

APPENDIX I – RESPONSE TO PUBLIC COMMENTS ON THE DEIS

Comments on the DEIS were received from 191 individuals and 6 state or federal agencies. This tally does not include all the signers of two petitions (one with 29 signatures in the Alternative 1 Corridor B area and one with 377 signatures in the Alternative 1 Corridor D area). TVA also received comments throughout the transmission line siting and analysis process from various public meetings with potentially affected property owners, community leaders, and other stakeholders as part of its transmission line siting process. These comments were taken into account as the line siting process progressed and identified line routes and segments were adjusted appropriately. The comments on the DEIS and TVA's responses are listed below and grouped into 26 topic areas. The topic areas are:

Purpose and Need	Managed Areas
Right-of-Way Acquisition	Visual Resources
Right-of-Way Maintenance	Socioeconomics
Alternatives	Property Taxes
Public Involvement	Electric and Magnetic Fields
NEPA Process	Aviation
Commitments and Mitigation	Air Quality
Transmission Line Construction	Land Use and Prime Farmland
Project Financial Considerations	Cultural Resources
Groundwater and Geology	Property Values
Surface Water	Environmental Justice
Flooding and Floodplains	Health and Safety
Wetlands	Noise
Vegetation, Wildlife, and Endangered and Threatened Species	Miscellaneous

Comments addressing the same specific issues were summarized and combined to avoid repetition, and in many of these combined comments the exact wording of the comments was not always used. Also, in many cases the commenters listed with a combined comment may not have raised all of the points in the combined comment, but they supported the primary premise or issue captured by the combined comments.

Following each comment is the number of commenters who made the comment and, in parentheses, an identification number for each commenter. Individual commenters and their identification numbers are listed in Table G-1.

The full text of comments from state and federal agencies is listed, and the commenting agencies are identified by identification number and agency acronym. The following agencies commented on the DEIS:

- U.S. Environmental Protection Agency (EPA)
- U.S. Department of Interior (USDI)

- Tennessee Department of Environment and Conservation, Division of Natural Heritage (TDEC)
- Tennessee Department of Economic & Community Development (TDECD)
- U.S. Army Corps of Engineers (USCOE), and
- U.S. Public Health Service – Centers for Disease Control (CDC).

Table I-1. Commenters on the Draft EIS.

Commenter	City	State	Comment Numbers
Abrams, Wayne & Betsy	Clarksville	TN	119
Adkins, Jerry W.	Clarksville	TN	48
Adkins, Margaret	Clarksville	TN	190
Anderson, Richard	Clarksville	TN	168
Asher, Christine A.	Clarksville	TN	181
Baggett, Sallie	Clarksville	TN	76
Baggett, Lillie	Clarksville	TN	100
Baggett, Herb	Clarksville	TN	101
Barker, Jon	Clarksville	TN	132
Bartula, Tracey Williams	Rock Hill	SC	106
Bastin, Suva P.	Clarksville	TN	17
Bastin, Jack	Clarksville	TN	188
Bates, Terry	Clarksville	TN	10
Bates, Sandra	Clarksville	TN	11
Beach-Seip, Barbara	Clarksville	TN	95
Beightol, Bonnie	Clarksville	TN	120
Bird, Robert D.	Clarksville	TN	137
Bologna, Saba E.	Clarksville	TN	57
Bologna, Thomas J.	Clarksville	TN	58
Britton, Nancy	Clarksville	TN	110
Brooks, Jack D.	Clarksville	TN	72
Bryant, Scott	Clarksville	TN	172
Bush, MD, Joel G.	Clarksville	TN	68
Canfield, Grant L.	Clarksville	TN	157
Cassetty, Tom & Bonnie	Clarksville	TN	82
Chester, Donald	Woodlawn	TN	2
Choate, Jimmy	Clarksville	TN	49
Clark, Jeane	Clarksville	TN	16, 188
Clark, James	Clarksville	TN	188
Coate, David L.	Clarksville	TN	45
Coate, Joy	Clarksville	TN	46
Cochran, Clifford H.	Indian Mound	TN	64
Cochran, Mrs. Jamie	Indian Mound	TN	160
Condict, Kirstin	Nashville	TN	193
Cook, Charles	Clarksville	TN	87
Cook, Mrs. Anna M.	Clarksville	TN	92
Cox, Michele	Clarksville	TN	188
Crow, Charles & Dinah	Cumberland City	TN	23
Cumberland, Ricky	Clarksville	TN	180

