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November 18, 2010

ATTN: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

BELL BEND NUCLEAR POWER PLANT
PARTIAL RESPONSE TO
ENVIRONMENTAL REQUESTS FOR
ADDITIONAL INFORMATION
5022, 5025, & 5035
BNP-2010-302 Docket No. 52-039

References:
1) S. Imboden (NRC) to R. Sgarro (PPL Bell Bend, LLC), Bell Bend Env. - Final RAI EIS 9.3 (RAI No.5022)- Alternatives, e-mail dated September 9, 2010

2) S. Imboden (NRC) to R. Sgarro (PPL Bell Bend, LLC), Bell Bend Env. - Final RAI EIS 5.4-3 (RAI No.5025)- Socio, e-mail dated September 7, 2010

3) S. Imboden (NRC) to R. Sgarro (PPL Bell Bend, LLC), Bell Bend Env. - Final RAI EIS 9.3 (RAI No.5035)- General, e-mail dated September 7, 2010

The purpose of this letter is to respond to several Environmental Report (ER) requests for additional information (RAIs) identified in the referenced NRC correspondence to PPL Bell Bend, LLC (PPL) (References 1, 2, and 3). These RAIs address environmental issues, as discussed in Part 3 of the Bell Bend Nuclear Power Plant Combined License Application (BBNPP COLA).

The enclosure provides our responses to the following RAI Questions:

- RAI 5022 EIS 9.3-14
- RAI 5025 EIS 5.4-3
- RAI 5035 EIS 9.3-28

The included responses include revised COLA content. This future revision of the COLA is a new regulatory commitment.

D102
NRO

Should you have questions or need additional information, please contact the undersigned at 570.802.8102.

I declare under penalty of perjury that the foregoing is true and correct.

Executed on November 18, 2010

Respectfully,

Rocco R. Sgarro

RRS/kw

Enclosure: Responses to Environmental Requests for Additional Information No. 5022 EIS 9.3-14, No. 5025 EIS 5.4-3, No. 5035 EIS 9.3-28 Bell Bend Nuclear Power Plant

cc: w/ Enclosure

Ms. Paula Ballaron
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2 Public Square
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Mr. William Dean
Regional Administrator
U.S. Nuclear Regulatory Commission
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Enclosure

Responses to Environmental Requests for Additional Information
No. 5022 EIS 9.3-14
No. 5025 EIS 5.4-3
No. 5035 EIS 9.3-28
Bell Bend Nuclear Power Plant

RAI No. 5022 EIS 9.3-14

Summary: *This RAI is related to the second alternative sites audit information need ALT-15.*

Clarification is needed on ASER page A-10, Criterion 12a. Score 2 includes Point of Interconnection greater than or equal to 30 miles. "Transmission lines greater than 30 miles" is an exclusionary criterion on page 9. Please clarify this apparent inconsistency.

Full Text (Supporting Information): None.

Response:

As noted by the NRC, 'transmission lines greater than 30 miles' is an exclusionary criterion for screening the region of interest. The scoring rationale for transmission lines was not intended to be duplicative of the exclusionary criterion for transmission lines. The scoring rationale for Criterion 12a in Appendix A of the Alternative Site Evaluation Report (ASER) and Table 9.3-8 of the Environmental Report (ER) will be clarified during future revision of these documents as follows:

Ranking Criteria	Metric	Scoring Basis
12a. Environmental impact of proposed transmission interconnection SCORED ~~BY EXPERT PANEL~~[4] USING SCREENING DATA	Length of proposed right-of-way (ROW) from site to point of transmission interconnection, including assessment of environmental impact (i.e., existing ROW vs. ~~Greenfield~~ new ROW)	5 = 345 kilovolts (kV) or greater transmission on site. 4 = Point of interconnection (POI) less than or equal to 5 mi (8 km) with no existing ROW or less than or equal to 10 mi (16 km) with existing ROW requiring expansion 3 = POI greater than 5 mi (8 km) but less than or equal to 10 mi (16 km) with no existing ROW or greater than 10 mi (16 km) but less than or equal to ~~30~~ 20 mi (~~48~~32 km) with existing ROW requiring expansion 2 = POI greater than 10 mi (16 km) but less than or equal to 20 mi (32 km) with no existing ROW or greater than ~~or equal to~~ 20 mi (32 km) but less than or equal to 30 mi (48 km) with existing ROW requiring expansion 1 = POI greater than 20 mi (32 km) but less than or equal to ~~less than~~ 30 mi (48 km) with no existing ROW

These minor revisions to the scoring rationale did not result in any revision to the scores for any of the candidate sites, including the proposed site and the alternative sites. However, in light of other scoring concerns raised by the NRC and other agencies, the Delphi Panel decided to base the scoring for Criterion 12a strictly on objective screening data. As a result, the Criterion 12a score for the BBNPP site was reduced from 4.78 to 4. In addition, a typographical error was identified in the Criterion 12a score for the Montour site (the score should have been 3 instead

of 2). These scores will be corrected (as will others that are the subject of separate RAI responses) during future revision of the ASER and ER. None of the scores for the other alternative or candidate sites were affected by the decision to base the scoring for Criterion 12a on objective screening data.

