

**STATE OF NEW JERSEY  
BOARD OF PUBLIC UTILITIES**

**IN THE MATTER OF THE PETITION OF  
PUBLIC SERVICE ELECTRIC AND GAS  
COMPANY FOR A DETERMINATION  
PURSUANT TO THE PROVISIONS OF  
N.J.S.A. 40:55D-19  
(SUSQUEHANNA-ROSELAND)**

**BPU DOCKET No. : EM09010035**

**TESTIMONY OF STEVEN BALZANO  
ON BEHALF OF INTERVENOR MUNICIPALITIES OBJECTING TO  
SUSQUEHANNA-ROSELAND TRANSMISSION LINE PROJECT**

Mr. Steven Balzano, President of Environmental Strategies Inc., is providing testimony on behalf of the Intervening Municipalities of Hardwick Township, Fredon Township, Andover Township, Byram Township, Sussex County, NJ and Montville Township, Parsippany-Troy Hills Township, East Hanover Township, Morris County, NJ.

In his testimony, Mr. Balzano will discuss the various environmental impacts associated with the proposed Susquehanna-Roseland Project (“Project”) and the requirements for subsequent environmental permits and/or approvals.

1 **Q. Please state your Name, Title and the Name of your Employer?**

2 **A.** My Name is Steven Balzano. I am President of Environmental Strategies, Inc, an  
3 environmental consulting firm in New Jersey.

4 **Q. What is the purpose of your testimony?**

5 **A.** I have been retained to provide a technical review of the proposed Project on  
6 behalf of intervening municipalities of Andover Township, Byram Township,  
7 East Hanover Township, Hardwick Township, Fredon Township, Montville  
8 Township, Parsippany-Troy Hills Township Morris and Sussex Counties, NJ.

9 The purpose of my review is to identify areas of environmental concern for  
10 consideration by the NJ Board of Public Utilities (NJBPU) in the course of their  
11 review of the petition submitted by Public Service Electric and Gas Company  
12 (PSE&G). I have focused my review on the requirements associated with  
13 subsequent environmental approvals and whether the project as proposed to  
14 NJBPU is consistent with those requirements and likely to be approved.

15 **Q. Please describe your educational and professional background?**

16 **A.** I graduated in 1982 from the State University of New York, College of  
17 Environmental Science and Forestry, Syracuse, NY with a BS in Forest Biology.  
18 I have nearly 25 years of professional work experience in natural resource  
19 management, regulatory compliance, environmental impact analysis, and  
20 sustainable land use practices.

21 **Q. Please describe your qualifications and areas of expertise?**

22 **A.** Since 1988 I have provided environmental consulting services and have been  
23 responsible for directing environmental investigations and regulatory compliance

24 efforts for local governing bodies, state and federal agencies, and the private  
25 sector. In that capacity I have direct responsibility for managing professional  
26 services within the following areas of specialization: environmental impact  
27 analysis, water resource management, endangered species biology, terrestrial and  
28 aquatic ecology, wetland ecology, habitat restoration and conservation planning,  
29 cultural resource assessments, sustainable land use practices and regulatory  
30 compliance. I have extensive practical experience with and thorough knowledge  
31 of various federal and state land use regulations including National Environmental  
32 Policy Act, federal Clean Water Act, federal Endangered Species Act, federal  
33 Historic Preservation Act, NJ Freshwater Wetlands Protection Act, NJ Highlands  
34 Water Protection and Planning Act, NJ Flood Hazard Area Control Act, and the  
35 NJ Municipal Land Use Law. I was also previously employed as a Zoologist with  
36 the Wildlife Conservation Society (formally the New York Zoological Society),  
37 as Director of Science and Planning with the NJ Highlands Water Protection and  
38 Planning Council, and as Director of Biodiversity for the PA Department of  
39 Conservation and Natural Resources.