Commenter	City	State	Comment Numbers
Cunningham, Carol			167
Deeds, Mancy & Lary	Clarksville	TN	39
Denny, Melody	Clarksville	TN	47
Dr2276	Clarksville	TN	154
Dueker, Mary	Clarksville	TN	165
Ellis, David & Jeanne	Clarksville	TN	147
Ellis, Dr. Jennifer	Clarksville	TN	178
Ellis, M.D., Randall	Clarksville	TN	162
Environmental Protection Agency, Heinz J. Mueller, Chief	Atlanta	GA	195
Epps, Sherry	Clarksville	TN	3
Estes, James	Clarksville	TN	161
Farris, Margaret	Clarksville		99
Frazier, John & Carolyn	Clarksville	TN	129
Gentz, Dennis & Lori	Clarksville	TN	43
Gigandet, Michael	Clarksville	TN	56
Gilman, Gregory	Clarksville	TN	158
Grant, Kathy	Clarksville	TN	83
Greaves, Molly	Clarksville	TN	170
Guthrie, Chuck & Jewell	Clarksville	TN	67
Hagewood, Stacey	Adams	TN	12
Hall, Rachel & Rolland	Clarksville	TN	18
Halliday, Thomas	Clarksville	TN	153
Hamilton, Steve W.	Clarksville	TN	188
Hampton, Steve	Clarksville	TN	159, 188
Harris, Robert & Barbara	Clarksville	TN	131
Havens, Greg	Clarksville	TN	4, 188
Havens, Paul	Clarksville	TN	37
Havens, Dorothy Williams	Clarksville	TN	113, 188
Havens, Corey	Nashville	TN	150
Havens, Lea	Nashville	TN	151
Hibbs, Ray	Clarksville	TN	79
Hoekstra, Ruth	Clarksville	TN	122
Hoekstra, John	Clarksville	TN	187
Hogue, Rebecca	Clarksville	TN	188
Holt, J. S.	Clarksville	TN	73
Howard III, David William	Clarksville	TN	20
Hutton, W. S.	Clarksville	TN	78
J. Frank Miller Trust	Clarksville	TN	184
J. Frank Miller Trust, c/o Robert H. Moyer	Clarksville	TN	186
Janese, Richard P.	Clarksville	TN	149
Jinnett, Buena	Clarksville	TN	14
Jones, Ann S.	Clarksville	TN	27
Jones, Jr., Lytle	Clarksville	TN	26
Kasper, Elizabeth A.	Clarksville	TN	133
Lavery, James P.	Clarksville	TN	40
Lavery, Valerie W.	Clarksville	TN	41