COLA Impact:

BBNPP COLA ER Table 9.3-8 will be revised, as follows, in a future revision of the COLA:

Ranking Criteria	Metric	Scoring Basis
12a. Environmental impact of proposed transmission interconnection SCORED ~~BY EXPERT PANEL~~[4] USING SCREENING DATA	Length of proposed right-of-way (ROW) from site to point of transmission interconnection, including assessment of environmental impact (i.e., existing ROW vs. ~~Greenfield~~ new ROW)	5 = 345 kilovolts (kV) or greater transmission on site. 4 = Point of interconnection (POI) less than or equal to 5 mi (8 km) with no existing ROW or less than or equal to 10 mi (16 km) with existing ROW requiring expansion 3 = POI greater than 5 mi (8 km) but less than or equal to 10 mi (16 km) with no existing ROW or greater than 10 mi (16 km) but less than or equal to ~~30~~ 20 mi (32 km) with existing ROW requiring expansion 2 = POI greater than 10 mi (16 km) but less than or equal to 20 mi (32 km) with no existing ROW or greater than ~~or equal to~~ 20 mi (32 km) but less than or equal to 30 mi (48 km) with existing ROW requiring expansion 1 = POI greater than 20 mi (32 km) but less than or equal to ~~less than~~ 30 mi (48 km) with no existing ROW

BBNPP COLA ER Table 9.3-10 will be revised, as follows, in a future revision of the COLA:

Table 9.3-10 Weighted Scoring of Candidate Sites

	BBNPP	Bainbridge	Conowingo	Humboldt	Martins Creek	Montour	Peach Bottom	Seedco	Wallenpaupack	Indian River
1. Land Use	23.34	14.80	18.00	19.58	20.12	20.93	14.54	21.47	8.93	17.74
2. Hydrology	39.00	42.00	42.00	39.00	39.00	39.00	39.00	39.00	39.00	30.00
3. Terrestrial Resources	31.50	17.50	17.50	35.00	35.00	31.50	17.50	31.50	21.00	35.00
4. Aquatic Biological Resources	28.00	7.00	7.00	28.00	14.00	28.00	14.00	28.00	28.00	21.00
5. Socioeconomics	16.50	22.00	22.00	22.00	23.10	13.20	20.90	22.00	15.40	15.40
6. Environmental Justice	22.50	17.50	20.00	22.50	22.50	22.50	20.00	5.00	17.50	12.50
7. Historical and Cultural Resources	20.00	5.00	5.00	20.00	15.00	20.00	10.00	20.00	20.00	15.00
8. Air Quality	20.00	14.00	14.00	20.00	16.00	20.00	16.00	20.00	20.00	14.00
9. Human Health	18.00	8.00	16.00	16.00	6.00	18.00	14.00	14.00	14.00	18.00
10. Postulated Accidents	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
11. Transport of Radioactive Material	3.00	3.00	6.00	3.00	3.00	6.00	6.00	3.00	6.00	6.00
12. Transmission Corridors	~~38.24~~32.00	32.00	32.00	24.00	24.00	~~16.00~~24.00	32.00	24.00	16.00	16.00
13. Population	31.50	27.00	31.50	36.00	18.00	36.00	31.50	40.50	40.50	40.50
14. Facility costs	16.20	27.20	8.25	16.50	13.75	8.55	17.71	16.50	16.20	15.13
15. Geology	28.00	28.00	31.50	29.75	19.25	33.25	33.25	26.25	28.00	28.00
16. Wetlands	29.33	40.00	34.67	34.67	40.00	40.00	40.00	40.00	34.67	18.67
Total:	**~~370.1~~363.9**	**310.0**	**310.4**	**371.0**	**313.7**	**~~357.9~~365.9**	**331.4**	**356.2**	**330.2**	**307.9**

Notes:
The scoring for the *Proposed Site* (BBNPP) is not required when ranking the *Candidate Sites* to select the *Alternative Sites* but is included here for reference.

ASER Impact:

BBNPP ASER Appendix A will be revised, as follows, in a future revision of the ASER:

Ranking Criteria	Metric	Scoring Basis
12a. Environmental impact of proposed transmission interconnection SCORED ~~BY EXPERT PANEL~~[4] USING SCREENING DATA	Length of proposed right-of-way (ROW) from site to point of transmission interconnection, including assessment of environmental impact (i.e., existing ROW vs. ~~Greenfield~~ new ROW)	5 = 345 kilovolts (kV) or greater transmission on site. 4 = Point of interconnection (POI) less than or equal to 5 mi (8 km) with no existing ROW or less than or equal to 10 mi (16 km) with existing ROW requiring expansion 3 = POI greater than 5 mi (8 km) but less than or equal to 10 mi (16 km) with no existing ROW or greater than 10 mi (16 km) but less than or equal to ~~30~~ 20 mi (~~48~~32 km) with existing ROW requiring expansion 2 = POI greater than 10 mi (16 km) but less than or equal to 20 mi (32 km) with no existing ROW or greater than ~~or equal to~~ 20 (32 km) but less than or equal to 30 mi (48 km) with existing ROW requiring expansion 1 = POI greater than 20 mi (32 km) but less than or equal to ~~less than~~ 30 mi (48 km) with no existing ROW