40 **Q. What materials have you reviewed in preparation for your testimony?**

41 **A.** I have reviewed the petition filed by including all supporting testimony, the  
42 exhibits submitted on behalf of PSEG in support of that testimony most notably  
43 the site plans and profile plans submitted by Mr. Crouch and included as exhibit  
44 RFC-3, RFC 4 through RFC-4c; various documents related to load forecasts  
45 prepared by PJM and submitted by Mr. Reynolds and Mr. Khadr; the Alternative  
46 Route Identification Report submitted by Mr. Halpern as Exhibit JH-1; various

47 documents and responses to discovery requests submitted by board staff and  
48 interveners, most notably exhibit ENV-D-3 consisting of application materials,  
49 plans and correspondence submitted by PPL/PSEG to the National Park Service  
50 in support of a request for a Special Use Permit for construction of the Project  
51 within the Delaware Water Gap National Recreation Area and Appalachian  
52 National Scenic Trail, and application materials submitted by PSEG to the NJDEP  
53 and NJ Highlands Council in support of a Highlands Area Determination (HAD)  
54 available at  
55 [http://www.pseg.com/companies/pseandg/powerline/had/Susquehanna-  
57 Roseland%20500KV.pdf](http://www.pseg.com/companies/pseandg/powerline/had/Susquehanna-<br/>56 Roseland%20500KV.pdf) and  
58 [http://www.pseg.com/companies/pseandg/powerline/pdf/pseg\\_amended\\_051909.  
59 pdf](http://www.pseg.com/companies/pseandg/powerline/pdf/pseg_amended_051909.pdf) including PSEG's Comprehensive Mitigation Plan.

59 **Q. Based on the materials you reviewed what federal or state environmental  
60 approvals will be needed before the project can proceed to construction?**

61 **A.** Based on the materials submitted by PSEG on behalf of the petition filed with  
62 NJBPU, the project will require the following major environmental approvals:

63 National Park Service - Preparation of an Environmental Impact Statement  
64 (EIS) in accordance with the requirements under the National Environmental  
65 Policy Act (NEPA) for the construction of the Transmission Line within the  
66 Delaware Water Gap National Recreation Area and Appalachian National Scenic  
67 Trail in Hardwick Township, Sussex County, NJ.

68

69 US Department of Army – Preparation of environmental documentation sufficient  
70 to demonstrate compliance with NEPA for the construction of the Transmission  
71 Line within the Picatinny Arsenal in Jefferson and Rockaway Township, Morris  
72 County, NJ.

73 US Fish and Wildlife Service – Consultation and authorization for an  
74 incidental take as necessary to comply with Section 7 of the federal Endangered  
75 Species Act, and review of impacts to migratory birds under the federal Migratory  
76 Bird Treaty Act.

77 NJ Department of Environmental Protection (NJDEP) – Consultation with  
78 the State Historic Preservation Officer (SHPO) in accordance with section 106 of  
79 the federal Historic Preservation Act.

80 NJDEP – Individual Freshwater Wetland Permit under the NJ Freshwater  
81 Wetlands Protection Act.

82 NJDEP – Stream Encroachment Permit under the NJ Flood Hazard Area  
83 Control Act.

84 NJDEP – Highlands Preservation Area Approval for any portion of the  
85 project that does not qualify for an exemption to the NJ Highlands Water  
86 Protection and Planning Act.

87 NJDEP/State House Commission Approval – Authorization for the  
88 diversion of public park land.

89

90 **Q. Based on your review, are there any potential for significant environmental**  
91 **impacts that may delay or prohibit construction of the project as currently**  
92 **proposed?**

93 **A.** Yes. Most notably are the potential for impacts to the Delaware Water Gap  
94 National Recreation Area and Appalachian National Scenic Trail which will be  
95 subject to preparation of an Environmental Impact Statement, the highest level of  
96 review afforded a project under the National Environmental Policy Act (NEPA),.  
97 Also of note are concerns regarding the exceptional quality of the natural  
98 resources that will be impacted by construction of the proposed project within  
99 Delaware Water Gap National Recreation Area including the potential for  
100 significant impacts to federally listed endangered and threatened species, state  
101 listed endangered and threatened species, scenic and recreational resources, as  
102 well as significant migratory bird flyway and concentration areas such as the  
103 Delaware River and the Kittatinny Mountains.

104 Secondly is the uncertainty with respect to the approvals needed from the  
105 US Department of Army for access and construction activities within Picatinny  
106 Arsenal. Most notable is the proposal by PSEG to construct the new transmission  
107 line along the existing right-of-way which encroaches within explosive arcs,  
108 referred to as Quantity Distance Arcs, associated with on-site munitions storage  
109 which raise question regarding the ability of the proposed project to satisfy  
110 reliability standards. Also of note are concerns regarding the exceptional quality  
111 of the natural resources that will be impacted by construction of the proposed  
112 project within Picatinny Arsenal including two federally listed endangered and

113 threatened species, numerous state listed endangered and threatened species,  
114 impacts to exceptional wetlands and streams, as well as a significant migratory  
115 bird flyway and concentration areas such as Lake Denmark.