500-kV Transmission Line In Middle Tennessee

Commenter	City	State	Comment Numbers
Ledbetter, Jr., Buford B.	Clarksville	TN	55
Ledbetter, M.D., B. B.	Clarksville	TN	130
Leddy, John T.			163
Lee, Angie & family	Clarksville	TN	86
Lewins, Kristin S.	Clarksville	TN	77
Lick, C	Clarksville	TN	13
Long, Joey	Clarksville	TN	164
Lowe, Reginald S.	Clarksville	TN	188
Lu, M.D., George	Clarksville		96
Mann, Jerry & Margaret	Clarksville	TN	144
Marks, Julia W.	Clarksville	TN	38
Mathews, A. G. (Gary)	Clarksville	TN	123
Matlock, Constance Marks	Columbia	TN	142, 188
McClain, Anthony W.	Clarksville	TN	118
McCoy, Ralph H.	Clarksville	TN	188
McCullough, M.D., J. Scott	Clarksville	TN	166
McNiel, Mark	Clarksville	TN	60
Meadows, Julia	Adams	TN	50, 188
Meyer, Robert H.	Clarksville	TN	85
Miller, Mark			34
Miller, Rebecca	Clarksville	TN	121
Miller, Anne	Clarksville	TN	185
Milliken, Gloria & Bill	Clarksville	TN	188
Minnieham, Joseph N.	Clarksville	TN	97
Minnieham, Gayle M.	Clarksville	TN	98
Mobley, Mike	Clarksville	TN	81
Moore, Thomas	Clarksville	TN	111
Moore, Elizabeth S.	Clarksville	TN	134
Moore, Crosby	Clarksville	TN	143, 188
Morcerro, Madeline	Clarksville	TN	136
Morgan, R. D.	Clarksville	TN	127
Morgan, Gracie	Clarksville	TN	128
Morgan, Mary Beth	Clarksville	TN	148
Moseley, Joan & Andrew	Clarksville	TN	70
Muckleroy, Theresa			84
Neblett, Margaret	Clarksville	TN	71
Northington, Nancy F.	Clarksville	TN	90
Nyers, Cliff & Annette	Clarksville	TN	51
Ontiveros, Robert			169
Painter, Jewell & Lew	Clarksville	TN	125
Palmer, N. Sue Van Sant	Nashville	TN	80
Palmer, Kenneth M.	Clarksville	TN	91
Parcells, Frank E.	Clarksville	TN	155
Parker, Kelly	Clarksville	TN	94
Parker, Jerry	Clarksville	TN	114
Parker, Chris	Clarksville	TN	115
Parker, Gilbert	Clarksville	TN	116
Parker, R. V.	Clarksville	TN	188

Commenter	City	State	Comment Numbers
Pearson, Suzanne	Clarksville	TN	175
Phares, Julia Meadows	Clarksville	TN	15
Phillips, Jim & Ann	Clarksville	TN	103
Podell, Barry	Clarksville	TN	188
Powell, James Ray	Clarksville	TN	8
Pratt, Ben & Lorraine	Clarksville	TN	135
Priest, William T.	Clarksville	TN	63
Pritchett-Dixon, Elizabeth	Clarksville	TN	42
Raker, Tom & Kathy	Clarksville	TN	146
Rank, James & Shirley	Clarksville	TN	107
Reser, Jim & Cathy	Clarksville	TN	88
Rhemann, Debra G.	Clarksville	TN	35
Rhemann, Jr., Ralph D.	Clarksville	TN	36
Rhoads, Mrs. Reginald F	Cunningham	TN	182
Rhoads, Jo	Clarksville	TN	188
Rice, Fredie L. & Starlit M.	Clarksville	TN	173
Riggins, Lauren	Clarksville	TN	5
Ryan, Garland	Clarksville	TN	156
Rye, Robby	Clarksville	TN	75
Sanders, Alvi	Clarksville	TN	52
Sanders, Carma J.	Clarksville	TN	53
Savannah West Homeowner's Association, J. Lee Powell, President	Clarksville	TN	117
Schaaf, Derek	Clarksville	TN	69
Schaaf, Suzanne M.	Clarksville	TN	177
Schiller, Joseph R. & Sarah L.	Clarksville	TN	102
Seay, Suzanne & Steve	Clarksville	TN	9
Shippy, Glen			89
Skinner, Benny, Montgomery County Commission	Clarksville	TN	176
Slater, Victoria E.	Clarksville	TN	44
Sloop, Cassandra	Clarksville	TN	139
Stanfill, Wayne	Clarksville	TN	32
Stanfill, Dawn	Clarksville	TN	33
Stanley, Jack D.	Clarksville	TN	109
Stevenson, Jane	Clarksville	TN	65
Stevenson, Harold T.	Clarksville	TN	66
Stevenson, Kent	Clarksville	TN	145
Stratton, James R.	Clarksville	TN	188
Strickland	Clarksville	TN	188
Stringer, Terry	Clarksville	TN	21
Stringer, Wanda	Clarksville	TN	29
Suiter, Donald	Clarksville	TN	6
Suiter, Dana	Clarksville	TN	152
Taylor, Paulette	Clarksville	TN	25
Taylor, Arthur J.	Clarksville	TN	28
Taylor, Nancy	Clarksville	TN	188, 189

