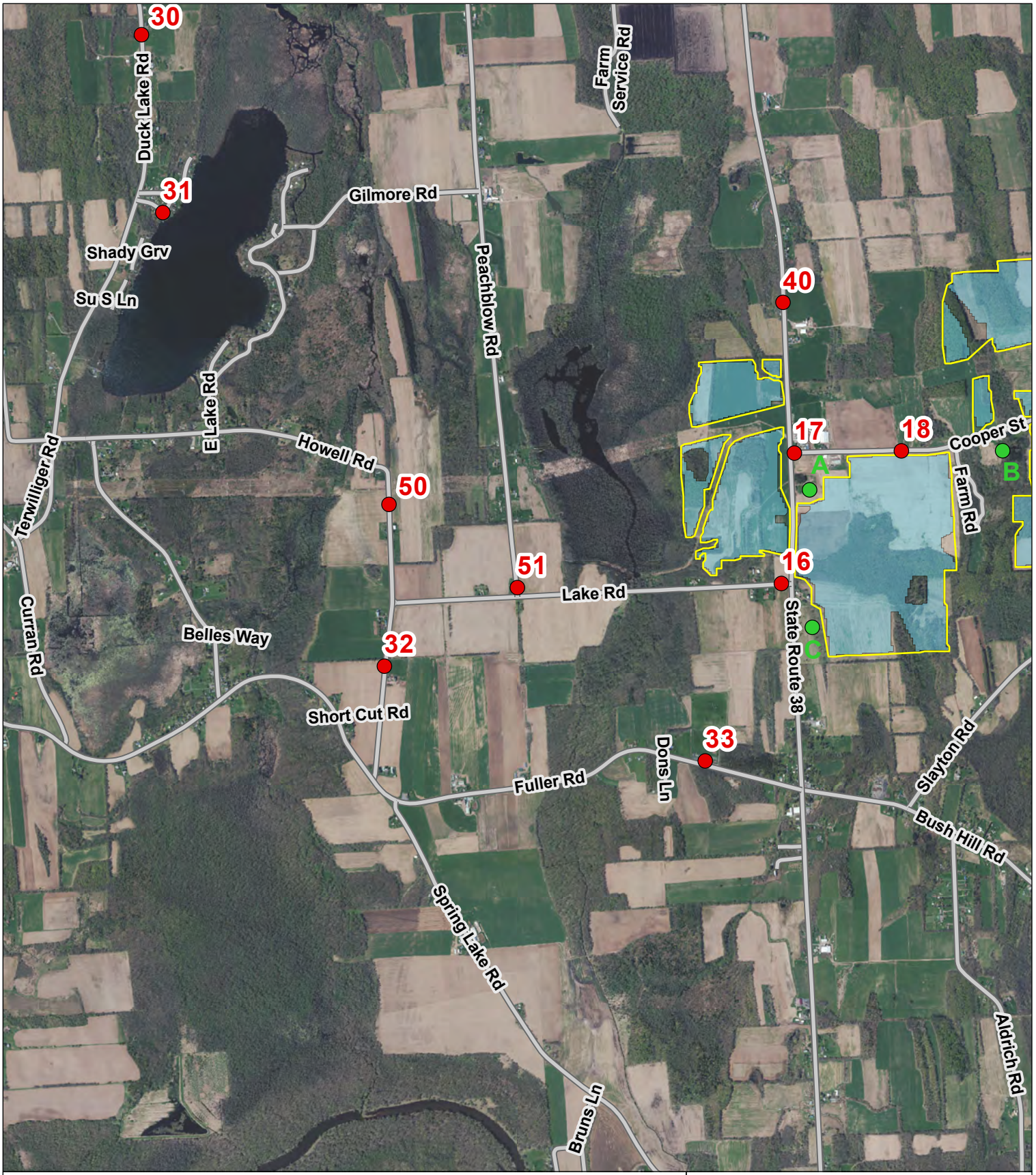


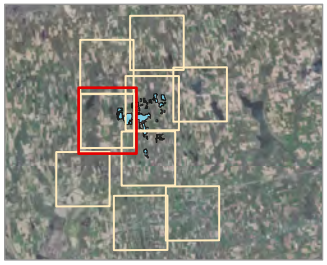
PHOTO VIEWPOINT

ADDITIONAL PHOTO VIEWPOINT REQUESTED BY THE TOWN

PROPOSED ARRAY LOCATIONS

N

0 0.25 0.5 Miles



NEXTera ENERGY

GARNET ENERGY CENTER
PHOTO VIEWPOINTS

MAP 3

Date : 1/14/2021

W:\MyDocuments\880342_Garnet\VISUAL\VB_Working_Garnet\aprx\

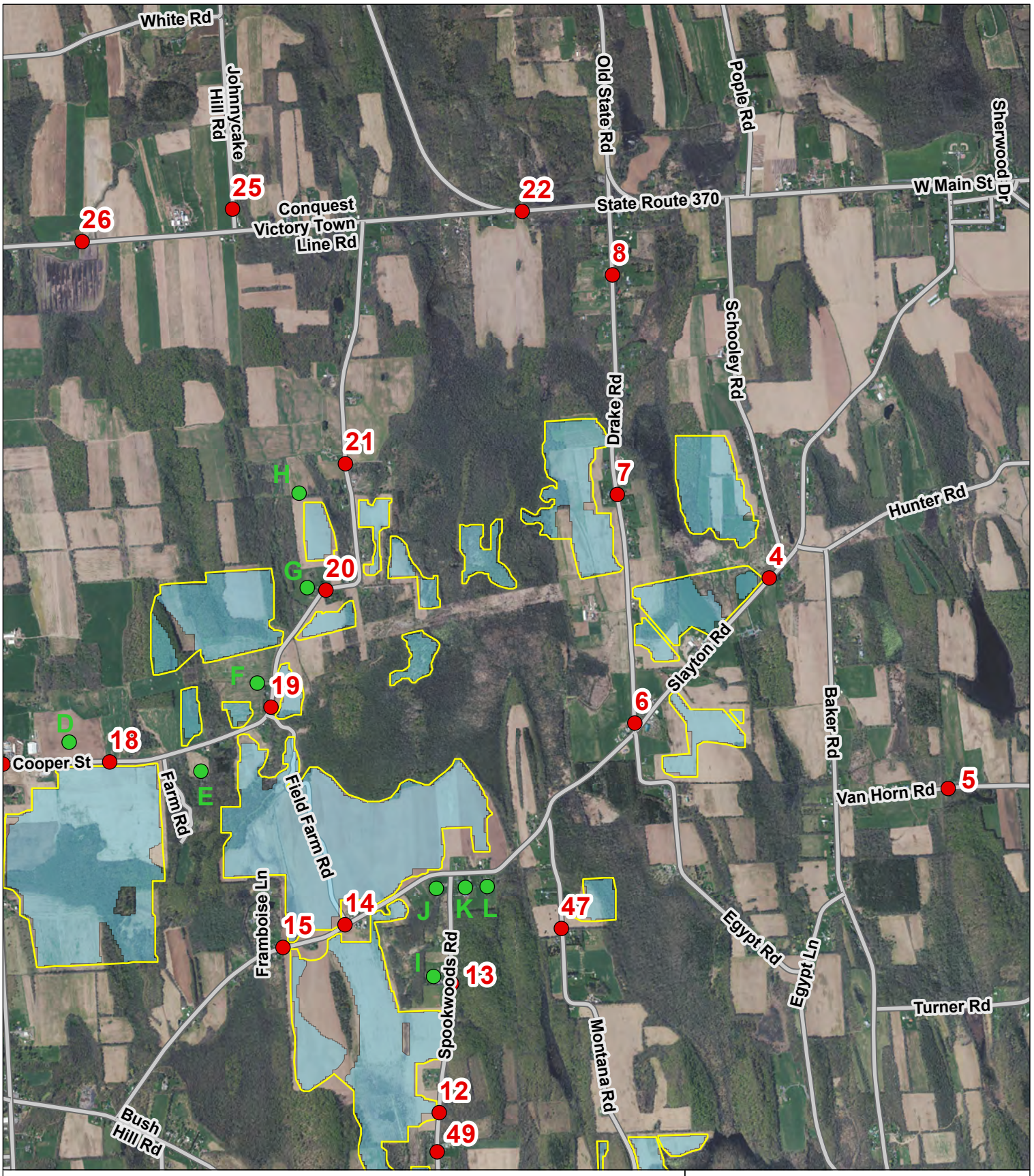


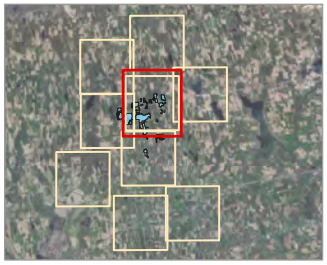
PHOTO VIEWPOINT

ADDITIONAL PHOTO VIEWPOINT REQUESTED BY THE TOWN

PROPOSED ARRAY LOCATIONS

N

0 0.25 0.5 Miles



NEXTera ENERGY

GARNET ENERGY CENTER
PHOTO VIEWPOINTS

MAP 4

Date : 1/14/2021

W:\MyDocuments\880342_Garnet\VISUAL\VB_Working_Garnet\aprx\

650 Suffolk St., Suite 200
Lowell, MA 01854

T 978.970.5600
TRCcompanies.com

January 27, 2021

Joni Lincoln, Town Historian
Town of Conquest, New York
10376 State Rte. 38
Port Byron, NY 13140

Subject: Visual Impact Survey Request – Garnet Energy Center

Dear Ms. Lincoln:

This letter serves as an information request concerning the development of a proposed 200 megawatt solar energy center with a 20 megawatt/4-hour duration energy storage system, the Garnet Energy Center (Project), in the Town of Conquest, Cayuga County, New York, by Garnet Energy Center, LLC (the Applicant), a subsidiary of NextEra Energy Resources, LLC. The Applicant plans to submit an Application to construct a major electric generating facility under Article 10 of the New York Public Service Law (PSL) for the Project.

Specifically, this letter request is in regard to the requirements of Sections 1001.24 b(4) of the New York State Board on Electric Generation Siting and the Environment's (Siting Board) regulations. As required for Exhibit 24, a Visual Impact Assessment (VIA) shall be included in an Article 10 Application to determine the extent and assess the significance of facility visibility. The VIA will, in part, identify sensitive resource areas susceptible to visual changes from the proposed Project and present photographic simulations of the proposed Project's facilities in relation to selected, representative viewpoints. The VIA also supports Exhibit 20, which takes into account sites or structures listed in or eligible for listing in the National or State Register of Historic Places (NRHP/SRHP).

Enclosed with this letter is a progress report on the VIA. It provides an overview of the work that has been done to date on the VIA including the status of visualization studies, site visits, preliminary analyses, and background information on the VIA process. The engineering/project layout for specific solar array locations is still being developed and is not yet finalized. Areas preliminarily being considered for the placement of arrays have been depicted in the enclosed mapping.

In compliance with Article 10 regulations, we are herein requesting your input as part of the Applicant's consultations with local historic preservation groups and Visual Stakeholders (which comprise the Town of Conquest municipal representatives, NYSDPS, NYSDEC, OPRHP, and municipalities within the five-mile viewshed of the Visual Study Area having predicted visibility of the Project) in its selection of important or representative viewpoints that may be subject to Project visibility.

Preliminary visual analyses and site investigations are in progress. The purpose of this letter and the enclosed Progress Report are to:

- Provide the reader with the extent and findings of visibility studies thus far, and

- Request the timely input from local historic groups and Visual Stakeholders in identifying any additional sensitive visual resources important to the community within the Project study area over what is provided herein, and/or,

- Provide an opportunity for the Visual Stakeholders to suggest additional representative and reasonable candidate locations for photo-simulations (before and after depictions of the Project) in areas of their concern. It should be noted this request is confined to areas with public access.

Please review the inventory of visual resources in Table 1 of the Progress Report for completeness.

Please also review the candidate viewpoints listed in Table 2 and shown in Attachments 1 and 2.

If you feel that the identified visual resources and candidate viewpoints provide an adequate representation of the Project for the purposes of preparing the VIA, no further action on your part is necessary. However, if there are other public locations of concern currently not depicted, where you would like to suggest that additional representative photos be taken, or if there are any additional visual resources that are important to note, please provide your comments or feedback, with an explanation of why you feel that location/viewpoint should be included.

Any comments or feedback you may have are **requested by February 12, 2021** and should be sent to the following:

- Via email to Judy Bartos: JBartos@trccompanies.com
- Via email to William Boer: William.Boer@nexteraenergy.com

Thank you for your attention to this request. We appreciate your input and assistance identifying significant sensitive visual areas.

Best regards,

Judy Bartos, Visualization Specialist
TRC Companies, Inc.

650 Suffolk St., Suite 200
Lowell, MA 01854

T 978.970.5600
TRCcompanies.com

January 27, 2021

James A. Hotaling, Town Supervisor
Town of Brutus, New York
9021 North Seneca Street
PO Box 720
Weedsport, NY 13166

Sent via email to: townofbrutus@centralny.twcbc.com

Subject: Visual Impact Survey Request – Garnet Energy Center

Dear Mr. Hotaling:

This letter serves as an information request concerning the development of a proposed 200 megawatt solar energy center with a 20 megawatt/4-hour duration energy storage system, the Garnet Energy Center (Project), in the Town of Conquest, Cayuga County, New York, by Garnet Energy Center, LLC (the Applicant), a subsidiary of NextEra Energy Resources, LLC. The Applicant plans to submit an Application to construct a major electric generating facility under Article 10 of the New York Public Service Law (PSL) for the Project.