116 In both cases above construction activities and construction access  
117 requirements have the potential to result in significant irreversible and  
118 unavoidable adverse impacts to state and federally listed endangered and  
119 threatened species that may be detrimental to the continued survival of the local  
120 population and may in of itself serve as a basis for denial of subsequent agency  
121 approvals, including NEPA and NJDEP Freshwater Wetlands permit  
122 authorization.

123 **Q. Do any of these approvals require a review of alternatives?**

124 **A.** Yes. NEPA requires an alternatives analysis. PSEG has been notified by the  
125 National Park Service (NPS) that preparation of an Environmental Impact  
126 Statement under NEPA will be required prior to the NPS taking any action  
127 relative to the authorization of the Special Use Permit that is required prior to  
128 proposed construction within the Delaware Water Gap National Recreation Area.  
129 The project will also require approval from the US Department of Army for  
130 construction activities within Picatinny Arsenal, a federal military installation,  
131 which will also require some level of review under NEPA.

132 In addition, the project will also require an Individual Wetland Permit  
133 from NJDEP under the New Jersey Freshwater Wetland Protection Act. NJDEP  
134 approvals with therefore also require a review of alternatives to the project.

135

136 **Q. What is NEPA?**

137 **A.** The National Environmental Policy Act (NEPA) which was enacted by congress  
138 in 1969 established a national policy for the protection and maintenance of the  
139 environment by providing a process that all federal agencies must follow prior to  
140 taking any action that may result in significant adverse environmental impact.

141 NEPA established the President's Council on Environmental Quality (CEQ). CEQ  
142 in turn created regulations for implementing NEPA. Because NEPA is a  
143 procedural law, CEQ requires each federal agency to write their own NEPA  
144 compliance regulations to fit their particular programs.

145 NEPA requires all Federal agencies to, among other things:

- 146 1. Assess the environmental impacts of federal actions, including decisions  
147 such as issuing permits for development activities on Federal lands.
- 148 2. Consider the environmental impacts in making decisions.

149 In the course of rendering a decision the agency must prepare an environmental  
150 document that evaluates and if necessary proposes alternatives that would avoid  
151 the potential for significant environmental impacts.

152 Also, in 1970 Congress enacted the federal Clean Air Act which gave the  
153 US Environmental Protection Agency (EPA) broad review responsibilities under  
154 NEPA. Section 309 of the Clean Air Act gave the EPA the authority to review the  
155 environmental impact of any Federal action to which the National Environmental  
156 Policy Act applies and make a finding as to whether the proposed Federal action  
157 is satisfactory from the standpoint of public health, welfare and environmental  
158 quality. When the proposed action is subject to preparation of an Environmental



159 Impact Statement (EIS), the EPA also is also responsible for making a finding that  
160 the environmental analyses contained in the EIS is adequate and if necessary refer  
161 the matter to the CEQ.

162 **Q. Has the NPS established there own compliance regulations under NEPA?**

163 **A.** Yes. Under NPS Director Order #12, the NPS sets forth the policy and  
164 procedures by which the National Park Service carries out its responsibilities  
165 under NEPA.

166 **Q. Can NPS deny needed approvals for this project?**

167 **A.** Yes. Implementation of NPS Director Order #12 may lead to a recommendation  
168 to deny PSEGs request for a construction permit for the project if the project is  
169 found to impair one or more park resources or otherwise violates the NPS Organic  
170 Act. NPS can also recommend that PSEG pursue an alternative to the proposed  
171 project that would not require impacts to the National recreation Area.

172 **Q. What is the NPS Organic Act?**

173 **A.** The NPS Organic Act is a reference to the congressional action that established  
174 the National Park Service in 1916. In part the Act requires that the NPS “promote  
175 and regulate the use of the Federal areas known as national parks, monuments,  
176 and reservations hereinafter specified by such means and measures as conform to  
177 the fundamental purposes of the said parks, monuments, and reservations, which  
178 purpose is to conserve the scenery and the natural and historic objects and the  
179 wildlife therein and to provide for the enjoyment of the same in such manner and  
180 by such means as will leave them unimpaired for the enjoyment of future  
181 generations.”