500-kV Transmission Line In Middle Tennessee

Commenter	City	State	Comment Numbers
Taylor, Michael M.	Clarksville	TN	188, 189
Tennessee Department of Economic and Community Development, Wilton Burnett, Jr., Commissioner	Nashville	TN	194
Tennessee Department of Environment and Conservation - Division of Natural Heritage, Kirstin Condict	Nashville	TN	193
Thompson, Dennis L.	Clarksville	TN	54
Turner, Charlotte	Clarksville	TN	141
Uffelmann, Minoa	Clarksville	TN	112
U.S. Army Corps of Engineers, Lisa R. Morris	Nashville	TN	196
U.S. Department of Interior, Gregory Hogue	Atlanta	GA	192
U.S. Public Health Service – Centers for Disease Control, Dr. Joe Paul	Atlanta	GA	191
Vephdeffer, Robert S.	Clarksville	TN	19
Wagoner, Thomas D.	Clarksville	TN	126
Wallace, William E.	Clarksville	TN	59
Wallace, Edward D. & Ladonna C.	Clarksville	TN	179
Waters, Mrs. Charles M.	Clarksville	TN	61
Waters, Charles	Clarksville	TN	62
Wayne, Paul E	Clarksville	TN	7
Whitus, Brian	Clarksville	TN	138
Wilbur, Barbara B.	Clarksville	TN	124
Williams, Shane	Wentzville	MO	1
Williams, Marie A.	Clarksville	TN	22
Williams, Willie C.	Clarksville	TN	30, 188
Williams, Nancy F.	Clarksville	TN	31, 188
Williams, W. S.	St. Louis	MO	104
Williams, Rick	Clarksville	TN	105
Williams, Robert M.	Memphis	TN	183
Windham, Cedric	Clarksville	TN	140
Windham, Stephanie	Clarksville	TN	174
Winn, Teresa	Clarksville	TN	188
Winn, Mark	Clarksville	TN	188
Winters, Scott J.	Clarksville	TN	171
Wolfe, R.			93
Worth, David	Clarksville	TN	188
Worth, Portia	Clarksville	TN	188
Yarbrough, L. C.	Cunningham	TN	24
Yarbrough, Robert Earl	Clarksville	TN	74
Young, Robert S.	Clarksville	TN	108

COMMENTS AND RESPONSES BY TOPIC

Purpose and Need

1 The DEIS does not clearly justify the need for the new transmission line.

N=3 (81, 105, 102)

Response: TVA's goal is to supply reliable service to its customers. This is done by using the industry-accepted North American Electric Reliability Council (NERC) standards for planning a reliable power system. These standards include a specification that a utility must not have a blackout as the result of the loss of two power system elements. TVA evaluated double contingencies in middle Tennessee and found a potential for such a blackout. In addition, there is the potential for instability of the Cumberland Fossil Plant and Paradise Fossil Plant affecting approximately 3,500 MW of generating capacity. If lost during a peak load period, this generation would be difficult if not impossible to replace. This was demonstrated in the Northeast blackout in August 2003.