Specifically, this letter request is in regard to the requirements of Sections 1001.24 b(4) of the New York State Board on Electric Generation Siting and the Environment's (Siting Board) regulations. As required for Exhibit 24, a Visual Impact Assessment (VIA) shall be included in an Article 10 Application to determine the extent and assess the significance of facility visibility. The VIA will, in part, identify sensitive resource areas susceptible to visual changes from the proposed Project and present photographic simulations of the proposed Project's facilities in relation to selected, representative viewpoints. The VIA also supports Exhibit 20, which takes into account sites or structures listed in or eligible for listing in the National or State Register of Historic Places (NRHP/SRHP).

Enclosed with this letter is a progress report on the VIA. It provides an overview of the work that has been done to date on the VIA including the status of visualization studies, site visits, preliminary analyses, and background information on the VIA process. The engineering/project layout for specific solar array locations is still being developed and is not yet finalized. Areas preliminarily being considered for the placement of arrays have been depicted in the enclosed mapping.

In compliance with Article 10 regulations, we are herein requesting your input as part of the Applicant's consultations with local historic preservation groups and Visual Stakeholders (which comprise the Town of Conquest municipal representatives, NYSDPS, NYSDEC, OPRHP, and municipalities within the five-mile viewshed of the Visual Study Area having predicted visibility of the Project) in its selection of important or representative viewpoints that may be subject to Project visibility.

Preliminary visual analyses and site investigations are in progress. The purpose of this letter and the enclosed Progress Report are to:

- Provide the reader with the extent and findings of visibility studies thus far, and

- Request the timely input from local historic groups and Visual Stakeholders in identifying any additional sensitive visual resources important to the community within the Project study area over what is provided herein, and/or,
- Provide an opportunity for the Visual Stakeholders to suggest additional representative and reasonable candidate locations for photo-simulations (before and after depictions of the Project) in areas of their concern. It should be noted this request is confined to areas with public access.

Please review the inventory of visual resources in Table 1 of the Progress Report for completeness.

Please also review the candidate viewpoints listed in Table 2 and shown in Attachments 1 and 2.

If you feel that the identified visual resources and candidate viewpoints provide an adequate representation of the Project for the purposes of preparing the VIA, no further action on your part is necessary. However, if there are other public locations of concern currently not depicted, where you would like to suggest that additional representative photos be taken, or if there are any additional visual resources that are important to note, please provide your comments or feedback, with an explanation of why you feel that location/viewpoint should be included.

Any comments or feedback you may have are **requested by February 12, 2021** and should be sent to the following:

- Via email to Judy Bartos: JBartos@trccompanies.com
- Via email to William Boer: William.Boer@nexteraenergy.com

Thank you for your attention to this request. We appreciate your input and assistance identifying significant sensitive visual areas.

Best regards,

Judy Bartos, Visualization Specialist
TRC Companies, Inc.

650 Suffolk St., Suite 200
Lowell, MA 01854

T 978.970.5600
TRCcompanies.com

January 27, 2021

David Spickerman, Town Supervisor
Town of Butler, New York
4576 Butler Center Road
Wolcott, NY 14590

Sent via email to: dave@mail.davesclassix.com

Subject: Visual Impact Survey Request – Garnet Energy Center

Dear Mr. Spickerman:

This letter serves as an information request concerning the development of a proposed 200 megawatt solar energy center with a 20 megawatt/4-hour duration energy storage system, the Garnet Energy Center (Project), in the Town of Conquest, Cayuga County, New York, by Garnet Energy Center, LLC (the Applicant), a subsidiary of NextEra Energy Resources, LLC. The Applicant plans to submit an Application to construct a major electric generating facility under Article 10 of the New York Public Service Law (PSL) for the Project.

Specifically, this letter request is in regard to the requirements of Sections 1001.24 b(4) of the New York State Board on Electric Generation Siting and the Environment's (Siting Board) regulations. As required for Exhibit 24, a Visual Impact Assessment (VIA) shall be included in an Article 10 Application to determine the extent and assess the significance of facility visibility. The VIA will, in part, identify sensitive resource areas susceptible to visual changes from the proposed Project and present photographic simulations of the proposed Project's facilities in relation to selected, representative viewpoints. The VIA also supports Exhibit 20, which takes into account sites or structures listed in or eligible for listing in the National or State Register of Historic Places (NRHP/SRHP).

Enclosed with this letter is a progress report on the VIA. It provides an overview of the work that has been done to date on the VIA including the status of visualization studies, site visits, preliminary analyses, and background information on the VIA process. The engineering/project layout for specific solar array locations is still being developed and is not yet finalized. Areas preliminarily being considered for the placement of arrays have been depicted in the enclosed mapping.

In compliance with Article 10 regulations, we are herein requesting your input as part of the Applicant's consultations with local historic preservation groups and Visual Stakeholders (which comprise the Town of Conquest municipal representatives, NYSDPS, NYSDEC, OPRHP, and municipalities within the five-mile viewshed of the Visual Study Area having predicted visibility of the Project) in its selection of important or representative viewpoints that may be subject to Project visibility.

Preliminary visual analyses and site investigations are in progress. The purpose of this letter and the enclosed Progress Report are to:

- Provide the reader with the extent and findings of visibility studies thus far, and

- Request the timely input from local historic groups and Visual Stakeholders in identifying any additional sensitive visual resources important to the community within the Project study area over what is provided herein, and/or,
- Provide an opportunity for the Visual Stakeholders to suggest additional representative and reasonable candidate locations for photo-simulations (before and after depictions of the Project) in areas of their concern. It should be noted this request is confined to areas with public access.

Please review the inventory of visual resources in Table 1 of the Progress Report for completeness.

Please also review the candidate viewpoints listed in Table 2 and shown in Attachments 1 and 2.

If you feel that the identified visual resources and candidate viewpoints provide an adequate representation of the Project for the purposes of preparing the VIA, no further action on your part is necessary. However, if there are other public locations of concern currently not depicted, where you would like to suggest that additional representative photos be taken, or if there are any additional visual resources that are important to note, please provide your comments or feedback, with an explanation of why you feel that location/viewpoint should be included.

Any comments or feedback you may have are **requested by February 12, 2021** and should be sent to the following:

- Via email to Judy Bartos: JBartos@trccompanies.com
- Via email to William Boer: William.Boer@nexteraenergy.com

Thank you for your attention to this request. We appreciate your input and assistance identifying significant sensitive visual areas.

Best regards,

Judy Bartos, Visualization Specialist
TRC Companies, Inc.

650 Suffolk St., Suite 200
Lowell, MA 01854

T 978.970.5600
TRCcompanies.com

January 27, 2021

Charles Ray, Town Supervisor
Town of Cato, New York
11320 Short Cut Road
Cato, NY 13033

Sent via email to: catosupervisor@live.com

Subject: Visual Impact Survey Request – Garnet Energy Center

Dear Mr. Ray:

This letter serves as an information request concerning the development of a proposed 200 megawatt solar energy center with a 20 megawatt/4-hour duration energy storage system, the Garnet Energy Center (Project), in the Town of Conquest, Cayuga County, New York, by Garnet Energy Center, LLC (the Applicant), a subsidiary of NextEra Energy Resources, LLC. The Applicant plans to submit an Application to construct a major electric generating facility under Article 10 of the New York Public Service Law (PSL) for the Project.

Specifically, this letter request is in regard to the requirements of Sections 1001.24 b(4) of the New York State Board on Electric Generation Siting and the Environment's (Siting Board) regulations. As required for Exhibit 24, a Visual Impact Assessment (VIA) shall be included in an Article 10 Application to determine the extent and assess the significance of facility visibility. The VIA will, in part, identify sensitive resource areas susceptible to visual changes from the proposed Project and present photographic simulations of the proposed Project's facilities in relation to selected, representative viewpoints. The VIA also supports Exhibit 20, which takes into account sites or structures listed in or eligible for listing in the National or State Register of Historic Places (NRHP/SRHP).

Enclosed with this letter is a progress report on the VIA. It provides an overview of the work that has been done to date on the VIA including the status of visualization studies, site visits, preliminary analyses, and background information on the VIA process. The engineering/project layout for specific solar array locations is still being developed and is not yet finalized. Areas preliminarily being considered for the placement of arrays have been depicted in the enclosed mapping.

In compliance with Article 10 regulations, we are herein requesting your input as part of the Applicant's consultations with local historic preservation groups and Visual Stakeholders (which comprise the Town of Conquest municipal representatives, NYSDPS, NYSDEC, OPRHP, and municipalities within the five-mile viewshed of the Visual Study Area having predicted visibility of the Project) in its selection of important or representative viewpoints that may be subject to Project visibility.

Preliminary visual analyses and site investigations are in progress. The purpose of this letter and the enclosed Progress Report are to:

- Provide the reader with the extent and findings of visibility studies thus far, and

- Request the timely input from local historic groups and Visual Stakeholders in identifying any additional sensitive visual resources important to the community within the Project study area over what is provided herein, and/or,
- Provide an opportunity for the Visual Stakeholders to suggest additional representative and reasonable candidate locations for photo-simulations (before and after depictions of the Project) in areas of their concern. It should be noted this request is confined to areas with public access.

Please review the inventory of visual resources in Table 1 of the Progress Report for completeness.

Please also review the candidate viewpoints listed in Table 2 and shown in Attachments 1 and 2.

If you feel that the identified visual resources and candidate viewpoints provide an adequate representation of the Project for the purposes of preparing the VIA, no further action on your part is necessary. However, if there are other public locations of concern currently not depicted, where you would like to suggest that additional representative photos be taken, or if there are any additional visual resources that are important to note, please provide your comments or feedback, with an explanation of why you feel that location/viewpoint should be included.

Any comments or feedback you may have are **requested by February 12, 2021** and should be sent to the following:

- Via email to Judy Bartos: JBartos@trccompanies.com
- Via email to William Boer: William.Boer@nexteraenergy.com

Thank you for your attention to this request. We appreciate your input and assistance identifying significant sensitive visual areas.

Best regards,

Judy Bartos, Visualization Specialist
TRC Companies, Inc.

650 Suffolk St., Suite 200
Lowell, MA 01854

T 978.970.5600
TRCcompanies.com

January 27, 2021

Michael Kolczynski, Town Supervisor
Town of Savannah, New York
PO Box 296
Savannah, NY 13146

Sent via email to: savannahsuper@tds.net

Subject: Visual Impact Survey Request – Garnet Energy Center

Dear Mr. Kolczynski:

This letter serves as an information request concerning the development of a proposed 200 megawatt solar energy center with a 20 megawatt/4-hour duration energy storage system, the Garnet Energy Center (Project), in the Town of Conquest, Cayuga County, New York, by Garnet Energy Center, LLC (the Applicant), a subsidiary of NextEra Energy Resources, LLC. The Applicant plans to submit an Application to construct a major electric generating facility under Article 10 of the New York Public Service Law (PSL) for the Project.

Specifically, this letter request is in regard to the requirements of Sections 1001.24 b(4) of the New York State Board on Electric Generation Siting and the Environment's (Siting Board) regulations. As required for Exhibit 24, a Visual Impact Assessment (VIA) shall be included in an Article 10 Application to determine the extent and assess the significance of facility visibility. The VIA will, in part, identify sensitive resource areas susceptible to visual changes from the proposed Project and present photographic simulations of the proposed Project's facilities in relation to selected, representative viewpoints. The VIA also supports Exhibit 20, which takes into account sites or structures listed in or eligible for listing in the National or State Register of Historic Places (NRHP/SRHP).

Enclosed with this letter is a progress report on the VIA. It provides an overview of the work that has been done to date on the VIA including the status of visualization studies, site visits, preliminary analyses, and background information on the VIA process. The engineering/project layout for specific solar array locations is still being developed and is not yet finalized. Areas preliminarily being considered for the placement of arrays have been depicted in the enclosed mapping.

In compliance with Article 10 regulations, we are herein requesting your input as part of the Applicant's consultations with local historic preservation groups and Visual Stakeholders (which comprise the Town of Conquest municipal representatives, NYSDPS, NYSDEC, OPRHP, and municipalities within the five-mile viewshed of the Visual Study Area having predicted visibility of the Project) in its selection of important or representative viewpoints that may be subject to Project visibility.

Preliminary visual analyses and site investigations are in progress. The purpose of this letter and the enclosed Progress Report are to:

- Provide the reader with the extent and findings of visibility studies thus far, and

- Request the timely input from local historic groups and Visual Stakeholders in identifying any additional sensitive visual resources important to the community within the Project study area over what is provided herein, and/or,
- Provide an opportunity for the Visual Stakeholders to suggest additional representative and reasonable candidate locations for photo-simulations (before and after depictions of the Project) in areas of their concern. It should be noted this request is confined to areas with public access.

Please review the inventory of visual resources in Table 1 of the Progress Report for completeness.

Please also review the candidate viewpoints listed in Table 2 and shown in Attachments 1 and 2.

If you feel that the identified visual resources and candidate viewpoints provide an adequate representation of the Project for the purposes of preparing the VIA, no further action on your part is necessary. However, if there are other public locations of concern currently not depicted, where you would like to suggest that additional representative photos be taken, or if there are any additional visual resources that are important to note, please provide your comments or feedback, with an explanation of why you feel that location/viewpoint should be included.

Any comments or feedback you may have are **requested by February 12, 2021** and should be sent to the following:

- Via email to Judy Bartos: JBartos@trccompanies.com
- Via email to William Boer: William.Boer@nexteraenergy.com

Thank you for your attention to this request. We appreciate your input and assistance identifying significant sensitive visual areas.

Best regards,

Judy Bartos, Visualization Specialist
TRC Companies, Inc.