182 **Q. Will the NPS be required to conduct an alternatives analysis as part of its**  
183 **NEPA review?**

184 **A.** Yes. In its regulations implementing NEPA at 40 CFR 1502.14 the CEQ requires  
185 that all federal agencies conduct an Alternatives Analysis as part of an EIS. CEQ  
186 describes the alternatives analysis section as the "heart of the EIS", and requires  
187 all agencies to:

188 (a) Rigorously explore and objectively evaluate all reasonable alternatives and for  
189 alternatives which were eliminated from detailed study, briefly discuss the  
190 reasons for their having been eliminated.

191 (b) Devote substantial treatment to each alternative considered in detail including  
192 the proposed action so that reviewers may evaluate their comparative merits.

193 (c) Include reasonable alternatives not within the jurisdiction of the lead agency.

194 (d) Include the alternative of no action.

195 (e) Identify the agency's preferred alternative or alternatives, if one or more exists,  
196 in the draft statement and identify such alternative in the final statement unless  
197 another law prohibits the expression of such a preference.

198 (f) Include appropriate mitigation measures not already included in the proposed  
199 action or alternatives.

200 **Q. Can you explain what type of alternatives may be considered in the course of**  
201 **review and approval of the project?**

202 **A.** Depending on the degree and severity of the impact on a particular resource of  
203 concern to the reviewing agency, and the number of comments submitted during

204 the EIS scoping process, the following alternatives may need to be addressed in  
205 the course of preparation of the EIS document:

- 206 1. Alternative methods to address identified reliability violations, including  
207 but not limited to generation and demand response options that would  
208 eliminate the need for some or all of the proposed transmission line  
209 upgrades and/or improvements.
- 210 2. Alternative construction techniques that may substantially change the  
211 project design including but not limited to changes in the ROW alignment;  
212 methods of construction and access; the number of towers proposed, as  
213 well as their height, design and location; and the number and height of  
214 conductors necessary to satisfy the project need.
- 215 3. Alternative load forecasts that examine the affect of changes in land use,  
216 energy generation and consumer demand on transmission reliability  
217 violations.

218 **Q. Has PSEG or PJM considered any alternatives to the proposed**  
219 **Susquehanna-Roseland transmission line project?**

220 **A.** Yes. PJM and PSEG have considered alternative transmission system upgrades  
221 and routing alternatives to address the reliability concerns identified by PJM.

222 **Q. In your opinion are the alternatives conducted by PSEG or PJM sufficient to**  
223 **address the reasonable alternatives necessary for environmental agency**  
224 **approval?**

225 **A.** No. As will be explored in greater detail in testimony provided by Dr. Sovacool  
226 there may be a number of alternatives that have not been considered by PSEG or

227 PJM at this time. Any one of these alternatives may avoid the need for some or  
228 all of the proposed transmission line improvements and may be more appropriate  
229 for consideration as the “preferred alternative” under NEPA to avoid or minimize  
230 environmental impacts.

231 In my opinion, the alternatives considered by PJM and PSEG were  
232 generally focused on upgrades to the transmission system and did not consider all  
233 reasonable alternatives that may be available to avoid the potential for significant  
234 environmental impact.

235 For example, according to testimony provided by Mr Herling “PJM is not  
236 able to direct or otherwise control the siting, capacity, or timing of new generation  
237 in high-load areas. PJM is not able to compel or otherwise control the design and  
238 implementation of demand side management (“DSM”) efforts that might, if  
239 properly placed and of sufficient dimension, delay or defer the need for  
240 transmission reinforcements. PJM can only direct the reinforcement of  
241 transmission facilities to address reliability violations, either through the  
242 modification of existing transmission facilities (which PJM quite frequently  
243 directs) or the construction of new transmission facilities.” Therefore, due to the  
244 limited authority of PJM to consider all reasonable alternatives, there may be  
245 other mechanisms, such as conservation, generation and/or DSM alternatives  
246 available, that may “defer the need for transmission reinforcements” and in doing  
247 so help to avoid or minimize the potential for significant environmental impacts to  
248 state or federal trust resources.

249

250 In addition, the Alternative Route Identification Report submitted by Mr.  
251 Halpern as Exhibit JH-1 is not in itself sufficient to address the range of  
252 alternatives that may be considered as part of an EIS. As indicated in testimony  
253 provide by Mr. Pollock and exhibits submitted as ENV-D-3 there are still a  
254 number of investigations that are ongoing to document the environmental impacts  
255 of the project including wetlands, endangered/threatened species and  
256 archeological resources. These studies will need to be incorporated into any  
257 alternative route evaluation incorporated into the EIS.