2 The lack of a fixed date on which the line is needed is evidence of inadequate analysis of the need for this project.

N=3 (81, 105, 142)

Response: The need for the transmission line, as described above, exists today. The earliest practicable date for the proposed transmission line to be in operation is November 2007.

3 When will the capacity of the existing high voltage lines be exceeded?

N=5 (7, 81, 105, 166, 182)

Response: This project is not needed because of overloaded transmission lines. Instead, as described above in the response to Comment 1, it is to remedy problems that could occur under certain conditions such as the loss of existing transmission lines.

4 What peak times/months are the basis for needing this transmission line?

N=1 (117)

Response: The proposed transmission line is needed year round (during peak summer for blackout potential and nine months of the year for generator instability).

5 What percent of the load carried by the new line will serve Montgomery County and what percent will serve Davidson County? Based on projected growth rates, how will this change over time?

N=3 (7, 166, 169)

Response: The proposed transmission line would be a part of an integrated network, and power would flow freely throughout Middle Tennessee as needed.

- 6 The projected electrical demand growth rates appear to be based on the 1995 Energy Vision 2020 report. Given the age of this report and current economic downturn, are these projections still valid?

N=1 (105)

Response: TVA updates its load forecast annually and constantly revises its plans to accommodate changes in the load forecast. The recent economic downturn has not been accompanied by a significant reduction in load growth in Middle Tennessee.

- 7 Why spend millions to transmit power from a coal-burning facility, if TVA is making a “Green Power Switch” and sales of green power are exceeding expectations? Go forward, not backward.

N=9 (5, 9, 25, 44, 65, 73, 79, 113, 178)

Response: TVA is adding alternative sources of energy to its generation mix. While the demand for Green Power has exceeded expectations, it constitutes a very small percentage of TVA’s total generation. Even if growth of the Green Power Switch program was to greatly accelerate, it would not be adequate to address the need for this project in a reasonable time period.

- 8 If reasonable conservation measures are enacted, would the line still be needed?

N=3 (7, 81, 105)

Response: Yes. Conservation alone is not a practicable means to address the need for the proposed transmission line.

- 9 The increased utilization of energy conservation, distributed generation including alternative energy sources such as wind, solar, biomass, and landfill gas, as well as load management would mitigate the need for the new transmission line.

N=4 (44, 60, 141, 188)

Response: See response to Comment 7.

- 10 If interruptible power options with industrial customers were enacted, or other measures were taken to reduce peaks, would the line still be needed?

N=2 (7, 117)

Response: The scenarios described in the Purpose and Need section of Chapter 1 of this EIS which could lead to loss of service can occur in less than one second. Industrial customers with interruptible power options are given at least five minutes to curtail load, and thus such measures do not eliminate the need for the proposed transmission line.

- 11 The EIS states that system stability could be threatened. Generators at the Cumberland and Paradise plants are protected by systems to ensure they will not be affected by load variances.

N=1 (81)

Response: If system instability occurs, damage may occur to a generator in less time than that required for protective equipment to operate. However, the primary reason for this project is to maintain reliable service to Middle Tennessee consumers of power.

- 12 If the new line is built, and the line between the Montgomery and Davidson substations is lost, would the risk of damage to generating equipment and loss of service still occur?

N=1 (7)

Response: No.

- 13 I question the need for an additional transmission line out of Cumberland Fossil Plant.

N=1 (124)

Response: Please see the Purpose and Need section of Chapter 1 and the response to Comment 1.

- 14 The EIS states that Nashville has a total load of 4000 MW and later notes that an on-peak reduction of 4000 MW is not possible. It would not seem necessary to eliminate the entire Nashville load – only a small portion of it.

N=1 (81)

Response: This comment appears to misunderstand the discussion in Section 2.3.2. The amount of peak load that would have to be reduced is “at least 4,000 MW.” This is not the entire load..

- 15 The DEIS cites the need to connect new generating facilities in the western portion of the TVA system. Are these facilities planned or completed? The DEIS fails to address alternatives involving other 500-kV substation or connecting/expanding other sources of new generation.