BBNPP ASER Table 6-1 will be revised, as follows, in a future revision of the ASER:

Table 6-1
Weighted Scoring & Ranking to Determine Alternative Sites

Criteria[1]	Weight	Bainbridge		Conowingo		Humboldt		Martins Creek (NJ)		Montour	
		Score	Wt. Score	Score	Wt. Score	Score	Wt. Score	Score	Wt. Score	Score	Wt. Score
1. Land use, including availability, and areas requiring special consideration	**6.33**	**2.47**	**14.80**	**3.00**	**18.00**	**3.26**	**19.58**	**3.35**	**20.12**	**3.49**	**20.93**
1a. Land Area and Existing Facilities: Ability to support the combined EPR footprint including the protected area, cooling towers, ponds, switchyard, construction support areas		4.78		3.00		3.44		5.00		4.78	
1b. Special Areas: Hazardous waste or spoils areas		1.89		5.00		3.44		3.44		3.89	
1c. Zoning		1.22		5.00		5.00		5.00		1.44	
1d. Distance to dedicated land		3.00		1.00		3.00		1.00		5.00	
1e. Topography		1.44		1.00		1.44		2.33		2.33	
2. Hydrology, water quality, and water availability	**9.0**	**4.67**	**42.00**	**4.67**	**42.00**	**4.33**	**39.00**	**4.33**	**39.00**	**4.33**	**39.00**
2a. Water Quality (chemistry)		4.00		4.00		5.00		5.00		5.00	
2b. Receiving Body Water Quality		5.00		5.00		3.00		3.00		3.00	
2c. Volume		5.00		5.00		5.00		5.00		5.00	
3. Terrestrial resources (including endangered species)	**7.28**	**2.50**	**17.50**	**2.50**	**17.50**	**5.00**	**35.00**	**5.00**	**35.00**	**4.50**	**31.50**
3a. Endangered/threatened habitats		1.00		1.00		5.00		5.00		5.00	
3b. Floodplains		4.00		4.00		5.00		5.00		4.00	
4. Aquatic biological resources (including endangered species)	**7.28**	**1.00**	**7.00**	**1.00**	**7.00**	**4.00**	**28.00**	**2.00**	**14.00**	**4.00**	**28.00**
4a. Endangered/threatened habitats		1.00		1.00		5.00		1.00		5.00	
4b Thermal Discharge Sensitivity		1.00		1.00		3.00		3.00		3.00	
5. Socioeconomics (including aesthetics, demography, and infrastructure)	**5.50**	**4.00**	**22.00**	**4.00**	**22.00**	**4.00**	**22.00**	**4.20**	**23.10**	**2.40**	**13.20**
5a. Emergency services		5.00		5.00		5.00		5.00		3.00	

Table 6-1
Weighted Scoring & Ranking to Determine Alternative Sites

Criteria[1]	Weight	Bainbridge		Conowingo		Humboldt		Martins Creek (NJ)		Montour	
		Score	Wt. Score	Score	Wt. Score	Score	Wt. Score	Score	Wt. Score	Score	Wt. Score
5b. Construction traffic		5.00		5.00		5.00		3.00		3.00	
5c. Construction workforce		5.00		5.00		5.00		5.00		3.00	
5d. Housing and necessities		1.00		1.00		1.00		3.00		1.00	
5e. Schools		4.00		4.00		4.00		5.00		2.00	
6. Environmental Justice	**4.72**	**3.50**	**17.50**	**4.00**	**20.00**	**4.50**	**22.50**	**4.50**	**22.50**	**4.50**	**22.50**
6a. Minority population		3.00		4.00		5.00		5.00		5.00	
6b. Low-income population		4.00		4.00		4.00		4.00		4.00	
7. Historic and Cultural Resources	**4.94**	**1.00**	**5.00**	**1.00**	**5.00**	**4.00**	**20.00**	**3.00**	**15.00**	**4.00**	**20.00**
7a. Historic properties		1.00		1.00		3.00		3.00		3.00	
7b. Historic districts		1.00		1.00		5.00		3.00		5.00	
8. Air Quality	**4.00**	**3.50**	**14.00**	**3.50**	**14.00**	**5.00**	**20.00**	**4.00**	**16.00**	**5.00**	**20.00**
8a. Climate and Meteorology: Weather risks/conditions		4.00		4.00		5.00		5.00		5.00	
8b. Class 1 Areas, Attainment / non-attainment Area		3.00		3.00		5.00		3.00		5.00	
9. Human Health	**6.06**	**1.33**	**8.00**	**2.67**	**16.00**	**2.67**	**16.00**	**1.00**	**6.00**	**3.00**	**18.00**
9a. Emergency preparedness program– proximity of residences/businesses for exclusion zone		1.00		3.00		1.00		1.00		3.00	
9b. Radiological pathways – water		2.00		4.00		4.00		1.00		5.00	
9c. Radiological pathways - food		1.00		1.00		3.00		1.00		1.00	
10. Postulated Accidents(a)	**4.56**	**1.00**	**5.00**	**1.00**	**5.00**	**1.00**	**5.00**	**1.00**	**5.00**	**1.00**	**5.00**
10a. Distance to Nearby Potential Hazards [per definition of Reg Guide 4.7]		1.00		1.00		1.00		1.00		1.00	
11. Transport of Radioactive Material (a)	**3.00**	**1.00**	**3.00**	**2.00**	**6.00**	**1.00**	**3.00**	**1.00**	**3.00**	**2.00**	**6.00**