650 Suffolk St., Suite 200
Lowell, MA 01854

T 978.970.5600
TRCcompanies.com

January 27, 2021

Michael Wiggins, Town Supervisor
Town of Victory, New York
1323 Town Barn Road
Red Creek, NY 13143

Sent via email to: victorysupervisor@outlook.com

Subject: Visual Impact Survey Request – Garnet Energy Center

Dear Mr. Wiggins:

This letter serves as an information request concerning the development of a proposed 200 megawatt solar energy center with a 20 megawatt/4-hour duration energy storage system, the Garnet Energy Center (Project), in the Town of Conquest, Cayuga County, New York, by Garnet Energy Center, LLC (the Applicant), a subsidiary of NextEra Energy Resources, LLC. The Applicant plans to submit an Application to construct a major electric generating facility under Article 10 of the New York Public Service Law (PSL) for the Project.

Specifically, this letter request is in regard to the requirements of Sections 1001.24 b(4) of the New York State Board on Electric Generation Siting and the Environment's (Siting Board) regulations. As required for Exhibit 24, a Visual Impact Assessment (VIA) shall be included in an Article 10 Application to determine the extent and assess the significance of facility visibility. The VIA will, in part, identify sensitive resource areas susceptible to visual changes from the proposed Project and present photographic simulations of the proposed Project's facilities in relation to selected, representative viewpoints. The VIA also supports Exhibit 20, which takes into account sites or structures listed in or eligible for listing in the National or State Register of Historic Places (NRHP/SRHP).

Enclosed with this letter is a progress report on the VIA. It provides an overview of the work that has been done to date on the VIA including the status of visualization studies, site visits, preliminary analyses, and background information on the VIA process. The engineering/project layout for specific solar array locations is still being developed and is not yet finalized. Areas preliminarily being considered for the placement of arrays have been depicted in the enclosed mapping.

In compliance with Article 10 regulations, we are herein requesting your input as part of the Applicant's consultations with local historic preservation groups and Visual Stakeholders (which comprise the Town of Conquest municipal representatives, NYSDPS, NYSDEC, OPRHP, and municipalities within the five-mile viewshed of the Visual Study Area having predicted visibility of the Project) in its selection of important or representative viewpoints that may be subject to Project visibility.

Preliminary visual analyses and site investigations are in progress. The purpose of this letter and the enclosed Progress Report are to:

- Provide the reader with the extent and findings of visibility studies thus far, and

- Request the timely input from local historic groups and Visual Stakeholders in identifying any additional sensitive visual resources important to the community within the Project study area over what is provided herein, and/or,
- Provide an opportunity for the Visual Stakeholders to suggest additional representative and reasonable candidate locations for photo-simulations (before and after depictions of the Project) in areas of their concern. It should be noted this request is confined to areas with public access.

Please review the inventory of visual resources in Table 1 of the Progress Report for completeness.

Please also review the candidate viewpoints listed in Table 2 and shown in Attachments 1 and 2.

If you feel that the identified visual resources and candidate viewpoints provide an adequate representation of the Project for the purposes of preparing the VIA, no further action on your part is necessary. However, if there are other public locations of concern currently not depicted, where you would like to suggest that additional representative photos be taken, or if there are any additional visual resources that are important to note, please provide your comments or feedback, with an explanation of why you feel that location/viewpoint should be included.

Any comments or feedback you may have are **requested by February 12, 2021** and should be sent to the following:

- Via email to Judy Bartos: JBartos@trccompanies.com
- Via email to William Boer: William.Boer@nexteraenergy.com

Thank you for your attention to this request. We appreciate your input and assistance identifying significant sensitive visual areas.

Best regards,

Judy Bartos, Visualization Specialist
TRC Companies, Inc.

650 Suffolk St., Suite 200
Lowell, MA 01854

T 978.970.5600
TRCcompanies.com

January 27, 2021

Andrew Davis, Utility Supervisor- Environmental
NYS Department of Public Service
#3 Empire State Plaza
Albany, NY 12223

Sent via email to: Andrew.davis@dps.ny.gov

Subject: Visual Impact Survey Request – Garnet Energy Center

Dear Mr. Davis:

This letter serves as an information request concerning the development of a proposed 200 megawatt solar energy center with a 20 megawatt/4-hour duration energy storage system, the Garnet Energy Center (Project), in the Town of Conquest, Cayuga County, New York, by Garnet Energy Center, LLC (the Applicant), a subsidiary of NextEra Energy Resources, LLC. The Applicant plans to submit an Application to construct a major electric generating facility under Article 10 of the New York Public Service Law (PSL) for the Project.

Specifically, this letter request is in regard to the requirements of Sections 1001.24 b(4) of the New York State Board on Electric Generation Siting and the Environment's (Siting Board) regulations. As required for Exhibit 24, a Visual Impact Assessment (VIA) shall be included in an Article 10 Application to determine the extent and assess the significance of facility visibility. The VIA will, in part, identify sensitive resource areas susceptible to visual changes from the proposed Project and present photographic simulations of the proposed Project's facilities in relation to selected, representative viewpoints. The VIA also supports Exhibit 20, which takes into account sites or structures listed in or eligible for listing in the National or State Register of Historic Places (NRHP/SRHP).

Enclosed with this letter is a progress report on the VIA. It provides an overview of the work that has been done to date on the VIA including the status of visualization studies, site visits, preliminary analyses, and background information on the VIA process. The engineering/project layout for specific solar array locations is still being developed and is not yet finalized. Areas preliminarily being considered for the placement of arrays have been depicted in the enclosed mapping.

In compliance with Article 10 regulations, we are herein requesting your input as part of the Applicant's consultations with local historic preservation groups and Visual Stakeholders (which comprise the Town of Conquest municipal representatives, NYSDPS, NYSDEC, OPRHP, and municipalities within the five-mile viewshed of the Visual Study Area having predicted visibility of the Project) in its selection of important or representative viewpoints that may be subject to Project visibility.

Preliminary visual analyses and site investigations are in progress. The purpose of this letter and the enclosed Progress Report are to:

- Provide the reader with the extent and findings of visibility studies thus far, and

- Request the timely input from local historic groups and Visual Stakeholders in identifying any additional sensitive visual resources important to the community within the Project study area over what is provided herein, and/or,
- Provide an opportunity for the Visual Stakeholders to suggest additional representative and reasonable candidate locations for photo-simulations (before and after depictions of the Project) in areas of their concern. It should be noted this request is confined to areas with public access.

Please review the inventory of visual resources in Table 1 of the Progress Report for completeness.

Please also review the candidate viewpoints listed in Table 2 and shown in Attachments 1 and 2.

If you feel that the identified visual resources and candidate viewpoints provide an adequate representation of the Project for the purposes of preparing the VIA, no further action on your part is necessary. However, if there are other public locations of concern currently not depicted, where you would like to suggest that additional representative photos be taken, or if there are any additional visual resources that are important to note, please provide your comments or feedback, with an explanation of why you feel that location/viewpoint should be included.

Any comments or feedback you may have are **requested by February 12, 2021** and should be sent to the following:

- Via email to Judy Bartos: JBartos@trccompanies.com
- Via email to William Boer: William.Boer@nexteraenergy.com

Thank you for your attention to this request. We appreciate your input and assistance identifying significant sensitive visual areas.

Best regards,

Judy Bartos, Visualization Specialist
TRC Companies, Inc.

Garnet Solar Visual Study
Case: 20-F-0043
DPS Staff Comments
February 10, 2021

As requested in the Visual Study: *"Please review the inventory of visual resources in Table 1 of the Progress Report for completeness."*

Comments:

3.5 Visual Analysis

The following information regarding the viewshed model is supplied in this section. (From Paragraph 2) "*LiDAR data is the best available elevation data as it includes high resolution accurate ground elevations in addition to building heights and individual tree heights that offer realistic physical visual impediments as they occur in the landscape*." (From Paragraph 3) "*The viewshed model accounts for topography, vegetation, buildings, and as noted in Section 2.0, the maximum height of the solar arrays were set at 18 feet above ground surface*." DPS Staff notes that there is not one resource in Table 1 that has Project visibility. The visual study does not supply maps without vegetation, and these are important because the model cannot predict leaf-off conditions (as noted in bullet no. 3), "*The viewshed model assumes that any vegetation is opaque and therefore represents a leaf-on condition*."

- DPS advises that the OPRHP has issued guidance regarding visual effects consideration for Historic Resources and requests that, among other details, studies of visual effects on historic resources should address SHPO recommendations and be based on topographic viewshed data rather than including vegetation.

General Comments:

The resource location Table 1 – Preliminary Inventory of Visual Resources – does not indicate the Landscape Similarity Zone (LSZ) for the viewpoints. DPS suggests that the VIA should address all relevant LSZs in the analysis and viewpoint selection.

<u>Local Parks & Recreation</u>

1. Mott Park, Cato
2. Whitford's Airport, Weedsport
    a. Skydive CNY (based out of Whitford's Airport http://www.skydivecny.com/information.asp?page=airport

3. Eagles Landing Marina

<u>Lakes & Boat Launches</u>

1. Erie Canal http://www.ilovethefingerlakes.com/recreation/boating-launches-cayuga.htm

a. (C) Town of Brutus on Bonta Rd. just south of bridge over canal. Car-top launch only. Parking for 10 vehicles.
(C) Town of Mentz on Rt. 38 near bridge over canal. Car-top launch only. Parking for 10 vehicles.
(C) Town of Conquest on Howland Island Rd. near bridge over canal. Concrete ramp. Parking for 20 vehicles.

Bikeways, Trails & Waterways

https://www.cayugacounty.us/479/Trails

1. Cato-Fair Haven Trail
2. Village of Weedsport (Erie Canal Trail)

Snowmobile Trails

1. Cayuga County Snowmobile Association
https://www.cayugacounty.us/DocumentCenter/View/1431/Snowmobile-2017-2018-PDF
    a. State-Funded Corridor A Trail
    b. State-Funded Secondary A Trail

As requested in the Visual Study: *"Please also review the candidate viewpoints listed in Table 2 and shown in Attachments 1 and 2."*

General Comments:

- The candidate viewpoints listed in Table 2 and the Attachment 2 Photolog should state on all photos and tables if there is Project visibility from the given locations as this is very important in selecting photos for simulations. The viewshed model in the maps provided accounts for topography, vegetation and buildings with the vegetation being shown in leaf-on conditions, which is not an accurate representation of year-round conditions. DPS staff requests that maps without vegetation be provided with photo locations shown for viewpoint selection. Without having such a map, it is difficult for DPS to recommend other photo locations at this point and staff requests a map with these conditions at the Applicant's earliest convenience.
- DPS staff recommends that photo locations for simulations represent all LSZs and distance zones with Project visibility.
- DPS staff advises that a leaf-off and leaf-on photo simulation be provided for each location where mitigation plantings are planned to be installed for Project mitigation.
    - DPS staff notes that photos for simulations were taken in September and November. Assuming September photos represent leaf-on and November photos represent leaf-off conditions, all November photos in the Agriculture LSZ shall have harvested crops if used for leaf-off conditions. Also, there are not duplicate photos at the same location for leaf-on and leaf-off photos in September and November and several of the September photos have trees with full leaf conditions that would not be sufficient for leaf-off simulations. DPS advises if any of these locations will be used for simulations that new photos be provided in true leaf-off conditions.
- DPS staff advises that photo viewpoint maps should have a visibility layer included.

- Photos for simulations should have Project visibility and based on the information provided in the visual study, DPS staff recommend the following viewpoints:
    - Viewpoints 4, 6-7 (LSZ 1,3)
    - Viewpoints 12, 18 (LSZ 1), 13 (LSZ 1,3), 14-17, 19-20 (LSZ 1,3)
    - Viewpoints 32 (LSZ 1) – 33 (LSZ 3,4)
    - Viewpoints 42 (LSZ 1) – 43 (LSZ 1,3) or potentially slightly north-west where there is visibility
    - Viewpoints 47 (LSZ 1,2), 49 (LSZ 2,3)
    - From the maps provided, there does not appear to be any open water sites that have visibility, and again, DPS staff recommends that all LSZs be represented and distance zones if there is visibility.

650 Suffolk St., Suite 200
Lowell, MA 01854

T 978.970.5600
TRCcompanies.com

January 27, 2021

Matthew Marko, Regional Director
NYS Department of Environmental Conservation Region 7 Office
615 Erie Blvd. West
Syracuse, NY 13204

Sent via email to: dep.r7@dec.ny.gov

Subject: Visual Impact Survey Request – Garnet Energy Center

Dear Mr. Marko:

This letter serves as an information request concerning the development of a proposed 200 megawatt solar energy center with a 20 megawatt/4-hour duration energy storage system, the Garnet Energy Center (Project), in the Town of Conquest, Cayuga County, New York, by Garnet Energy Center, LLC (the Applicant), a subsidiary of NextEra Energy Resources, LLC. The Applicant plans to submit an Application to construct a major electric generating facility under Article 10 of the New York Public Service Law (PSL) for the Project.

Specifically, this letter request is in regard to the requirements of Sections 1001.24 b(4) of the New York State Board on Electric Generation Siting and the Environment's (Siting Board) regulations. As required for Exhibit 24, a Visual Impact Assessment (VIA) shall be included in an Article 10 Application to determine the extent and assess the significance of facility visibility. The VIA will, in part, identify sensitive resource areas susceptible to visual changes from the proposed Project and present photographic simulations of the proposed Project's facilities in relation to selected, representative viewpoints. The VIA also supports Exhibit 20, which takes into account sites or structures listed in or eligible for listing in the National or State Register of Historic Places (NRHP/SRHP).

Enclosed with this letter is a progress report on the VIA. It provides an overview of the work that has been done to date on the VIA including the status of visualization studies, site visits, preliminary analyses, and background information on the VIA process. The engineering/project layout for specific solar array locations is still being developed and is not yet finalized. Areas preliminarily being considered for the placement of arrays have been depicted in the enclosed mapping.