N=1 (105)

Response: The new generating facilities discussed are natural-gas fired plants owned by TVA and independent power producers. TVA has no plans for additional generating facilities in the western portion of the TVA system. The alternative of an additional 500-kV substation is discussed in Section 2.3 of the EIS.

- 16 The DEIS fails to assess the probability of “the loss of two or more of these lines” as well as of the “certain contingencies” in the statement “forecasted to exceed the capacity of the 500-kV transmission system for certain contingencies.”

N=1 (105)

Response: See the response to Comment 1.

- 17 Why is the transmission line being routed through Montgomery County instead of directly to Nashville/Davidson County, where the need is greater?

N=78 (3, 12, 15, 18, 20, 22, 25, 26, 27, 29, 30, 31, 35, 36, 37, 39, 42, 44, 46, 47, 49, 52, 56, 57, 59, 60, 61, 62, 63, 64, 66, 67, 68, 69, 70, 72, 73, 74, 76, 77, 82, 85, 87, 88, 90, 101, 108, 109, 110, 118, 125, 127, 135, 137, 139, 141, 142, 143, 145, 146, 150, 155, 160, 162, 163, 164, 166, 168, 169, 170, 172, 176, 179, 182, 183, 185, 189)

Response: One of the reasons for preferring the Cumberland–Montgomery alternative over the Cumberland Davidson alternative to avoid having two strategically important transmission lines in close proximity to each other. If the new line is routed from Cumberland to Davidson in the same area as the existing Cumberland-Davidson 500-kV TL, there is an increased risk of a common failure from an external event such as a tornado.

18 What is the real reason for needing the additional 500-kV line corridor? To supply Davidson County? Montgomery County? Triangulate a power grid?

N=1 (89)

Response: See the Purpose and Need section of Chapter 1 as well as the response to Comments 1 and 17.

19 Clarkesville-Montgomery County does not need any more power lines.

N=1 (84)

Response: Comment noted. See the Purpose and Need section of Chapter 1, as well as the Preferred Alternative section in Chapter 2.

20 The people most affected by the proposed transmission line (Alt. 1 Corridor B) will ultimately receive no benefit from it.

N=1 (123)

Response: The proposed transmission line would improve reliability throughout Middle Tennessee.

21 Few landowners in the Cunningham area (Alt. 1 Corridor B) and many others around Clarksville are concerned with the electrical needs of the Montgomery Business Park.

N=1 (63)

Response: While the proposed transmission line is not being built to specifically serve the Montgomery Business Park, it would improve the reliability of service to the Business Park as well as the entire Middle Tennessee area.

22 Is the proposed transmission line being built to enable TVA to expand its power sales to other states?

N=1 (3)

Response: No. The Purpose and Need for the proposed transmission line is described in Chapter 1 of the EIS.

- 23 Since TVA has been selling power to other parts of the country, it does not seem that our local supply would be inadequate.

N=1 (74)

Response: Under the TVA Act, TVA buys power from and sells power to the 11 bordering utilities interconnected to it. TVA's analyses show that for the double contingencies that are the concern in the Middle Tennessee area, the local supply would be inadequate without the proposed transmission line. See the Purpose and Need section of Chapter 1 and the response to Comment 1.

Alternatives

- 24 The DEIS violates the spirit and intent of NEPA by not adequately considering all viable alternatives to constructing a new transmission line.

N= 2 (102, 105)

Response: As required by NEPA regulation (40 CFR § 1502.14), TVA has considered all reasonable alternatives. TVA employs a comprehensive line routing process that considers a number of criteria, including potential environmental impacts and public concerns, in an iterative fashion. TVA adjusts proposed line routes or corridors in response to identified impacts and concerns while increasing the details of analyses, focusing on the adjusted line routes. It eventually identifies a preferred route or routes. This process ensures the fullest consideration of potential impacts and public concerns throughout the siting process beginning early in that process. It also focuses analytical resources on "alternatives" that deserve serious consideration while other alternatives with higher costs, technical feasibility problems and unacceptable potential environmental impacts are winnowed out earlier in the routing process.