Table 6-1
Weighted Scoring & Ranking to Determine Alternative Sites

Criteria[1]	Weight	Bainbridge		Conowingo		Humboldt		Martins Creek (NJ)		Montour	
		Score	Wt. Score	Score	Wt. Score	Score	Wt. Score	Score	Wt. Score	Score	Wt. Score
11a. Operations/ Transportation: Support/challenges to transport of nuclear fuel and wastes		1.00		2.00		1.00		1.00		2.00	
12. Transmission corridors (land used, feasibility, and resources affected)	**7.72**	**4.00**	**32.00**	**4.00**	**32.00**	**3.00**	**24.00**	**3.00**	**24.00**	~~2.00~~**3.00**	~~16.00~~**24.00**
12a. Environmental impact of Proposed Transmission Interconnection		4.00		4.00		3.00		3.00		~~2.00~~3.00	
13. Population distribution and density	**8.67**	**3.00**	**27.00**	**3.50**	**31.50**	**4.00**	**36.00**	**2.00**	**18.00**	**4.00**	**36.00**
13a. Distance to Population Centers		4.00		4.00		5.00		2.00		4.00	
13b. Population Density		2.00		3.00		3.00		2.00		4.00	
14. Facility costs	**5.50**	**4.95**	**27.20**	**1.50**	**8.25**	**3.00**	**16.50**	**2.50**	**13.75**	**1.56**	**8.55**
14a. Transportation: Barge access and capacity – distance, construction, or upgrade requirements		5.00		1.89		1.00		1.00		1.00	
14b. Transportation: Rail line access and capacity – distance, spur requirements, line capacity, or upgrade requirements		4.89		1.11		5.00		4.00		2.11	
15. Geology/Seismology	**7.11**	**4.00**	**28.00**	**4.50**	**31.50**	**4.25**	**29.75**	**2.75**	**19.25**	**4.75**	**33.25**
15a. Geology/ Seismology: Vibratory ground motion – seismic peak ground acceleration		5.00		5.00		5.00		4.00		5.00	
15b. Geology/Seismology: Depth to bedrock, soil stability, and compaction		3.00		5.00		5.00		1.00		5.00	
15c. Geology/Seismology: Surface faulting and deformations		5.00		5.00		5.00		5.00		5.00	
15d. Geology/Seismology: Other geological hazards		3.00		3.00		2.00		1.00		4.00	
16. Wetlands	**8.33**	**5.00**	**40.00**	**4.33**	**34.67**	**4.33**	**34.67**	**5.00**	**40.00**	**5.00**	**40.00**
16a. Total wetlands		5.00		5.00		5.00		5.00		5.00	

Table 6-1
Weighted Scoring & Ranking to Determine Alternative Sites

Criteria[1]	Weight	Bainbridge		Conowingo		Humboldt		Martins Creek (NJ)		Montour	
		Score	Wt. Score	Score	Wt. Score	Score	Wt. Score	Score	Wt. Score	Score	Wt. Score
16b. Wetlands Component of Site		5.00		3.00		3.00		5.00		5.00	
16c. High Quality Wetlands		5.00		5.00		5.00		5.00		5.00	
Total			310.0		310.4		**371.0**		313.7		~~357.9~~365.9
Alternative Site? (Yes/No)[2]			**NO**		**NO**		**YES**		**NO**		**YES**

BBNPP ASER Table 7-1 will be revised, as follows, in a future revision of the ASER:

Table 7-1
Evaluation for "Environmentally Preferred"

Criteria[1]	Weight	BBNPP		Humboldt		Montour		Seedco	
		Score	Wt. Score	Score	Wt. Score	Score	Wt. Score	Score	Wt. Score
1. Land use, including availability, and areas requiring special consideration	6.33	3.89	23.34	3.26	19.58	3.49	20.93	3.58	21.47
1a. Land Area and Existing Facilities: Ability to support the combined EPR footprint including the protected area, cooling towers, ponds, switchyard, construction support areas		5.00							
1b. Special Areas: Hazardous waste or spoils areas		4.78							
1c. Zoning		3.67							
1d. Distance to Dedicated Land		3.00							
1e. Topography		3.00							
2. Hydrology, water quality, and water availability	9.00	4.33	39.00	4.33	39.00	4.33	39.00	4.33	39.00
2a. Water Quality (chemistry)		5.00							
2b. Receiving Body Water Quality		3.00							
2c. Volume		5.00							
3. Terrestrial resources (including endangered species)	7.28	4.50	31.50	5.00	35.00	4.50	31.50	4.50	31.50
3a. Endangered/Threatened Habitats		5.00							
3b. Floodplains		4.00							
4. Aquatic biological resources (including endangered species)	7.28	4.00	28.00	4.00	28.00	4.00	28.00	4.00	28.00
4a. Endangered/Threatened Habitats		5.00							
4b Thermal Discharge Sensitivity		3.00							
5. Socioeconomics (including aesthetics, demography, and infrastructure)	5.50	3.00	16.50	4.00	22.00	2.40	13.20	4.00	22.00
5a. Emergency services		5.00							
5b. Construction Traffic		3.00							
5c. Construction Workforce		3.00							
5d. Housing and Necessities		1.00							
5e. Schools		3.00							
6. Environmental Justice	4.72	4.50	22.50	4.50	22.50	4.50	22.50	1.00	5.00
6a. Minority Population		5.00							
6b. Low-income Population		4.00							
7. Historic and Cultural Resources	4.94	4.00	20.00	4.00	20.00	4.00	20.00	4.00	20.00
7a. Historic Properties		3.00							
7b. Historic Districts		5.00							
8. Air Quality	4.00	5.00	20.00	5.00	20.00	5.00	20.00	5.00	20.00
8a. Climate and Meteorology: Weather risks/conditions		5.00							
8b. Class 1 Areas, Attainment / non-attainment Area		5.00							
9. Human Health	6.06	3.00	18.00	2.67	16.00	3.00	18.00	2.33	14.00