258 **Q. Are there any other federal agencies that may be involved in reviewing the**  
259 **project?**

260 **A.** NPS has the ability to request that other federal agencies participate in the EIS  
261 process that may have the expertise or authority to assist in a review of  
262 alternatives. Because the RTEP is prepared by PJM under the authority of the  
263 Federal Energy Regulatory Commission (FERC), and whereas the NEPA  
264 documentation will likely entail the review of load forecasts and review of  
265 alternatives such as conservation, generation or demand response which are  
266 beyond the authority of the PJM but that may materially affect the viability of any  
267 one or more alternative to the proposed Susquehanna-Roseland Project, NPS may  
268 request that the FERC participate as a cooperating agency under NEPA.

269 **Q. In your opinion are the mitigation measures proposed by PSEG in their**  
270 **Comprehensive Mitigation Plan sufficient to satisfy permit requirements**  
271 **and/or agency approvals?**

272

273 A. No. PSEG previously prepared a Comprehensive Mitigation Plan (CMP) that was  
274 submitted to the NJDEP and NJ Highlands Council as part of their review under a  
275 Highlands Applicability Determination (HAD). The CMP consists of an outline  
276 of measures that PSEG is proposing to take to minimize environmental impacts  
277 but lacks any specificity or documentation demonstrating the degree of impact to  
278 any particular resource which is a requisite to determine to what extent the CMP  
279 is adequate or appropriate to fully mitigate those impacts and in doing so address  
280 the regulatory requirements of a particular state or federal agency. Based on  
281 responses to discovery requests submitted by Mr. Pollock and Mr. Halpern,  
282 wetland delineations are ongoing (ENV-14), archeological investigations are only  
283 80% complete (ENV-D-4), and threatened and endangered species surveys are  
284 ongoing (ENV-D-2). At this time PSEG has not produced reports documenting  
285 the extent of or anticipated degree of impact to any of these critical environmental  
286 issues which will be the subject of subsequent environmental review and approval  
287 under both NEPA and NJDEP permit authorization.

288 As such, until the investigations documenting the degree and severity of  
289 the impacts is complete then the elements of the CMP can not be finalized. The  
290 CMP will need to be finalized before it is of sufficient detail to support an  
291 approval under NEPA, the Endangered Species Act, issuance of a permit under  
292 the Freshwater Wetlands Protection Act, or Highlands Preservation Area  
293 Approval from NJDEP, should one be required.

294

295 **Q. Based on your review of the information submitted by PSEG, is an In-**  
296 **Service Date of June 1, 2012 realistic in light of the agency approvals that are**  
297 **required for this project?**

298 **A.** No. It is unlikely that PSEG will have all agency approvals in time to allow for  
299 completion of construction by June 1, 2012. Based on testimony submitted by  
300 PSEG the anticipated project schedule assumes a 2 ½ year construction schedule  
301 based on all environmental approvals being obtained by the end of 2009.

302 The two approvals needed for the project that will have the greatest affect  
303 on the timing of the start of construction include the preparation of an EIS for the  
304 NPS, and obtaining an Individual Wetland Permit from NJDEP. Typically  
305 because the NEPA process requires federal review and approval of the project  
306 alternative, as well as coordination with all involved state agencies, the NEPA  
307 review may result in substantial changes to all or part of the proposed project.  
308 Therefore, final issuance of any state permits approvals would typically not occur  
309 until such time as review under NEPA is complete.

310 Preparation of the EIS for the NPS can not commence until completion of  
311 all required studies identified during scoping which may include an alternatives  
312 analysis, archeological investigations, endangered/threatened species surveys, and  
313 wetland delineations. Given the level of public opposition and concern regarding  
314 the potential for significant environmental impacts due to this project, there is also  
315 likely to be substantial public comment that will need to be addressed prior to  
316 finalizing the EIS. As such, once all required studies are completed the timing for  
317 obtaining NEPA clearances would at a minimum require 18 to 24 months to

318 complete. Final NJDEP permit action may be obtained 3 to 6 months thereafter  
319 not including the time necessary to allow for appeals of any agency action.  
320 Therefore, final agency approvals will likely not be obtained by PSEG prior to  
321 mid 2011 at the earliest.

322 **Q. Does this conclude your testimony?**

323 **A. Yes**