- 25 Why are upgrades to existing lower voltage transmission lines not being considered?

N=43 (2, 3, 15, 17, 22, 23, 25, 29, 32, 42, 58, 59, 60, 66, 67, 68, 74, 75, 79, 80, 91, 99, 102, 108, 112, 113, 118, 124, 125, 138, 141, 142, 146, 151, 162, 164, 166, 177, 178, 180, 181, 182, 188)

Response: The problem that the proposed transmission line addresses is related to TVA's bulk power transmission system. Solving this problem by upgrading lower voltage lines is not reasonable technical solution.

- 26 Why is TVA not running the new transmission line parallel to existing lines? Particularly those that closely approximate Corridor C of Alternative 1.

N=9 (2, 23, 80, 138, 146, 162, 164, 181, 188)

Response: The Cumberland-Montgomery Alternative Corridor C does parallel at least one existing 161-kV transmission line for a short distance. Corridor C (EIS Section 2.2.2.1.3) was evaluated based on a comprehensive set of criteria (EIS Sections 2.4 and 2.5). Based on this evaluation, Corridors B and D were determined to be preferable and Corridor C was eliminated from further consideration.

- 27 ROW Co-Location – In the process of selecting alignments within corridors for the two alternatives, we assume that co-location of the transmission line ROW with other compatible utilities will be considered since the loss of “greenfield” habitat or fragmentation of such habitat could be minimized or avoided. However, EPA is aware that co-location is not always advisable even along other transmission lines due to minimum distance requirements between lines, lightning effects and the need for redundancy to prevent major outages at common termini. It is unclear, however, if highways would be considered a compatible utility for co-location with a 500-kV line due to potential electromagnetic force (EMF) effects or other concerns. The FEIS should discuss. We note that the potential for co-location may exist in some areas since Corridor A of Alternative 1 follows TN 13 (pg. 56) and Corridor D passes over I-24 (pg. 57). Would the TVA buffer distances (300-ft for occupied buildings, 1,200-ft for schools) apply for ROWs parallel to highways relative to potential EMF exposure to highway travelers? With what other compatible utilities could the proposed transmission line possibly be co-located?

N=1 (195-EPA)

Response: Co-location of the proposed transmission line on long stretches of highway right-of-way (ROW) would not be feasible for several reasons:

- Except for interstate highways, most highways in the project area have narrow ROWs. Residential and commercial development is also frequently concentrated along highways, and this factor, as well as the narrow highway ROWs, would likely increase ROW acquisition costs for the transmission line and increase the number of required house and business relocations.
- The presence of the transmission line adjacent to the highway would also greatly constrain future development along the highway.
- Few of the potentially suitable highways in the various corridors are straight for long distances and following them would increase both the length of the transmission line and the number of expensive angle structures.
- Paralleling highways for long stretches would increase the potential for aesthetic impacts.
- The presence of numerous transmission line structures close to a highway could result in hazards to both motorists and to the structures.
- EMF levels would be the same on an adjacent roadway as at any other area the same distance from the transmission line. The exposure of motorists to EMF would increase as the length of line close to and paralleling the highway increases, but would still be considered insignificant.

Other than other transmission lines, most utilities are not suited for co-location for a 500-kV transmission line. For example, natural gas and petroleum pipelines can experience induced currents in the piping, resulting in increased corrosion.

- 28 TVA should consider a new alternative involving upgrading existing lines from Cumberland Fossil Plant east to Cheatham Dam and then following the existing 500-kV line running between the Davidson and Montgomery substations.

N=2 (102, 178)

Response: TVA does not have a direct transmission line connection between Cumberland Fossil Plant and Cheatham Dam. See the response to Comment 17 for more on upgrading existing lines and regarding the issue of following an existing 500-kV transmission line.