Table 7-1
Evaluation for "Environmentally Preferred"

Criteria[1]	Weight	BBNPP Score	BBNPP Wt. Score	Humboldt Score	Humboldt Wt. Score	Montour Score	Montour Wt. Score	Seedco Score	Seedco Wt. Score
9a. Emergency preparedness program– proximity of residences/businesses for exclusion zone		3.00							
9b. Radiological pathways – water		5.00							
9c. Radiological pathways – food		1.00							
10. Postulated Accidents(a)	4.56	1.00	5.00	1.00	5.00	1.00	5.00	1.00	5.00
10a. Distance to Nearby Potential Hazards [per definition of Reg Guide 4.7]		1.00							
11. Fuel Cycle Impacts(a)	3.00	1.00	3.00	1.00	3.00	2.00	6.00	1.00	3.00
11a. Operations/ Transportation: Support/challenges to transport of nuclear fuel and wastes		1.00							
12. Transmission corridors (land used, feasibility, and resources affected)	7.72	~~4.78~~4.00	~~38.24~~32.00	3.00	24.00	~~2.00~~3.00	~~16.00~~24.00	3.00	24.00
12a. Environmental impact of proposed transmission interconnection		~~4.78~~4.00							
13. Population distribution and density	8.67	3.50	31.50	4.00	36.00	4.00	36.00	4.50	40.50
13a. Distance to population centers		4.00							
13b. Population density		3.00							
14. Facility costs (environmental)	5.50	2.95	16.20	3.00	16.50	1.56	8.55	3.00	16.50
14a.Transportation: Barge access and capacity – distance, construction, or upgrade requiremen		1.00							
14b.Transportation: Rail line access and capacity – distance, spur requirements, line capacity, o upgrade requirements		4.89							
15. Geology/Seismology	7.11	4.00	28.00	4.25	29.75	4.75	33.25	3.75	26.25
15a. Geology/ Seismology: Vibratory ground motion – seismic peak ground acceleration		5.00							
15b. Geology/Seismology: Depth to bedrock, soil stability, and compaction		3.00							
15c. Geology/Seismology: Surface faulting and deformations		5.00							
15d. Geology/Seismology: Other geological hazards		3.00							
16. Wetlands	8.33	3.67	29.33	4.33	34.67	5.00	40.00	5.00	40.00
16a. Total wetlands		5.00							
16b. Wetlands Component of Plot		1.00							
16c. High Quality Wetlands		5.00							
Total			~~370.13~~63.9		371.0		~~357.93~~65.9		356.2
Is Alternative Site "Environmentally Preferred"? (Yes/No)				NO		NO		NO	

Notes:
[1]Yellow highlighted row is from Ref NUREG-1555 Subject Areas for Candidate Site Selection and Screening. No fill is Functional Evaluation Elements [Ref EPRI Siting Study]

BBNPP ASER Appendix C will be revised, as follows, in a future revision of the ASER:

Montour Site		
Ranking Criteria	**Score**	**Justification**
12a. Proximity/availability of power corridors	~~2.00~~3.00	There are two existing 500-kV transmission lines within the 30-mi (48 km) radius from the Montour site for possible interconnection. One 500-kV transmission line is approximately 14.3 mi (23.0 km) away and the second is approximately 20.5 mi (33.0 km) away. Therefore, the nearest viable transmission line to consider for a potential POI is the 500-kV transmission line approximately 14.3 mi (23.0 km) away. To accommodate this new POI option, there is the possibility of creating a new 1.4 mi (2.3 km) right-of-way (ROW) to an existing 230-kV ROW and expanding that ROW to allow for a new transmission line for a new POI with the nearest 500-kV transmission line.