In compliance with Article 10 regulations, we are herein requesting your input as part of the Applicant's consultations with local historic preservation groups and Visual Stakeholders (which comprise the Town of Conquest municipal representatives, NYSDPS, NYSDEC, OPRHP, and municipalities within the five-mile viewshed of the Visual Study Area having predicted visibility of the Project) in its selection of important or representative viewpoints that may be subject to Project visibility.

Preliminary visual analyses and site investigations are in progress. The purpose of this letter and the enclosed Progress Report are to:

- Provide the reader with the extent and findings of visibility studies thus far, and

- Request the timely input from local historic groups and Visual Stakeholders in identifying any additional sensitive visual resources important to the community within the Project study area over what is provided herein, and/or,
- Provide an opportunity for the Visual Stakeholders to suggest additional representative and reasonable candidate locations for photo-simulations (before and after depictions of the Project) in areas of their concern. It should be noted this request is confined to areas with public access.

Please review the inventory of visual resources in Table 1 of the Progress Report for completeness.

Please also review the candidate viewpoints listed in Table 2 and shown in Attachments 1 and 2.

If you feel that the identified visual resources and candidate viewpoints provide an adequate representation of the Project for the purposes of preparing the VIA, no further action on your part is necessary. However, if there are other public locations of concern currently not depicted, where you would like to suggest that additional representative photos be taken, or if there are any additional visual resources that are important to note, please provide your comments or feedback, with an explanation of why you feel that location/viewpoint should be included.

Any comments or feedback you may have are **requested by February 12, 2021** and should be sent to the following:

- Via email to Judy Bartos: JBartos@trccompanies.com
- Via email to William Boer: William.Boer@nexteraenergy.com

Thank you for your attention to this request. We appreciate your input and assistance identifying significant sensitive visual areas.

Best regards,

Judy Bartos, Visualization Specialist
TRC Companies, Inc.

650 Suffolk St., Suite 200
Lowell, MA 01854

T 978.970.5600
TRCcompanies.com

January 27, 2021

James Finelli
NYS Office of Parks, Recreation and Historic Preservation, Finger Lakes Region
2221 Taughannock Road
Trumansburg, NY 14886

Sent via email to: James.Finelli@parks.ny.gov

Subject: Visual Impact Survey Request – Garnet Energy Center

Dear Mr. Finelli:

This letter serves as an information request concerning the development of a proposed 200 megawatt solar energy center with a 20 megawatt/4-hour duration energy storage system, the Garnet Energy Center (Project), in the Town of Conquest, Cayuga County, New York, by Garnet Energy Center, LLC (the Applicant), a subsidiary of NextEra Energy Resources, LLC. The Applicant plans to submit an Application to construct a major electric generating facility under Article 10 of the New York Public Service Law (PSL) for the Project.

Specifically, this letter request is in regard to the requirements of Sections 1001.24 b(4) of the New York State Board on Electric Generation Siting and the Environment's (Siting Board) regulations. As required for Exhibit 24, a Visual Impact Assessment (VIA) shall be included in an Article 10 Application to determine the extent and assess the significance of facility visibility. The VIA will, in part, identify sensitive resource areas susceptible to visual changes from the proposed Project and present photographic simulations of the proposed Project's facilities in relation to selected, representative viewpoints. The VIA also supports Exhibit 20, which takes into account sites or structures listed in or eligible for listing in the National or State Register of Historic Places (NRHP/SRHP).

Enclosed with this letter is a progress report on the VIA. It provides an overview of the work that has been done to date on the VIA including the status of visualization studies, site visits, preliminary analyses, and background information on the VIA process. The engineering/project layout for specific solar array locations is still being developed and is not yet finalized. Areas preliminarily being considered for the placement of arrays have been depicted in the enclosed mapping.

In compliance with Article 10 regulations, we are herein requesting your input as part of the Applicant's consultations with local historic preservation groups and Visual Stakeholders (which comprise the Town of Conquest municipal representatives, NYSDPS, NYSDEC, OPRHP, and municipalities within the five-mile viewshed of the Visual Study Area having predicted visibility of the Project) in its selection of important or representative viewpoints that may be subject to Project visibility.

Preliminary visual analyses and site investigations are in progress. The purpose of this letter and the enclosed Progress Report are to:

- Provide the reader with the extent and findings of visibility studies thus far, and

- Request the timely input from local historic groups and Visual Stakeholders in identifying any additional sensitive visual resources important to the community within the Project study area over what is provided herein, and/or,
- Provide an opportunity for the Visual Stakeholders to suggest additional representative and reasonable candidate locations for photo-simulations (before and after depictions of the Project) in areas of their concern. It should be noted this request is confined to areas with public access.

Please review the inventory of visual resources in Table 1 of the Progress Report for completeness.

Please also review the candidate viewpoints listed in Table 2 and shown in Attachments 1 and 2.

If you feel that the identified visual resources and candidate viewpoints provide an adequate representation of the Project for the purposes of preparing the VIA, no further action on your part is necessary. However, if there are other public locations of concern currently not depicted, where you would like to suggest that additional representative photos be taken, or if there are any additional visual resources that are important to note, please provide your comments or feedback, with an explanation of why you feel that location/viewpoint should be included.

Any comments or feedback you may have are **requested by February 12, 2021** and should be sent to the following:

- Via email to Judy Bartos: JBartos@trccompanies.com
- Via email to William Boer: William.Boer@nexteraenergy.com

Thank you for your attention to this request. We appreciate your input and assistance identifying significant sensitive visual areas.

Best regards,

Judy Bartos, Visualization Specialist
TRC Companies, Inc.

GARNET ENERGY CENTER
ARTICLE 10 EXHIBIT 24

PHOTOSIMULATION CONTRAST RATING

ATTACHMENT 6

TRC Visual Impact Rating Form

This form is a simplified version of various federal agency visual impact rating systems. It includes concepts and applications sourced from:

- U.S. Bureau of Land Management (BLM), Handbook H-8431: Visual Contrast Rating, January 1986
- Visual Resources Assessment Procedure For U.S. Army Corps Of Engineers, March 1988
- National Park Service Visual Resources Inventory View Importance Rating Guide, 2016
- USDA Forest Service (USFS), United States Department of Agriculture Forest Service, Landscape Aesthetics: A Handbook for Scenery Management. USDA Forest Service Agriculture Handbook No. 701, 1995

Depending on the project location, a variety of visual impact assessment (VIA) guidance and established procedures exist as noted above that apply to management of federal lands that fall under a specific agency such as the U.S. Forest Service or Bureau of Land Management. These guidance documents vary in regards to agency specific rating systems or procedures and often begin with the evaluation of existing conditions such as scenic quality or presence of sensitive resource locations.

This form has been developed by TRC for efficient and streamlined use with projects that undergo state environmental permitting processes. It is assumed that visual resource inventories, terrain analyses, development of landscape similarity zones or viewshed analyses have already been performed in the project VIA according to state regulatory requirements or other visual policy. This form was developed to be used as a numerical rating system for the comparison of Existing Conditions (Before) vs. With Project (After) photosimulations of final selected viewpoint locations and is meant to accompany the project VIA.

1. How to Use the Visual Impact Rating Form

For evaluating visual impacts there are two parts to the form. Part 1 is *Visual Contrast Rating* which rates the Project as it contrasts against compositional visual elements of the viewpoint scene. This includes compositional contrasts against the existing and natural environment such as vegetation, water, sky, landform, or structures. The higher the rating total the higher the contrast. Part 2 is *Viewpoint Sensitivity Rating*. This section rates the sensitivity of the viewpoint location which inherently considers the importance of the viewpoint (if it falls within a visual resource area), duration of view, if it is a high use area, as well as general scenic quality. The higher the rating total, the more sensitive the viewpoint is. Part 3 is an overall *General Scenic Quality of the View* which rates the view of existing conditions only without the influence of the project.

The rating scale is as follows:

Rating Scale	
0	None
0.5	
1	Weak
1.5	
2	Moderate
2.5	
3	Strong

1.1. Degree of Contrast Criteria

None The element contrast is not visible or perceived.

Weak The element contrast can be seen but does not attract attention.

Moderate The element contrast begins to attract attention and begins to dominate the characteristic landscape.

Strong The element contrast demands attention, will not be overlooked, and is dominant in the landscape.

2. Part 1 Visual Contrast Rating

Form Contrast: Form in this sense generally means the shape of an object or unification of shapes massed together by perceived pattern or color. In many rural undeveloped areas, the landscape may consist of homogenous or visually restful views of large shapes or shapes of color belonging to expanses of open field or forested areas. New project elements may provide a contrast or interruption against existing homogenous shapes within the view (strong). Conversely, there may be much visual existing clutter comprised of multiform shapes found in developed or urban areas where newly introduced project elements may better be visually absorbed in the view (weak).

Line Contrast: Line generally refers to the perceived edges of shapes as well as the orientation of these line edges. An undeveloped area at distance may be mostly horizontal line comprised of distant ridges or forest treetops as well as forest and field interfaces. New project elements may disrupt some of the line or they may introduce new vertically oriented lines as such as from a transmission line or wind farm (strong).

Texture Contrast: Trees and their leaves or buildings at close proximity will offer higher detail (strong). Texture and the level of discernible detail decreases with distance (weak). Objects at distance may appear as one homogenous texture or shape.

Color Contrast: Does the project color contrast greatly against color in the existing view (strong)? Color contrast may occur with the terrestrial background or the sky.

Project Scale Contrast/Spatial Dominance: Is the project size and scale dominant (strong), co-dominant, or subordinate (weak) in the view in relation to the rest of the surroundings?

Broken Horizon Line: Does the project remain below the horizon line (weak) or is the horizon line broken by project elements (strong)?

Visual Acuity: Visual acuity is the acuteness or clarity of vision, most often related to the amount of discernible detail or contrast with distance. Atmospheric conditions may also decrease visual acuity, especially on hazy humid days.

Amount of Project Clearing Perceived: The With Project (After) simulation may show extensive clearing that has occurred compared to existing conditions, thereby showing a large visual change from the project (strong). In many cases, no clearing is required (none), or minimal clearing might be seen from a viewpoint location (weak or moderate).

Screening/Mitigation Needed: This category is treated in two ways. 1) Is the project at a particular viewpoint seen because of being mostly in the open which would require some type of vegetative or structural mitigation (strong) to obscure direct views? Conversely, is there some type of existing screening that blocks partial or whole views such as trees, buildings, or topography that act as visual impediments in the landscape (weak). Or 2) How important is it to mitigate at a certain area or how high is the visual absorption capacity? For example, there may be a clear unobstructed view of a new transmission structure in the view, but if there are existing transmission poles or cell towers, or distribution lines along the street in a more urban area providing similar utility development it may not be necessary to mitigate (weak). Is a substation being proposed where there is a clear view but within industrial development (weak)? Or, there may be visible modifications to an existing substation but proposed elements are visually absorbed by the substation because of "like" components and thereby requires no mitigation (weak).

3. Part 2 Viewpoint Sensitivity Rating

Within a Visual Resource: Is the viewpoint located within a visual resource as listed in the Visual Resources Inventory section of the VIA? This is a yes or no question, therefore either a rating 0 (none) or 3 (strong) should be applied. If yes, then viewer expectations and sensitivity may be higher.

View of Other Visual Resources: Can you see a visual resource listed in the Visual Resources Inventory from the viewpoint location in combination with the project? This is a yes or no question, therefore either a rating 0 (none) or 3 (strong) should be applied.

A Listed/Known Scenic Resource of Visual Quality: Is the viewpoint located within a listed or known scenic area of visual quality? This is a yes or no question, therefore either a rating 0 (none) or 3 (strong) should be applied. If yes, this location would also be identified as a visual resource as listed in the Visual Resources Inventory section of the VIA. It is evaluated in the Viewpoint Sensitivity Rating because there are often town by-laws, master plans, or regional planning documents that call out specifically named locations that have been designated as a scenic viewing area and is important to note. It means that the location has added importance to the community and if yes, then viewer expectations and sensitivity are likely higher. This will be used infrequently.

Number of Viewers/High Use Activity: An area of high use and high number of viewer will incur a greater amount of visual impact to the community (strong). These areas may consist of high destination type locales visited by the public such as recreational areas, shopping centers, densely populated areas, or highways with large traffic counts. A roadway may not always be considered as high use. There may be viewpoints along local rural roadways that have relatively very low traffic counts. This category accounts for the immediate vicinity. For example the simulation might only show a roadway, but a resident may be very nearby or behind the viewer.

Duration of View: The duration of views is categorized as Long Duration (strong), Short Duration (weak) or Infrequent (weak). Residents or workers with views from the workplace or day long use at a picnic area would be a long duration view. Short duration views imply movement and are transient, such as passing the site on a highway, glimpsing a project from an open area on a hiking or snowmobile trail. A moderate duration view might be a destination type location such as a summit or historic landmark where the visitor seeks the location with purpose but only stays for a few hours. However care must be taken

when attributing an area to a short duration view. There could be short duration views encountered frequently over distance, such as a snowmobile trail.

Presence of Existing Development: For this category we are looking at intactness and how much the landscape has been altered by the presence of people. Is there much existing development consisting of commercial, utility, or industrial development or densely populated residential or urban neighborhoods in the photo or near vicinity? If so, then the sense of place or importance may be diminished and decreases viewer sensitivity as a place that does not have high value and should be rated as weak. Conversely, the lack of existing development contributes to the intactness of a more undisturbed natural environment a gives a sense of greater value. However, development is not all negative. Some development may have altered the environment but has only "somewhat" changed the view over time and may not be as visually impactful, such as a farm and associated farm fields. In this case, the Presence of Existing Development could be rated as moderate.

Uniqueness of Landscape Compared to Rest of Study Area: Photographs for project simulations are generally taken within a designated study area. Landscape features or scenic quality in the study area shown in simulations may be found to be consistently similar or unvaried (weak). If the viewpoint shows a view that is unique to the area such as an outstanding water feature, a series of dramatic cliffs, or mountain views not typically found elsewhere in the vicinity then it should be rated as strong.

