

**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-
56 Roseland%20500KV.pdf](http://www.pseg.com/companies/pseandg/powerline/had/Susquehanna-
56 Roseland%20500KV.pdf) and
57 [http://www.pseg.com/companies/pseandg/powerline/pdf/pseg_amended_051909.
58 pdf](http://www.pseg.com/companies/pseandg/powerline/pdf/pseg_amended_051909.
58 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**