BBNPP Site		
Ranking Criteria	**Score**	**Justification**
12a. Proximity/availability of power corridors	~~4.78~~4.00	There are two existing 500-kV transmission lines, the Susquehanna 500-kV lines for possible interconnection to the east of the BNNPP site. Therefore, the nearest viable transmission lines to consider for a potential POI are 500-kV transmission lines located approximately 0.8 mi (1.3 km) away from the site. To accommodate this new POI option, there is the possibility of creating a new 0.8 mi (1.3 km) ROW to allow for a new transmission corridor for a new POI with the Susquehanna 500-kV lines. In addition, new transmission system upgrades, including the Susquehanna-Roseland line, are being pursued by the Pennsylvania-New Jersey-Maryland Interconnection, LLC (PJM) and PPL Electric Utilities independent of the BBNPP project. This new line is targeted for completion by 2012, thereby, enabling the new units to also directly connect to the new Susquehanna-Roseland line.

RAI No. 5025 EIS 5.4-3

Summary: *This RAI is related to the second alternative sites audit information need SE-7.*

Address the need to build and operate transmission lines at each of the alternative sites, and assess their aesthetic impacts.

Full Text (Supporting Information): Applicant will look to identify more sensitive visual receptors for alternative sites and transmission lines.

Response:

Additional research was conducted for national, state and local parks, forests, and recreational areas, amusement parks, and fishing and boating access points within the broader, five-mile (8-km) radius of each alternative site, its associated transmission line corridor and substation. This research was conducted to identify additional sensitive visual receptors and assess the potential aesthetic impacts to these resources.

Montour Site

As stated in the Environmental Report (ER) Section 9.3.2.2.6, the Montour site is adjacent to an existing coal-fired power plant with three stacks, two cooling towers, and associated plumes. The plumes from the proposed new unit at the Montour site would likely be visible at a considerable distance; however, these new plumes would not introduce a new element to the visual landscape and would result in a small impact on the character and quality of views in the area.

As stated in ER Section 9.3.2.2.10, the overall impacts due to construction and operation of transmission corridors at the Montour site were determined to be "small to moderate" because to reach the proposed Catawissa Substation, 0.7 mile of new transmission line right-of-way (ROW) would need to be constructed and 15.5 miles of existing 230-kV transmission line ROW would need to be expanded. Because more than 95 percent of the conceptual transmission line route from the Montour site to the nearest 500-kV transmission line would be adjacent to existing transmission lines (230-kV) and less than 1 mile of new transmission line ROW would be required to be constructed, aesthetic impacts due to the construction and operation of transmission lines at the Montour site beyond the aesthetic impacts already present due to the existing transmission lines would be expected to be small.

There are 15 recreational areas within a five mile (8-km) radius of the Montour site, its associated transmission line corridor and substation. These recreational areas include five fishing/boating access points, two fishing hotspots, one golf course, one local park/recreational area, two fields, one park, one amusement park, a stadium and state game land. (ESRI, 2010 a, b, c; Pennsylvania Department of Conservation and Natural Resources [PDCNR], 2003; Pennsylvania Fish and Boat Commission [PFBC], 2009, 2010; Susquehanna River Basin Commission [SRBC], 2006) The following table identifies each of these resources and their proximity to the transmission line corridor, site boundary or substation (whichever is closest).

Recreational Areas Within 5 Miles of the Montour Site and Transmission Corridor				
Recreational Location	**Distance to Transmission Corridor/Site Boundary/ Substation**	**Within 5 Miles of Site**	**Within 5 Miles of Transmission Corridor**	**Within 5 Miles of Substation**
State Game Lands Number 226	3.6	X	X	
Lake Chillisquaque Fishing Hotspot	0.7	X	X	
Montour Preserve Fishing/Boat Access Point	0.4	X	X	
Robert B Redman Stadium	3.1		X	
Jan Hutchinson Field	3.0		X	
Lilwhiler Field	3.2		X	
Espy Park Fishing/Boating Access Point	5.0		X	
Bloomsburg Fishing/Boating Access Point	3.6		X	X
Bloomsburg Fairgrounds	2.0		X	X
Bloomsburg Town Park	2.5		X	X
Indianhead Campground	1.3		X	X
Hopewell Park	4.1		X	
Roaring Creek Fishing Hotspot	2.1		X	X
Jepkos Three Ponds Golf Course	4.8		X	X
Knoebel's Amusement Park	4.2		X	X

As shown in the table above, the closest recreational area is the Montour Preserve, which includes Lake Chillisquaque (a fishing hotspot). As stated in ER Section 9.3.2.2.6, the Montour Preserve is a PPL-owned recreation area. This Preserve was created as a back-up water source for the Montour coal plant and members of the public generally understand that access to this recreational area is being provided as a benefit by PPL.

The identification of these additional sensitive visual receptors does not impact the initial aesthetic conclusion for the Montour site and associated transmission line corridor as presented in ER Sections 9.3.2.2.6 and 9.3.2.2.10.

Humboldt Site

As stated in ER Section 9.3.2.3.6, the Humboldt site is located within an industrial park and any recreational activities near this site would likely already be impacted by the aesthetics of industrial facilities in the vicinity. However, the Humboldt site currently does not have industrial facilities in the industrial park with large cooling towers and associated plumes. The introduction of large plumes from the cooling towers into the skies where there are currently no plumes of this magnitude has the potential to adversely affect the character and quality of views in the area surrounding the Humboldt site. These plumes from the proposed new unit at the Humboldt site would likely be visible at a considerable distance and would result in moderate impacts on the character and quality of views in the area.