Presence of Water: Generally the presence of water implies greater scenic quality or importance. This is a yes or no question, therefore either a rating 0 (none) or 3 (strong) should be applied. If there is the presence of water and it is not very discernible in the view, then a rating of 2 (moderate) can be applied.

4. Part 3 Scenic Quality of the View

This section rates existing conditions only, without the influence of the project.

Each landscape expresses unique scenic qualities. Scenic attractiveness indicates the potential of a landscape to produce varying degrees of satisfaction, of positive physiological responses; such as reduced stress; positive psychological responses; and a general feeling of well-being.

Please consider the following when assessing existing scenic quality:

- Note that a higher rating of scenic quality does not always have to be within natural or rural environments. This can also occur within urban or other man-made cultural type environments that consist of pleasing building structures, hardscaping, or landscaping.

- Landscape Diversity. The degree of existing scenic quality is usually correlated with landscape diversity – the more natural diversity, generally, the greater the scenic quality. For example, landscapes with greater diversity in vegetation and topography are more likely to be scenic than flat landscapes with uniform vegetation. Water features such as rivers or ponds tend to add diversity as do natural rock outcroppings. High scenic quality often results from the contrast among landscape features such as field and forest, steep and flat or rolling, village and countryside.

- Intactness. Another relevant factor in determining scenic quality is the intactness of the landscape. A lack of landscape degradation contributes to the "intactness" of the landscape. Landscapes where there is a clear underlying order or logic tend to be more visually appealing. Natural landscapes exhibiting little evidence of human alteration (e.g. an intact prairie landscape) are likely to have high visual as well as natural value. In the human (built) landscapes too much diversity can lead to visual chaos or clutter, for example strip development in which every business vies for one's attention by looking different from its neighbor. But landscapes which retain 19th early 20th century landscape patterns, places with split-rail fencing or stone walls are often visually appealing in their simplicity and clear connections of use to the land itself.

- Focal Point. Focal points are elements in the landscape that stand out due to their contrasting shape (form), color or pattern. Often distinct focal points enhance scenic quality. They can be natural elements such as a lake, river or mountain; or they can be built elements such as an important public building, or a central green.

- Unity in a landscape provides a sense of order.

- Vividness is related to variety as well as contrast adding clearly defined visual interest.

- Coherence describes the ability of a landscape to be seen as intelligible rather than chaotic.

- Harmony exhibits a combination of parts of a landscape into a pleasing or orderly whole and a state of agreement, congruity, or proportionate arrangement of form, line, color, and texture.

- Pattern includes pleasing repetitions and configurations of line, form, color, or textures.

- *Strong values* might consist of areas where landform, vegetation patterns, water characteristics, and cultural features combine to have unique and strong positive attributes of variety, unity, vividness, mystery, intactness, order, harmony, uniqueness, pattern, and balance.

- *Moderate values* are generally areas where landform, vegetation patterns, water characteristics, and cultural features use combine to provide ordinary or common scenic quality. These landscapes have generally positive, yet common, attributes of variety, unity, vividness, mystery, intactness, order, harmony, uniqueness, pattern, and balance. Normally they would form the basic typical matrix within the study area.

- Weak values are areas where landform, vegetation patterns, water characteristics, and cultural land use have lower scenic quality. Often water and rockform of any consequence are missing in these landscapes. These landscapes have weak or missing attributes of variety, unity, vividness, mystery, intactness, order, -harmony, uniqueness, and balance.

5. Assessing the Outcome of the Rating

The rating system and those developed by the other aforementioned agencies are designed to guide a subjective process (visual observation) objectively, by using straightforward common language that involves the discussion of compositional elements. A rating system is applied from low to high with the intent to provide consistent comparison between or across subject matter.

The simulations will show varying distance zones and landscape zones. The rating is also meant to provide comparison of the project within these zones as seen across the study area. The rating form is not meant as a public survey or to assess or appeal to how one feels about the development at a more emotional level.

However, it should be noted that when evaluating the outcome of the ratings, a high rating of form or texture contrast for example, does not necessarily imply a negative or disturbing result. Nor may the project be offensive to the average person. As well, there may be visual impacts implied by the rating forms but they may not be adverse.

In many cases the building design or choice of building material can be aesthetic and visually pleasing to the viewer and/or remain consistent with other development in the area. With utility development for example, a battery storage facility that may have a high texture, line, or form rating that is proposed within a seaside environment may incorporate weathered cedar shakes, white trim, and dormers into the building design in order to remain similar to cape style houses in the area. Although compositionally it may have a high contrast rating against what is currently there, the project may be considered to be aesthetically pleasing and interesting to look at. Similarly, a converter building project in a rural area may elect to design the building to look like a red barn. Although the proposed building may provide a large form with new vertical elements against the current landscape, and its red color may contrast highly against either green vegetation or white winter snow, the design choice of a red barn could be considered aesthetically pleasing and suitable while also remaining consistent with other large development (farms) in the area. Or perhaps there are brick materials proposed as building materials or hardscape for a project which could be considered aesthetically pleasing and visually interesting. In the case of solar development, although a solar panel could provide color contrast, the look of a solar panel itself may not be displeasing. Although basic solar panel design cannot be changed, the project can be combined with vegetative mitigation of native flowering and pollinator species implemented and spaced in a naturalized manner resulting in overall aesthetic and interesting landscape screening.

The rating forms are not standalone nor are results provided without context. The rating results are typically accompanied by a summary discussion that considers project design aspects as noted in the above examples as well as how the overall project fits within the landscape.

TRC Visual Impact Rating Form

Project: Garnet Energy Center	Date: April 21, 2021
Viewpoint Number: VP4b	Preparer: J Bartos
Viewpoint Location: Slayton Road	
Viewpoint Description: view southwest at eastern side of Project near resident	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2.5	New form introduced into landscape
Line Contrast	2	New line but is compatible with other horizontal lines in view
Texture Contrast	2	Arrays show smoothness compared to vegetated surroundings but is somewhat compatible with farm in background. Combination of arrays show a different kind of texture overall from existing field.
Color Contrast	3	Arrays are darker in contrast to surroundings
Project Scale Contrast/Spatial Dominance	2	Horizon line is slightly interrupted. Size appearance of arrays is different depending on which object in view you are comparing it to. Project does not appear to overwhelm but be codominant in view.
Broken Horizon Line	1.5	slightly
Visual Acuity	2	Level of discernible detail is moderate
Amount of Project Clearing Seen	0.5	Project clearing noted in background trees but does not appear to severely impact the view.
Screening/Mitigation Needed	2.5	Yes, although Project seems to fit in the landscape also.
Total	**18**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1	Mostly motorists on a rural road but a couple of nearby residents.
Duration of View	2	This VP is taken from a motorist perspective. Short intermittent views for motorists. However there are nearby residents that will have longer duration views. Therefore, neither weak nor strong
Presence of Existing Development	1.5	Farm resident in background. Distribution line along road
Uniqueness of Landscape Compared to Region	1	Typical of areas
Presence of Water	0	
Total	**5.5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**2**	

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Garnet Energy Center	Date:4/22/21
Viewpoint Number: VP4B	Preparer: Michael Ross
Viewpoint Location: Slayton Road	
Viewpoint Description:	
Landscape Similarity Zone:	
Viewer Type (check all that apply): ☐ Resident ☐ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☐ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2	The man-made structure of the farm and the road in the image help to tie the solar panels into a more accepted context making them feel less "out of place" however the shapes of the panels in such close proximity in this image does create contrast.
Line Contrast	1.5	The roof lines of the farm structures, the road, and proposed fence line help to pull focus away from the contrast created by the lines of the solar arrays.
Texture Contrast	1.5	The large man-made solar panels contrast with the natural vegetation however, the road and farm structures help reduce contrast somewhat.
Color Contrast	1.5	The hard-black panels contrast with the existing earth tone, autumn, and green colors found in the landscape however, the asphalt color of the road helps to soften the impact.
Project Scale Contrast/Spatial Dominance	2	Close distance in the view allow for the size and scale of the panels to create contrast and overall visual impact.
Broken Horizon Line	2	Approximately 50 percent of the horizon line is broken in this view by the panels.
Visual Acuity	2	A good bit of discernable details of the solar panels and fence line are present in this view.
Amount of Project Clearing Seen	1	Some clearing can be identified off in the distance in this view.
Screening/Mitigation Needed	2.5	The panels are visible from this location. Therefore, appropriate visual mitigation/screening efforts will be needed to mitigate views.
Total	**16**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	Minimal residential structures are present in this area however, increased views will occur by vehicles and passersby utilizing the roadway which is adjacent to the solar arrays.
Duration of View	1.5	Although minimal residential structures appear to be present, long-term duration of views will most likely occur from these structures/properties. Conversely, short-term views will occur by vehicular travel and passersby utilizing the roadway however, because the solar arrays are in close proximity to the road the impacts during short-term views will increase.
Presence of Existing Development	1	Several residential structures are present in this area.
Uniqueness of Landscape Compared to Region	1	The landscape appears to be representative of the area.
Presence of Water	0	No presence of water is discernable in this view.
Total	**5**	

Part 3 Scenic Quality		
General Scenic Quality of the View	**1**	The view seems average and typical for this area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Garnet Energy Center	Date: 20210430
Viewpoint Number: VP4B	Preparer: Corban McElroy
Viewpoint Location: Slayton Road	
Viewpoint Description:	
Landscape Similarity Zone:	
Viewer Type (check all that apply): ☐ Resident ☐ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☐ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2	The large dark massing of panels are close to the viewer extending southwest towards the farmhouse is partially screened with light color existing vegetation. The dark asphalt road parallels the installation and guides the eye past the farmhouse.
Line Contrast	2	New horizontal and semi vertical lines are introduced with the panel arrays and security fence which create linear features that extend from the foreground to the farmhouse.
Texture Contrast	2.5	The natural shape of vegetation in the fore ground creates strong contrast with the angular man-made shapes of the panels that extend three quarters of the way across the view.
Color Contrast	2	Light colored sky and vegetation strongly contrast with the dark solar panels and the asphalt of the road. The tall coniferous trees in the background help to anchor the dark massing of the panels in the distance.
Project Scale Contrast/Spatial Dominance	1.5	The project footprint is codominant in the image frame balanced with the grass massing and the road.
Broken Horizon Line	2	The project panels are breaking the horizon line for approximately 50 percent of the view from the farmhouse to the west.
Visual Acuity	2	The understructures of the panels are close enough to be clear.
Amount of Project Clearing Seen	1.5	There is moderate project clearing in this view.
Screening/Mitigation Needed	2.5	With removal of the trees near the road, the existing vegetation should be supplemented to create additional screening for views from the road and farm homes.
Total	**18**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	No
View of Other Visual Resource with Project*	0	No
A Listed/Known Scenic Resource of Visual Quality*	0	No
Number of Viewers (Low or High Use Activity)	.5	This view is on a low traffic count rural route with only one residence to the north east in the immediate vicinity.
Duration of View	2	This view would mostly be seen by travels on the rural farm route and for very short periods of time,
Presence of Existing Development	2	There is an existing farmhouse with outbuildings, farm fields, a road and utility lines.
Uniqueness of Landscape Compared to Region	1	This is indicative of the typical setting in a rural area with rolling hills and farmland.
Presence of Water	0	There is no water present in this view.
Total	5.5	

Part 3 Scenic Quality		
General Scenic Quality of the View	**2**	The scene of an open farm filed with distant tree line and a farmhouse has a highly coherence with intact values with low diversity.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Garnet Energy Center	Date: April 21, 2021
Viewpoint Number: VP7	Preparer: J Bartos
Viewpoint Location: Drake Road	
Viewpoint Description: view southwest at eastern side of Project near resident	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2	New form introduced into landscape but seems to be somewhat compatible
Line Contrast	1.5	New line but is mimics and is compatible with horizontal aspects of topography and background trees
Texture Contrast	1.5	While the arrays provide a texture on their own they actually minimize and make the view appear more consistent than the visual clutter and bright objects of existing conditions.
Color Contrast	2	Arrays are darker but are somewhat visually absorbed by the presence of darker background trees.
Project Scale Contrast/Spatial Dominance	2	Size appearance of arrays is different depending on which object in view you are comparing it to. Project does not appear to overwhelm but be codominant in view.
Broken Horizon Line	1	Slightly. Much of the Project is below treeline.
Visual Acuity	2	Level of discernible detail is moderate. Fence is noted as well as back of panels
Amount of Project Clearing Seen	0	Project clearing noted in background trees but does not appear to severely impact the view.
Screening/Mitigation Needed	2.5	Yes
Total	**14.5**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1	Mostly motorists on a rural road but a couple of nearby residents.
Duration of View	2	This VP is taken from a motorist perspective. Short intermittent views for motorists. However there are nearby residents that will have longer duration views. Therefore, neither weak nor strong
Presence of Existing Development	1.5	Farm resident in background. Distribution line along road.
Uniqueness of Landscape Compared to Region	1	Typical of area
Presence of Water	0	
Total	**5.5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1.5**	Typical of area. Very large kV transmission line in view.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Garnet Energy Center	Date:4/22/21
Viewpoint Number: VP7	Preparer: Michael Ross
Viewpoint Location: Drake Road	
Viewpoint Description: view southwest at eastern side of Project near resident	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2.5	The panels create a long, linear, blocky shape in the open field landscape creating contrast.
Line Contrast	1.5	Line contrast is created primarily from the fence line and tops of the solar arrays.
Texture Contrast	1.5	The fencing and smooth panels contrast with the organic natural setting of the agricultural landscape it is located in.
Color Contrast	1.5	The hard-black panels and fencing colors are similar in color to the existing asphalt road found in the image however, contrast does occur with the existing earth tone and green colors found in the landscape.
Project Scale Contrast/Spatial Dominance	2	The solar array field dominates the space previously used for agriculture. Distance to the road and location in an open field increases the size and scale visual impacts.
Broken Horizon Line	1.5	The horizon line is broken by the panels in a portion of this view.
Visual Acuity	2.5	Discernable details of the panels and fence line are present in this view and visual acuity somewhat strong.
Amount of Project Clearing Seen	0	No discernable clearing can be identified.
Screening/Mitigation Needed	3	The panels are visible from this location. Therefore, appropriate visual mitigation/screening efforts will be needed to mitigate views.
Total	**16**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	Approximately 10 residential properties and/or residential structures appear to be present in this area and additional/increased views will occur by vehicles and passersby utilizing the roadway.
Duration of View	2	The residential structures that are present will encounter a long-term duration of views. Short-term views will occur by vehicular travel and passersby utilizing the roadway.
Presence of Existing Development	1.5	A small pocket of residential structures is present in this area.
Uniqueness of Landscape Compared to Region	1.5	The landscape appears to be representative to the area.
Presence of Water	0	No presence of water can be discerned in this view.
Total	**6.5**	
Part 3 Scenic Quality		