As stated in ER Section 9.3.2.3.10, the overall impacts due to construction and operation of transmission corridors at the Humboldt site were determined to be "small to moderate." To

reach the nearest existing 500-kV substation, Susquehanna substation, approximately 0.7 miles of new transmission line ROW would need to be constructed and 13.6 miles of existing 230-kV transmission ROW would need to be expanded. Because approximately 95 percent of the conceptual transmission line route from the Humboldt site to the nearest 500-kV transmission line would be adjacent to existing transmission lines (230-kV) and less than 1 mile of new transmission line ROW would be required to be constructed, aesthetic impacts due to the construction and operation of transmission lines at the Humboldt site beyond the aesthetic impacts already present due to the existing transmission lines would be expected to be small.

There are eight recreational areas within a five mile (8-km) radius of the Humboldt site, its associated transmission line corridor and substation. These recreational areas include three fishing/boating access points, one fishing hotspot, one golf course, one local park or recreational area, one country club, and one state game land. (ESRI, 2010 a, b, c; PDCNR, 2003; PFBC, 2009, 2010; SRBC, 2006) The following table identifies each of these resources and their proximity to the transmission line corridor, site boundary or substation (whichever is closest).

Recreational Areas Within 5 Miles of the Humboldt Site and Transmission Corridor				
Recreational Location	**Distance to Transmission Corridor/Site Boundary/ Substation**	**Within 5 Miles of Site**	**Within 5 Miles of Transmission Corridor**	**Within 5 Miles of Substation**
State Game Lands Number 260	4.1		X	X
Shickshinny Fishing/Boating Access Point	4.5		X	X
Lily Lake Fishing Hotspot	3.8		X	X
Lily Lake Fishing/Boating Access Point	3.5		X	
Nescopeck Recreation Area	4.2		X	X
Sugarloaf Golf Course	4.4		X	
Lake Irena Fishing/Boat Access Point	3.3	X	X	
Eagle Rock Resort and Country Club	1.1	X	X	

As discussed in ER Section 9.3.3.2.1 and shown in the table above, the closest recreational area to the Humboldt site is the Eagle Rock Resort and Country Club, which is a residential and private recreational development southwest of the existing industrial park where the Humboldt site is located. The viewscape for the Eagle Rock Resort and Country Club has already been impacted because of this industrial park. Aesthetic impacts from the presence of cooling towers and potential associated plumes to this recreational area could be minimized through tower design and selection.

The identification of these additional sensitive visual receptors does not impact the initial aesthetic conclusion for the Humboldt site and associated transmission line corridor as presented in ER Sections 9.3.2.3.6 and 9.3.2.3.10.

Seedco Site

As stated in ER Section 9.3.2.4.6, the Seedco site is located within an industrial park and any recreational activities near this site would likely already be impacted by the aesthetics of industrial facilities in the vicinity. However, the Seedco site currently does not have industrial facilities in the industrial park with large cooling towers and associated plumes. The introduction of large plumes from the cooling towers into the skies where there are currently no plumes of this magnitude has the potential to adversely affect the character and quality of views in the area surrounding the Seedco site. These plumes from the proposed new unit at the Seedco site would likely be visible at a considerable distance and would result in moderate impacts on the character and quality of views in the area.

As stated in ER Section 9.3.2.4.10, the overall impacts due to construction and operation of transmission corridors at the Seedco site were determined to be "small to moderate." Because there is no existing substation near the Seedco site, approximately 9.0 miles of new transmission line ROW would need to be constructed and 14.6 miles of existing 230-kV transmission ROW would need to be expanded to reach the nearest potential substation location. Because only 62 percent of the conceptual transmission line route from the Seedco site to the nearest potential substation location along an existing 500-kV transmission line would be adjacent to existing transmission lines (230-kV) and approximately 9.0 miles of the of new transmission line ROW would be required to be constructed, aesthetic impacts due to the construction and operation of transmission lines at the Seedco site beyond the aesthetic impacts already present due to the existing transmission lines would be expected to be moderate.

There are 15 recreational areas within a five mile (8-km) radius of the Seedco site, its associated transmission line corridor or substation. These recreational areas include five fishing/boating access points, one fishing hotspot, two golf courses, one local park/recreational area, one park, one amusement park, one stadium, and three state game lands. The following table identifies each of these resources and their proximity to the transmission line corridor, site boundary or substation (whichever is closest).

Recreational Areas Within 5 Miles of the Seedco Site and Transmission Corridor				
Recreational Location	**Distance to Transmission Corridor/Site Boundary/ Substation**	**Within 5 Miles of Site**	**Within 5 Miles of Transmission Corridor**	**Within 5 Miles of Substation**
Roaring Creek Fishing Hotspot	1.7		X	X
Jepkos Three Ponds Golf Course	3.6		X	X
Bloomsburg Fishing/Boating Access Point	4.9		X	X
Bloomsburg Fairgrounds	4.4		X	X
Bloomsburg Town Park	4.1		X	X
Indianhead Campground	2.8		X	X
Knoebel's Amusement Park	3.0		X	X
State Game Lands Number 58	4.3		X	
Bear Gap Reservoir Fishing/Boating Access Point	2.6	X	X	
McWilliams Reservoir Fishing/Boating Access Point	1.5	X	X	

Recreational Areas Within 5 Miles of the Seedco Site and Transmission Corridor				
Recreational Location	**Distance to Transmission Corridor/Site Boundary/ Substation**	**Within 5 Miles of Site**	**Within 5 Miles of Transmission Corridor**	**Within 5 Miles of Substation**
Kemp Stadium	3.6	X		
State Game Lands Number 84	4.8	X		
Rolling Meadows Golf Course	3.0	X	X	
Paradise Park	2.8	X	X	
State Game Lands Number 329	0.7		X	

As shown in the table above, the closest recreational area is State Game Lands Number 329 (Columbia County Planning and Development, 2010; ESRI, 2010 a, b, c; PDCNR, 2003; PFBC, 2009, 2010; SRBC, 2006). Aesthetic impacts from the presence of cooling towers and potential associated plumes to this recreational area could be minimized through tower design and selection.

The identification of these additional sensitive visual receptors does not impact the initial aesthetic conclusion for the Seedco site and associated transmission line corridor as presented in ER Sections 9.3.2.4.6 and 9.3.2.4.10.

Data Sources:

Columbia County Planning and Development, 2010. Columbia County – Protected Lands and Recreation Resources Map, Website: http://www.columbiapa.org/planning/docs.php, Date accessed: November 2, 2010.

ESRI, 2010a. Golf Courses (layer), Metadata, 2006 series issue, Website: http://www.esri.com/metadata/esriprof80.html.

ESRI, 2010b. Parks (Detailed) (layer), Metadata, 2006 series issue, Website: http://www.esri.com/metadata/esriprof80.html.

ESRI, 2010c. Recreational Areas (layer), Metadata, 2006 series issue, Website: http://www.esri.com/metadata/esriprof80.html.

PDCNR, 2003. Appalachian National Scenic Trail Centerline in Pennsylvania, Website: http://www.pasda.psu.edu/, Data accessed: September 20, 2010.

PFBC, 2009. Fishing Hotspots, Website: http://www.pasda.psu.edu/, Data accessed: September 20, 2010.

PFBC, 2010. Fishing and Boating Access Points, Website: http://www.pasda.psu.edu/, Data accessed: September 20, 2010.

SRBC, 2006. Water Trails within the Susquehanna River Basin, Website: http://www.pasda.psu.edu, Date accessed: September 20, 2010.

COLA Impact:

No changes to the BBNPP COLA ER are required as a result of this RAI response.

RAI No. 5035 EIS 9.3-28

Summary: *This RAI is related to the second alternative sites audit information need G-4.*

Provide definitions of the various terms describing the site boundaries, including the owner controlled area, the project boundary, the parcels, land to be cleared, and acreage impacted.

Full Text (Supporting Information): The applicant stated at the alternative site audit that it would provide definitions of the site boundary terms.

Response:

Alternative Sites

Owner Controlled Areas (OCAs) were not specifically calculated for the Alternative Sites, since OCA is not a defining boundary as related to site development. The two areas calculated and used in specific regard to Alternative Sites are the Site Boundary, which generally provides the total contiguous land available to support new site development, and the ~420 acre development boundary, which is to be cleared for the purposes of development and calculation of project impacts to land, vegetation, wetlands, and streams.

BBNPP Site-specific definitions:

Owner's Property: All property owned by the applicant utility.

Site Boundary: That line beyond which the land or property is not owned, leased, or otherwise controlled by the licensee.

(Owner) Controlled Area: Per 10 CFR 20.1003, "an area, outside of a restricted area but inside the site boundary, access to which can be limited by the licensee for any reason."

Protected Area: That onsite area within the security boundary as defined in each site's Security Plan.

Project Boundary: Includes BBNPP, SSES, and or PPL Electric Utilities (PPL EU) property, and contains lands used to support project construction. The SSES and PPL EU property is expected to be controlled under easements or covenants between BBNPP/SSES/PPL EU.

Limit of Disturbance (LOD): Defined as the discrete land area that is physically affected by project construction and construction support activities. LOD defines the boundary past which no land will be altered in any way. As applicable, LOD includes laydown, modular assembly, and any other off- or near-site project-related activity involving land disturbance on properties controlled by the applicant.

Exclusion Area Boundary (EAB): Per 10 CFR 20.1003, "Exclusion area means that area surrounding the reactor, in which the reactor licensee has the authority to determine all activities including exclusion or removal of personnel and property from the area. This area may be traversed by a highway, railroad, or waterway, provided these are not so close to the facility as to interfere with normal operations of the facility and provided appropriate and effective arrangements are made to control traffic on the highway, railroad, or waterway, in case of emergency, to protect the public health and safety. Residence within the exclusion area shall

normally be prohibited. In any event, residents shall be subject to ready removal in case of necessity. Activities unrelated to operation of the reactor may be permitted in an exclusion area under appropriate limitations, provided that no significant hazards to the public health and safety will result."

COLA Impact:

No changes to the BBNPP COLA ER are required as a result of this RAI response.