General Scenic Quality of the View	**1.5**	The view is peaceful and rural but seems average and common to this area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

TRC net Energy Center	Date: 20210420
Viewpoint Number: VP7	Preparer: Corban McElroy
Viewpoint Location: Drake Road	
Viewpoint Description: view southwest at eastern side of Project near resident	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	1	The Horizontal dark massing of the panels blends in fairly well with the dark tree line mimicking and extending the tree line filed interface minimally.
Line Contrast	1	The panels are aligned close enough to create low contrast with the horizontal line of the horizon and access road.
Texture Contrast	1	The panels are approximately 375 feet from the viewpoint which creates a moderately discernable repetitious pattern between the panels. This fades with distance and extends to the south.
Color Contrast	1	The panels and fence seem to be a continuation of the dark tree line and tree covered hills in the distance. The dark asphalt of the road in the foreground anchors the panels and tree line in the frame.
Project Scale Contrast/Spatial Dominance	2	The panels are at such an angle to lighten the felt weight of their presence. The panels stretch across the view towards the south and continue out of sight.
Broken Horizon Line	1	The project appears to barley break the horizon line to the right (north) of the frame creating a weak sense.
Visual Acuity	1.5	The 375 feet of distance between the panels and road allows for a weak amount of discernable detail while the array continues southward out of sight.
Amount of Project Clearing Seen	0	There appears to be no project clearing in this image.
Screening/Mitigation Needed	2	The nearby residences and traffic would benefit greatly from additional screening.
Total	**10.5**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	No
View of Other Visual Resource with Project*	0	No
A Listed/Known Scenic Resource of Visual Quality*	0	No
Number of Viewers (Low or High Use Activity)	1.5	There are several Residences and a low traffic count road nearby.
Duration of View	2	The Residences are the primary long view holders with travelers on the farm road being secondary weak viewers.
Presence of Existing Development	1.5	The Farm fields, Farmhouse, outbuildings, road and electric transmission infrastructure create a moderate development footprint.
Uniqueness of Landscape Compared to Region	1	The farmlands and rolling hills with distant tree line is indicative of the surrounding conditions.
Presence of Water	0	There is no water in this image.
Total	**6**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**2**	Largely intact landscape with farm as a focal point intersected by transmission line with weak diversity composure.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

TRC net Energy Center	Date: April 21, 2021
Viewpoint Number: VP12	Preparer: J Bartos
Viewpoint Location: Spook Woods Road	
Viewpoint Description: view northwest at southern side of Project near residents	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☐ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2.5	New form introduced into open view landscape. Arrays in background conform nicely with topography though.
Line Contrast	2.5	New line introduced into landscape. The line provided by arrays on hill in background conform nicely with topography though.
Texture Contrast	2.5	Arrays provide a texture on their own but texture of the actual panels and fence can be seen
Color Contrast	2.5	Arrays are darker and contrasts against the ochre colored field. Color is more compatible with background trees.
Project Scale Contrast/Spatial Dominance	2	On the whole the Project is low profile. Just about all panels appear lower than the trees. The background arrays on the hill shows very low size contrast. The foreground panels while still low profile do show a size contrast based on the viewer's proximity to the Project
Broken Horizon Line	0.5	Very minimal.
Visual Acuity	3	Level of discernible detail is high due to viewer proximity to arrays
Amount of Project Clearing Seen	0.5	Extremely minimal
Screening/Mitigation Needed	2.5	Yes
Total	**19**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	0.5	Mostly motorists on a rural road.
Duration of View	1	Short intermittent views for motorists on a rural local road.
Presence of Existing Development	0	
Uniqueness of Landscape Compared to Region	1	Typical of area
Presence of Water	0	
Total	**2.5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**2.5**	Typical of area but restful open view with no development noted.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Garnet Energy Center	Date: 20210419
Viewpoint Number: VP 12	Preparer: Corban McElroy
Viewpoint Location: Spook Woods Road	
Viewpoint Description: view northwest at southern side of Project near residents	
Landscape Similarity Zone: 1	
Viewer Type (check all that apply): ☐ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2.5	The form consists of two masses of dark colored panels that ungulate with the rolling landscape. A repetitive texture of the panels is apparent in the massing closer to the road.
Line Contrast	2	Four apparent massing edges are visually apparent in the massing. A dark heavy line is introduced close to the road which increases the contrast from this viewpoint.
Texture Contrast	2	The proximity of the array to the viewpoint lends to increased textural contrast. The distance between the massing of panels weakens the textural contrast between the panels and creates a more contiguous form in the distance against the natural tree line and field.
Color Contrast	2.5	The light natural colors of the sky, field and distant tree line strongly contrast the dark grey of the solar array.
Project Scale Contrast/Spatial Dominance	2.5	The project has a strong presence in the view which is split by two panel massings.
Broken Horizon Line	1	The project stays below the horizon for most of the view. The distant massing at approximately 570 feet from the viewpoint breaks the horizon line for a short distance but is mildly perceptible.
Visual Acuity	1.5	The fence line in this case disrupts the clarity of discernable detail of the close panels. The panels continue into the distance onto the rolling hills that decrease in clarity the further from the viewpoint.
Amount of Project Clearing Seen	0	There dose not appear to be any project clearing in this instance.
Screening/Mitigation Needed	2	The fence line is proximate to the road and viewpoint. This location would benefit from screening.
Total	**16**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	No
View of Other Visual Resource with Project*	0	No
A Listed/Known Scenic Resource of Visual Quality*	0	No
Number of Viewers (Low or High Use Activity)	1	This viewpoint is on a low traffic count rural farm road.
Duration of View	1	Motor vehicle travelers are moving through this viewpoint.
Presence of Existing Development	2	There are few farmhouses and farmland in the general vicinity of this viewpoint.
Uniqueness of Landscape Compared to Region	.5	This view is representative of the general area and has no special attractions.
Presence of Water	0	There is no water in this view.
Total	**2.5**	

Part 3 Scenic Quality		
General Scenic Quality of the View	**2**	Intact farm field lined with natural vegetation and trees.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Garnet Energy Center	Date:4/22/21
Viewpoint Number: VP12	Preparer: Michael Ross
Viewpoint Location: Spook Woods Road	
Viewpoint Description: view northwest at southern side of Project near residents	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☐ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2.5	The panel shapes contrast with the existing landscape. Some of the arrays roll along the hillside however, most appear out of place and man-made in the open field landscape creating contrast.
Line Contrast	2.5	Line contrast is strong and created primarily by the fence line in the foreground and the solar arrays throughout the view.
Texture Contrast	2.5	The fencing and smooth panels contrast strongly with the organic natural setting of the agricultural landscape it is located in.
Color Contrast	2	The amount of hard-black panels and fencing colors contrast with the existing earth tone and green colors found in the landscape.
Project Scale Contrast/Spatial Dominance	2.5	The solar array field dominates the space previously used for agriculture. Minimal distance to the road and location in an open field increases the size and scale visual impacts.
Broken Horizon Line	0.5	A very small portion of the horizon line is broken by the panels in this view.
Visual Acuity	2.5	Discernable details of the panels and fence line are present in this view and visual acuity is strong.
Amount of Project Clearing Seen	0	No discernable clearing can be identified.
Screening/Mitigation Needed	2	The panels are visible from this location however, there are no residential structures located at this viewpoint but, appropriate visual mitigation/screening efforts will still be needed to mitigate views for the few residential structures close by.
Total	**17**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	A few residential properties and/or residential structures appear to be present in this area and additional/increased views will occur by vehicles and passersby utilizing the roadway.
Duration of View	1.5	The residential structures that are present nearby will encounter a long-term duration of views. Short-term views will occur by vehicular travel and passersby utilizing the roadway.
Presence of Existing Development	1	A few of residential structures are present in this area.
Uniqueness of Landscape Compared to Region	1.5	The landscape is picturesque but, appears to be representative to the area.
Presence of Water	0.5	No presence of water can be discerned in this view but, it should be noted that a drainage channel can be identified by areal views.
Total	**6**	

Part 3 Scenic Quality		
General Scenic Quality of the View	**1.5**	The view is peaceful and rural but seems average and common to this area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Garnet Energy Center	Date: April 21, 2021
Viewpoint Number: VP13	Preparer: J Bartos
Viewpoint Location: Spook Woods Road	
Viewpoint Description: view southwest at southern side of Project near residents	
Landscape Similarity Zone: 1,2,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	1.5	New form introduced into existing field but arrays and array shape are geometrically similar to existing structures in the view as well as horizontal shapes of green foreground grass and field.
Line Contrast	1	New line introduced into landscape but line conforms with existing horizontal line seen in the view mostly as edges between objects and landscape elements
Texture Contrast	1	Arrays provide a small texture on their own but does not contrast greatly
Color Contrast	1.5	Arrays are darker and contrasts against the ochre colored field but color is also compatible with background trees and other elements in the view.
Project Scale Contrast/Spatial Dominance	1.5	Project may have some lateral breadth but overall looks very low profile in the environments
Broken Horizon Line	0	None see.
Visual Acuity	2	While the arrays are visible in the field the level of discernible detail low.
Amount of Project Clearing Seen	0.5	Extremely minimal
Screening/Mitigation Needed	2	Yes
Total	**11**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1	Mostly motorists on a rural road in addition to few residences in this vicinity.
Duration of View	2	Short intermittent views for motorists on a rural local road but longer duration view for resident.
Presence of Existing Development	1.5	Resident in area.
Uniqueness of Landscape Compared to Region	1	Typical of area
Presence of Water	0	
Total	**5.5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**2**	Typical and average of area.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

Project: Garnet Energy Center	Date: 20210419
Viewpoint Number: VP 13	Preparer: Corban McElroy
Viewpoint Location: Spookywoods Road	
Viewpoint Description: view southwest at southern side of Project near residents	
Landscape Similarity Zone: 1,2,3	
Viewer Type (check all that apply): ☐ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2	The main panel massing is distant and, in the field, while the second massing is on top of the ridgeline.
Line Contrast	1.5	There exists a barn building in the foreground with a green massing of grass before the security fence and the panels in the field. The tree line is broken by the barn.
Texture Contrast	1.5	The distance to the panels is quite far so the textural impact is weakened.
Color Contrast	1.5	The dark grey of the panels is matched by the grey of the tree line. The barn and gravel pile is quite dark which lends to a weakened contrast.
Project Scale Contrast/Spatial Dominance	2	The panel massing is quite dominant in this view.
Broken Horizon Line	0	The panel array remains below the horizon line across the view.
Visual Acuity	.5	The panels are at such a distance where the discernable detail from the viewpoint is minimal creating very weak visual acuity.
Amount of Project Clearing Seen	0	There appears to be no project clearing in this image.
Screening/Mitigation Needed	2	The house to the left of the image would benefit from additional project screening.
Total	**11**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	No
View of Other Visual Resource with Project*	0	No
A Listed/Known Scenic Resource of Visual Quality*	0	No
Number of Viewers (Low or High Use Activity)	1	The residents and travelers on the rural farm road constitute a low use activity.
Duration of View	1.5	The residents will have a longer duration while the travelers on the rural farm road will have a very short duration view.
Presence of Existing Development	1	The existing Farmhouse and outbuildings will create a low presence of development.
Uniqueness of Landscape Compared to Region	1	This is typical of the surrounding areas with no special features in this view.
Presence of Water	0	There is no water present in this view.
Total	**4.5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**2**	He rural farmland with rolling hills creates a strong value with low diversity.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Garnet Energy Center	Date:4/22/21
Viewpoint Number: VP13	Preparer: Michael Ross
Viewpoint Location: Spook Woods Road	
Viewpoint Description: view southwest at southern side of Project near residents	
Landscape Similarity Zone: 1,2,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	1.5	The panels recede back into the distance below the horizon line. The arrays roll with the existing terrain and are nestled in place drawing less attention and creating less contrast within the surrounding area.
Line Contrast	1.5	The rows of arrays create lines or striations that appear to reach or stretch across the open terrain of the hillside creating some contrast.
Texture Contrast	1	The blanket of arrays appears to lay or stretch up the hillside blending in with the remaining open area creating less contrast in texture from the original vegetation that was found to be present.
Color Contrast	1.5	The hard-black panels contrast with the existing earth tone and green colors found in the landscape however, the way the color is displayed in the image the contrast seems to be less impactful.
Project Scale Contrast/Spatial Dominance	1.5	Distance and location in an open field in between woodland areas in conjunction with the panels being nestled into the rolling topography of the landscape helps to soften the size and scale and overall visual impact.
Broken Horizon Line	0	The horizon line is not broken by the panels due to location.
Visual Acuity	1.5	Some details are present in the foreground and middle ground of the image however, distance and existing topography serve to reduce a good portion of the proposed structures and visual acuity.
Amount of Project Clearing Seen	0	No discernable clearing can be identified.
Screening/Mitigation Needed	2.5	The panels are visible from this location. Therefore, appropriate visual mitigation/screening efforts will be needed to mitigate views.
Total	**11**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	Minimal residential structures appear to be present in this area however, increased views will occur by vehicles and passersby utilizing the roadway.
Duration of View	1.5	Although minimal residential structures appear to be present, long-term duration of views will most likely occur from these structures/properties. Conversely, short-term views will occur by vehicular travel and passersby utilizing the roadway.
Presence of Existing Development	1	Several residential structures are present in this area.
Uniqueness of Landscape Compared to Region	1.5	The landscape is picturesque however, it appears to be representative to the area.
Presence of Water	0.5	No presence of water is discernable in this view however, it should be noted that a small pond behind a residence located in this area can be identified by aerial views.

Total	**6**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1.5**	The view provides a peaceful, rural, and quiet setting that is appealing and pleasant yet somewhat remote and removed.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Garnet Energy Center	Date: April 21, 2021
Viewpoint Number: VP15a	Preparer: J Bartos
Viewpoint Location: Slayton Road	
Viewpoint Description: view northeast at central portion of project	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	3	New form introduced into existing open field.
Line Contrast	2.5	New line introduced into landscape but line conforms somewhat with existing horizontal line of the topography
Texture Contrast	3	Arrays provide a texture on their own but texture of the actual panels and fence can be seen
Color Contrast	3	Arrays are darker and contrasts against the ochre colored field.
Project Scale Contrast/Spatial Dominance	2.5	Project may have some lateral breadth but overall is low profile in the environments. Because the arrays are the only thing seen it is dominant in the view
Broken Horizon Line	2	Yes but no real big vertical interuptions
Visual Acuity	3	Level of discernible detail is high due to viewer proximity to arrays
Amount of Project Clearing Seen	0	
Screening/Mitigation Needed	3	Yes
Total	**22**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1	Mostly motorists on a rural road in addition to few residences in this vicinity.
Duration of View	2	Short intermittent views for motorists on a rural local road but longer duration view for resident.
Presence of Existing Development	0.5	Residents in area.
Uniqueness of Landscape Compared to Region	1.5	Typical of area
Presence of Water	0	
Total	**5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**2**	Typical of area but with restful open view.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

Project: Garnet Energy Center	Date: 20210419
Viewpoint Number: VP 15A	Preparer: Corban McElroy
Viewpoint Location: Slayton Road	
Viewpoint Description: view northeast at central portion of project	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	3	Very strong contrast between sky, panels and field.
Line Contrast	3	The line contrast introduced by the panels is very strong.
Texture Contrast	3	The texture of the panels is very strong to weak as the distance increases.
Color Contrast	3	The dark panels provide high contrast with the sky and field.
Project Scale Contrast/Spatial Dominance	3	The panels reach from close to the distant horizon.
Broken Horizon Line	3	The panels break the horizon line across the entire view.
Visual Acuity	2.5	The clarity of the installation is very high ranging to weaker in the distance.
Amount of Project Clearing Seen	0	There does not seem to be any project clearing in this view.
Screening/Mitigation Needed	3	This view needs a high degree of multiple levels of plant material.
Total	**23.5**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	No
View of Other Visual Resource with Project*	0	No
A Listed/Known Scenic Resource of Visual Quality*	0	No
Number of Viewers (Low or High Use Activity)	2	This is low traffic rural route with a few homes nearby.
Duration of View	2.5	The nearby homes will experience long duration views
Presence of Existing Development	0	There is no evidence of existing development or improvement in this view.
Uniqueness of Landscape Compared to Region	0	This view is typical of the surrounding rural landscape.
Presence of Water	0	There is no water in this image.
Total	**4.5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**2**	The field meets the sky in an uninterrupted flow across the image.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Garnet Energy Center	Date:4/22/21
Viewpoint Number: VP15A	Preparer: Michael Ross
Viewpoint Location: Slayton Road	
Viewpoint Description: view northeast at central portion of project	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	3	The large panel shapes contrast strongly with the existing open landscape of the agriculture field.
Line Contrast	3	Line contrast is strong and created primarily by the fence line in the foreground and the solar arrays throughout the view.
Texture Contrast	2.5	The fencing and smooth panels located in close proximity to the viewpoint location contrast strongly with the organic natural setting of the agricultural landscape it is located in however fine texture of the low growing vegetation helps to soften the impact slightly.
Color Contrast	2.5	The amount of panels and fencing colors in this view contrast with the existing earth tone and green colors found in the landscape however the fencing color is similar to straw on the ground.
Project Scale Contrast/Spatial Dominance	3	The solar arrays and fencing dominates the space previously used for agriculture. Minimal distance to the road and location in an open field increases the size and scale of visual impacts as well.
Broken Horizon Line	3	The horizon line is all but completely broken by the panels in this view.
Visual Acuity	3	Discernable details of the panels and fence line are present in this view and visual acuity is very strong.
Amount of Project Clearing Seen	0	No discernable clearing can be identified.
Screening/Mitigation Needed	3	The panels are visible from this location and residential structures are located at this viewpoint. Appropriate visual mitigation/screening efforts will be needed to mitigate views.
Total	**23**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	Residential properties and/or residential structures are present in this area and additional/increased views will occur by vehicles and passersby utilizing the roadway.
Duration of View	2.5	The residential structures that are present nearby will encounter a long-term duration of views. Short-term views will occur by vehicular travel and passersby utilizing the roadway.
Presence of Existing Development	1.5	Several residential structures are present in this area.
Uniqueness of Landscape Compared to Region	1	The landscape appears to be representative to the area.
Presence of Water	1	No presence of water can be discerned in this view but, it should be noted that a pond and stream are located behind several residences nearby and can be identified by areal views.

Total	**6**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**0.5**	This view poses little to no scenic quality.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Garnet Energy Center	Date: April 21, 2021
Viewpoint Number: VP16a	Preparer: J Bartos
Viewpoint Location: Lake Road intersection with State Route 38 (in view)	
Viewpoint Description: view northeast	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2	New form introduced into existing open field but shape and form is similar to geometric arrangement of field patterns.
Line Contrast	1.5	New line introduced into landscape but line mimics several landscape features such as transmission lines and field edges
Texture Contrast	2	Arrays provide a texture en masse and repeated patterns can be observed
Color Contrast	2	Arrays are darker and provides some contrast but are similar in value to other landscape features.
Project Scale Contrast/Spatial Dominance	2.5	Project may have some lateral breadth but overall is low profile and fits in the landscape. Appears co-dominant.
Broken Horizon Line	0.5	Slightly in right hand part of sim
Visual Acuity	2	Project can be seen but level of discernible detail is low.
Amount of Project Clearing Seen	0.5	Minimal seen.
Screening/Mitigation Needed	2.5	Yes
Total	**15.5**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	1	Snowmobile trail in vicinity. Seasonal use a few months out of the year
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	2	Mostly motorists but on a busier state route (38) and few residences in area
Duration of View	2	Short intermittent views for motorists on State Route 38 but longer duration view for resident.
Presence of Existing Development	0.5	Residents in area.
Uniqueness of Landscape Compared to Region	1	Some residential noted.
Presence of Water	0	
Total	**6.5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**2**	Typical of area but with restful open view.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Garnet Energy Center	Date: 20210420
Viewpoint Number: VP 16a	Preparer: Corban McElroy
Viewpoint Location: Lake Road intersection with State Route 38 (in view)	
Viewpoint Description: view northeast	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2	There are massings of grasses and fields, panels, trees and sky. The panels dominate the background and create strong contrast with the fields.
Line Contrast	2	The horizontal lines of the panels and fields contrast with the varied lines of the road as it moves up hill contrasting with the vertical lines of the utility poles and structures.
Texture Contrast	1.5	The grass field and distant trees are balanced by the distance of the buildings and panels in this view.
Color Contrast	2.5	The light colors of greens and browns from the fields, brown grey trees and blue sky creates a strong contrast with the dark grey panels in this view.
Project Scale Contrast/Spatial Dominance	2	The panel installation makes up a large portion of the landscape in this view.
Broken Horizon Line	1.5	The view to the northeast of the farmhouse shows the panels breaking the horizon towards the east.
Visual Acuity	1	The distance and atmospheric conditions like fog or humidity create a low sense of visual acuity in this image.
Amount of Project Clearing Seen	0	There appears to be no project clearing in this image.
Screening/Mitigation Needed	1.5	The road on which the viewpoint is located would benefit from additional screening.
Total	**14**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	No
View of Other Visual Resource with Project*	1	Snowmobile trail in vicinity. Seasonal use a few months out of the year
A Listed/Known Scenic Resource of Visual Quality*	0	No
Number of Viewers (Low or High Use Activity)	1	This viewpoint is from a rural farm road with low traffic count.
Duration of View	1	This view would be seen by rural farm road traffic for a short period of time.
Presence of Existing Development	1	There are farm fields, utility poles and lines along with farmhouses and outbuildings creating a low development footprint.
Uniqueness of Landscape Compared to Region	.5	This view would be considered typical of the rural farmland found in the area.
Presence of Water	0	There is no water in this image.
Total	**4.5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**2**	This rural farm and field view generates high values and low scenic diversity.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Garnet Energy Center	Date:4/22/21
Viewpoint Number: VP16a	Preparer: Michael Ross
Viewpoint Location: State Route 38	
Viewpoint Description: view northeast	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	1.5	The overall panel shapes are foreign to its surroundings but do fit into the existing open landscape of the agriculture fields fairly well.
Line Contrast	1.5	Line contrast is created primarily by the fence line, proposed access roads, and the solar arrays throughout the view.
Texture Contrast	1	The texture of the fencing and smooth panels blends in to some degree with the organic natural setting of the agricultural landscape vegetation present and existing terrain which helps to reduce contrast and soften impacts.
Color Contrast	1.5	The amount of color of the related to the solar panels in this view creates contrast however, patterns of color exist throughout this view as a result of the various existing types of vegetation and blue sky.
Project Scale Contrast/Spatial Dominance	2	The solar arrays and fencing somewhat dominate the landscape. The size and scale of the solar array fields compared to the existing residential structures and utility poles enhances this.
Broken Horizon Line	1.5	The horizon line is broken by the panels in a portion of this view.
Visual Acuity	1.5	Some discernable details of the panels and fence line are present in this view.
Amount of Project Clearing Seen	1.5	Clearing of a wooded area can be identified in this view.
Screening/Mitigation Needed	2.5	The panels are visible from this location and residential structures are located at this viewpoint. Appropriate visual mitigation/screening efforts will be needed to mitigate views.
Total	**14.5**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	1	Snowmobile trail in vicinity. Seasonal use a few months out of the year
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	Residential properties and/or residential structures are present in this area and additional/increased views will occur by vehicles and passersby utilizing the roadway.
Duration of View	2	The residential structures that are present nearby will encounter a long-term duration of views. Short-term views will occur by vehicular travel and passersby utilizing the roadway.
Presence of Existing Development	1.5	Several residential structures are present in this area.
Uniqueness of Landscape Compared to Region	1	The landscape appears to be representative to the area.
Presence of Water	2	No presence of water can be discerned in this view but, it should be noted that a stream is located in the distance within this view which can be identified by areal images.
Total	**9**	

Part 3 Scenic Quality		
General Scenic Quality of the View	**1**	This view has some scenic quality.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Garnet Energy Center	Date: April 21, 2021
Viewpoint Number: VP19	Preparer: J Bartos
Viewpoint Location: Cooper Street	
Viewpoint Description: view northeast	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2	New form introduced into existing open field but horizontal nature of shape as a whole is similar to background trees.
Line Contrast	2	New line introduced into landscape but line mimics several landscape features such as field edges and horizontal lines of landscape across view
Texture Contrast	1.5	Arrays provide a texture en masse and repeated patterns can be observed
Color Contrast	2	Arrays are a different color and provides some contrast but are similar in value to other landscape features.
Project Scale Contrast/Spatial Dominance	1.5	Project may have some lateral breadth but overall is low profile compared to trees and large kV utility and fits in the landscape. Appears co-dominant.
Broken Horizon Line	0.5	Slightly in right hand part of sim
Visual Acuity	2	Project can be seen but level of discernible detail is moderate
Amount of Project Clearing Seen	0.5	Minimal seen.
Screening/Mitigation Needed	2.5	Yes
Total	**14.5**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	Mostly motorists but on a busier state route (38) and few residences in area
Duration of View	2	Short intermittent views for motorists on State Route 38 but longer duration view for resident.
Presence of Existing Development	0.5	Residents in area.
Uniqueness of Landscape Compared to Region	1	Some residential noted.
Presence of Water	0	
Total	**5**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1**	Open field typical of area. Large kV utility seen.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Garnet Energy Center	Date: 20210420
Viewpoint Number: VP 19	Preparer: Corban McElroy
Viewpoint Location: Cooper Street	
Viewpoint Description: view northeast	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2	A Horizontal massing of panels bisects the view splitting the field and tree line interface from northeast to southwest. The panels continue up the hillside to the north of the viewpoint around transmission line infrastructure.
Line Contrast	2	Bold horizontal lines overlap the field tree line interface and continue north creating strong lines of the fence and panel tops contrasting with the filed.
Texture Contrast	2	The fence and panels are at a distance great enough to allow the regular shape and pattern become visible. The individual cells can be seen that creates a rough fabric texture.
Color Contrast	2	The light colors of gravel, field, trees, and sky contrast with the dark grey of the panel array.
Project Scale Contrast/Spatial Dominance	2.5	The panels move up the hill in the northern section and lend an imposing feeling that continues across the view to the southeast.
Broken Horizon Line	1.5	The northern section of the panels breaks the horizon line on top of the hill which creates a weak to moderate broken horizon line.
Visual Acuity	2	The panels directly in front of the viewer are close enough to allow for moderate to strong discernable detail while the array continues to the north and up hill which decreases in detail as the distance increases.
Amount of Project Clearing Seen	1	There appears to be minimal to low project clearing in this image.
Screening/Mitigation Needed	2.5	The residences directly to the west will need this screened as the installation is approximately 260 feet away.
Total	**17.5**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	No
View of Other Visual Resource with Project*	0	No
A Listed/Known Scenic Resource of Visual Quality*	0	No
Number of Viewers (Low or High Use Activity)	1.5	There are 3 Residences in the immediate vicinity that will have a moderate to strong impact.
Duration of View	2	The three Residences will have long duration while the travelers on the rural farm road will have a short duration view.
Presence of Existing Development	1.5	Farm fields and existing transmission line infrastructure create and moderate development footprint.
Uniqueness of Landscape Compared to Region	1	The scene is of a farm field with a tree line on rolling hills which is typical of the general vicinity.
Presence of Water	0	There is no water in this view.
Total	**6**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**.5**	Rural farm fields with transmission infrastructure create low scenic quality.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Garnet Energy Center	Date:4/23/21
Viewpoint Number: VP19	Preparer: Michael Ross
Viewpoint Location: Cooper Street	
Viewpoint Description:	
Landscape Similarity Zone:	
Viewer Type (check all that apply): ☐ Resident ☐ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☐ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2	The form of panel shapes is linear and angular and blocky type that are foreign to the surrounding area creating conflict with the natural vegetation and landscape.
Line Contrast	2	Line contrast is strong and is created primarily by the fence line, proposed access road, and the solar arrays throughout the view. The vertical utility towers and tree trunks in the wooded area help to reduce impacts somewhat.
Texture Contrast	2	The texture of the fencing is similar to the utility towers and the smooth solar panels are similar or like to the fine textures depicted by the blue sky, access road, and groundcover vegetation however, conflict does exist with the remainder of the natural vegetation and wooded area.
Color Contrast	2	The colors of the fence line blend with the utility towers and access road however, the amount of color depicted by the solar panels creates contrast with the various types of existing vegetation and to some degree, the blue sky.
Project Scale Contrast/Spatial Dominance	2	The solar arrays and fencing does work its way around the natural vegetation reducing impacts somewhat however, the size and scale of the solar array fields compared to the existing utility towers and mature trees and wooded area enhances special dominance and scale.
Broken Horizon Line	0.5	The horizon line is broken by the panels in a small portion of this view along the hilltop.
Visual Acuity	1.5	Some discernable details of the panels and fence line are present in this view.
Amount of Project Clearing Seen	0	Other than a few grasses in the foreground, no discernable clearing can be identified in this view.
Screening/Mitigation Needed	3	The panels are visible from this location and residential structures are located at this viewpoint. Appropriate visual mitigation/screening efforts will be needed to mitigate views.
Total	**15**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	A few residential properties and/or residential structures are present in this area and additional/increased views will occur by vehicles and passersby utilizing the roadway.
Duration of View	1.5	The residential structures that are present nearby will encounter a long-term duration of views. Short-term views will occur by vehicular travel and passersby utilizing the roadway.
Presence of Existing Development	1	A few residential structures are present in this area.
Uniqueness of Landscape Compared to Region	1	The landscape appears to be representative to the area.

Presence of Water	1	No presence of water can be discerned in this view but, it should be noted that a stream is located in the distance beyond the hillside and solar array field.
Total	**6**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**0.5**	This view has minimal scenic quality.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Garnet Energy Center	Date: April 21, 2021
Viewpoint Number: VP61	Preparer: J Bartos
Viewpoint Location: Slayton Road	
Viewpoint Description: view west	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	2	Noticeable new form introduced into existing open field.
Line Contrast	2	New line introduced into landscape but is moderated by all the other features in the foreground such as scattered vegetation, pavement and distribution line.
Texture Contrast	2.5	While the panel textures themselves aren't noticeable the arrays en masse at distance produce a textured effect in the open field compared to existing conditions and is different from other landscape features.
Color Contrast	2	Color contrasts are moderate and there are both light and dark landscape features.
Project Scale Contrast/Spatial Dominance	2	Project may have some lateral breadth but overall is low profile and fits in the landscape. Appears co-dominant.
Broken Horizon Line	0	
Visual Acuity	1.5	Project can be seen but level of discernible detail is moderate.
Amount of Project Clearing Seen	0	None observed.
Screening/Mitigation Needed	1.5	From roadside views yes. There is a house to left and right of the viewer out of view extents. There appears to be existing trees and shrubs in front of both left and right houses that would assist in mitigation views.
Total	**13.5**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	Rural local road with a few residences in area
Duration of View	2	Short intermittent views for motorists but longer duration view for resident.
Presence of Existing Development	1.5	Near residences and some building structures noted in middle and background but a low populated road
Uniqueness of Landscape Compared to Region	1	Typical of area.
Presence of Water	0	
Total	**6**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**1**	Typical of area with open field but distribution line in view has presence.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Garnet Energy Center	Date:4/23/21
Viewpoint Number: VP61	Preparer: Michael Ross
Viewpoint Location: Slayton Road	
Viewpoint Description: view west	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	1.5	The solar panels and solar panel rows are at a distance which provides a wider view that depicts the overall array field shape and form conforming and blending with the existing terrain and landscape fairly well.
Line Contrast	1.5	Line contrast is present and is created primarily by the rows of solar panels running back into the distance. However, the vertical lines of the tree trunks and utility poles helps to offset and soften the impact.
Texture Contrast	2	Texture is created by the rows of solar panels and the angles of the solar panels as well. The quantity of solar panels and rows of solar panels increases impacts and contrast with the surrounding area.
Color Contrast	1	The colors of the solar arrays blend in with the surrounding landscape colors. Distance helps to allow for this to happen as well.
Project Scale Contrast/Spatial Dominance	2.5	The size and area covered by the solar array field is impactful, even at a distance, creating spatial dominance in the landscape.
Broken Horizon Line	0	The horizon line is not broken in this view.
Visual Acuity	0.5	Distance allows for minimal discernable details of the panels and fence line of the solar array field is present in this view.
Amount of Project Clearing Seen	0	Other than a few grasses in the foreground, no discernable clearing can be identified in this view.
Screening/Mitigation Needed	1	The panels are visible from this location and residential structures are located at this viewpoint. Strategic landscape screening should be implemented however, it will be difficult to eliminate all views due to elevation differences and location/placement of existing road.
Total	**10**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	
View of Other Visual Resource with Project*	0	
A Listed/Known Scenic Resource of Visual Quality*	0	
Number of Viewers (Low or High Use Activity)	1.5	Several residential properties and/or residential structures and a road intersection are present in this area. Views will occur from these residential structures/properties and from vehicles and passersby utilizing the roadway.
Duration of View	1.5	The residential structures that are present nearby will encounter a long-term duration of views. Short-term views will occur by vehicular travel and passersby utilizing the roadway.
Presence of Existing Development	1	Several residential structures are present in this area.
Uniqueness of Landscape Compared to Region	1	The landscape appears to be representative to the area.
Presence of Water	0	No presence of water can be discerned in or around this view.
Total	**5**	

Part 3 Scenic Quality		
General Scenic Quality of the View	**0.5**	This view has minimal scenic quality.

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

TRC Visual Impact Rating Form

Project: Garnet Energy Center	Date: 20210419
Viewpoint Number: VP 61	Preparer: Corban McElroy
Viewpoint Location: Slayton Road	
Viewpoint Description: view west	
Landscape Similarity Zone: 1,3	
Viewer Type (check all that apply): ☒ Resident ☒ Commuter/Traveler ☐ Recreational ☐ Worker	
Seasonal Condition: ☐ Leaf On ☒ Leaf Off	

Visual Rating Element	Rating	Notes
Part 1 Visual Contrast Rating		
Form Contrast	1.5	The dark panel massing is balanced by the dark shape of the asphalt road. The existing buildings and utility poles weaken the contrast of the solar installation.
Line Contrast	1.5	The verticality of the extant buildings and utility lines and closer trees blends the vertical bases of the panels.
Texture Contrast	1	The distant trees and tree line form natural cylindrical masses while the barn and outbuildings create rectangular massings. The panels at this distance provide minimal contrast.
Color Contrast	1	The dark grey panels and the dark asphalt of the road diminish the contrast in this view.
Project Scale Contrast/Spatial Dominance	1.5	The panels occupy less than 1/3 of the image in this view.
Broken Horizon Line	2	The view to the west is dominated by panels breaking the horizon line.
Visual Acuity	1.5	The panels are moderately clear ranging to less clarity as the distance increases. The distance is less perceivable with the rolling hills between the viewpoint and the panels.
Amount of Project Clearing Seen	0	There does not appear to be any project clearing in this installation.
Screening/Mitigation Needed	1.5	The view is from the road looking West, although the view could benefit by adding additional screening from the road.
Total	**11.5**	
Part 2 Viewpoint Sensitivity Rating		
Within a Visual Resource*	0	No
View of Other Visual Resource with Project*	0	No
A Listed/Known Scenic Resource of Visual Quality*	0	No
Number of Viewers (Low or High Use Activity)	1	Low number of viewers traveling on a low use rural farm road.
Duration of View	1	The road users are typically traveling at speed through this viewpoint.
Presence of Existing Development	1	The extant road, barns, outbuildings, farmhouses and utilities have had a high impact on this landscape.
Uniqueness of Landscape Compared to Region	1	This setting has no significant impact and is representative of the surrounding area.
Presence of Water	0	There is no water in this view.
Total	**4**	
Part 3 Scenic Quality		
General Scenic Quality of the View	**2**	This view contains moderate values with pleasing rural patterns

** these visual rating elements are yes or no answers. Therefore, a rating of 0 or 3 should be applied*

Rating Scale	
0	None
1	Weak
2	Moderate
3	Strong

Contrast Rating Panel Qualifications

1. Judy Bartos

Education

Master of Science, Soil Science, University of Massachusetts at Amherst, September 1994
Bachelor of Science, Plant and Soil Sciences, University of Massachusetts at Amherst, 1989
Bachelor of Fine Arts, Minor in Art History; University of Massachusetts, 1987

Areas of Expertise

Ms. Bartos has 26 years of cumulative experience in the following:

- GIS 10.7 ArcInfo/Spatial Analyst/3D Analyst; ArcServer/sde Geodatabase; 3DS Max 2016; Global Mapper; Infraworks, Visual Nature Studio 3; AutoCad; ArcGIS Pro 2.5
- Three-Dimensional Modeling, Photosimulation, Viewshed Analysis, Line-of-Sight, Advanced Terrain Analysis, Linear Referencing, Shadow Study, Advanced Geodatabases
- Author of Visual Impact Assessments since 2002
- Expert Testimony for Visual Impact Assessments and Photosimulations
- Wind Farm and Generating Facility siting studies
- Observation and evaluation of: Soils, Glacial Geology, Hydrology, Landform Interpretation, Ecology, Forest Community Assessment, Stream Characterization, Wildlife Habitat Assessment
- Former B.F.A. and minor in Art History professional degree in the arts focused on technical aspects of composition, color theory, and design using different media as well as observation and critical evaluation of visual compositions including contemporary and historic masters as well as modern photography.

2. Michael Ross

Education

Bachelor of Science, Landscape Architecture, The Pennsylvania State Univ., University Park, PA, 1995

Professional Registrations/Certifications/Training:

- Pennsylvania Registered Landscape Architect License No. LA002697
- West Virginia Registered Landscape Architect License No. 416
- Colorado Registered Landscape Architect License No. LA1362
- North Carolina Registered Landscape Architect License No. 2096
- Maryland DNR Forest Conservation Qualified Professional

Memberships/Associations:

- American Society of Landscape Architects (ASLA)

- Counsel of Landscape Architectural Registration Boards (CLARB)

Area of Expertise

Mr. Ross has more than 23 years of experience in the profession of Landscape Architecture that includes:

- All aspects of the Land Development Submission process
- Civil Site Plan Development
- Site Analysis, Field Scoping Views, and Formal Survey Requests
- Due Diligence Reports and Utility Coordination
- Conceptual Design and Exhibit Presentations for Client
- Prime and/or Sub-Consultant Interaction and Consultation
- LEED Certified and Sustainable project site design
- Master planning, Estate planning, and Streetscaping
- Hardscape and Planting design/implementation
- All aspects of Permitting Approvals including: E&S/NPDES, HOP, PHMC, Zoning, Planning, and SALDO
- Design/build implementation and processes and Phased planning/design
- Project management and coordination with general and/or subcontractors throughout the construction process
- Program Manager for project site Visual Simulation Efforts

3. Corban McElroy

Education

M.L.A., Master of Landscape Architecture, University of Colorado Denver, Denver, CO
B.A., Land Use – Geographic information Systems, Metropolitan State University of Denver, Denver, CO

Professional Registrations/Certifications/Training

- Associate Member, American Society of Landscape Architecture, ASLA
- Certified verifier – 2020, Nevada Sagebrush Ecosystem Technical Team, Habitat Quantification Tool (HQT)

Areas of Expertise

Mr. McElroy has over 10 years of professional GIS experience.

- Landscape Inspection
- Landscape Design
- Seismic Survey
- PLSS (Public Land Survey System)
- MTP (Master Title Plat)
- Oil and gas and government datasets and clients
- ESRI ArcGIS Software (ArcMap, Arc Pro), CAD-GIS-GPS Data conversion
  GCDB (geographic Co-ordinate Database), Mobile GPS Data Collection (Trimble, Leica, Garmin) processing and integration into GIS, AutoCAD, Adobe Suite (Photoshop, Illustrator, InDesign)