- 29 Why cannot an underground line be built? This would be safer with less health risk, minimize visual impact, be tornado-proof, and destroy less woodland.

N=13 (1, 23, 30, 31, 45, 62, 67, 78, 79, 104, 125, 177, 180)

Response: Placing a 500-kV transmission line underground is very expensive and requires substantial excavation with associated environmental impacts. Line maintenance could require excavation. Burying lines also requires ancillary facilities such as coolant pumping stations. Underground lines of this voltage in the United States are very rare and are generally limited to relatively short lengths and often are providing service to areas where overheads lines are not feasible, such as to islands. Lower voltage lines, up to 345-kV, have been installed; but these require frequent maintenance because of the effects of heat, water, bacteria and other environmental factors on the insulation,

- 30 The greatest electrical demand in Middle Tennessee is in the Nashville area and to the south. If reliability and catastrophic loss are truly a consideration, why do you propose to build a circuit that would result in an overall greater length of transmission line (to Clarksville and then on existing lines to Nashville).

N=1 (105)

Response: Of the two action alternatives, the preferred Cumberland-Montgomery Alternative has the shortest length of new transmission line. The addition of another line from Clarksville to Nashville would do little to resolve the problems that the proposed line addresses. See the Purpose and Need section of Chapter 1 and the response to Comment 1.

- 31 The EIS should include more information on the process of elimination of the alternatives considered but eliminated from further consideration.

N=2 (92, 182)

Response: The pertinent facts leading to the elimination of other alternatives are described in Section 2.3 of the EIS.

- 32 Chapter 1 of the DEIS states “the loss of two or more lines could result in the loss of service over a wide area.” Selection of the Cumberland-Montgomery alternative would not address this because it would result in an extension of the existing line from Nashville to the Montgomery substation.

N=1 (183)

Response: Chapter 2 of the EIS discusses the alternative solutions available to address this problem.

- 33 Eastern Montgomery County has had several tornadoes in recent years. Given this situation, how would the new line alleviate weather-related vulnerability? About 3 years ago, a storm knocked down a 161-kV line, which set pavement on fire.

N=9 (22, 29, 45, 60, 76, 88, 117, 142, 185)

Response: Because the proposed action would provide an additional 500-kV transmission line in Middle Tennessee, it would reduce the weather-related vulnerability of the 500-kV system. This is often an advantage of building a new transmission line instead of co-locating a line.

34 The No Action Alternative is proposed and dismissed cursorily in the DEIS, although there would probably be wide public support for it and it would entail the greatest environmental and esthetic benefits.

N=1 (102)

Response: The No Action Alternative would not address the power supply reliability problem driving the purpose and need for the proposed action. As discussed in Section 4.14., this alternative would have potentially unacceptable socioeconomic impacts.

35 We note that load management/conservation was considered as an alternate to construction a new transmission line. However, it was determined that, through conservation, the maximum peak load reduction with a two-year period was about 187 MW, which was much less than the projected need for 4,000 MW. Nevertheless, we continue to support TVA's promotion of power conservation from an environmental perspective as well as to ensure an additional measure of power reliability. It would be helpful if the FEIS summarizes what TVA is doing regarding power conservation through demand-side programs and incentives.

N=1 (195-EPA)

Response: Comment noted. A summary of TVA's demand-side programs and incentives is included as Appendix H in the FEIS.

36 What criteria are used to decide the route of the transmission line?

N=2 (18, 45)

Response: The criteria used to identify the alternative routes for a transmission line are described in the introduction of Section 2.2 and summarized in Section 2.4. In addition to these factors, in put from the public, government agencies, and others is also considered. See the response to Comment 24.

37 Tower Height – Page 8 indicates that the height of transmission towers is normally between 85-125 ft. From a scenic impact perspective, this is a wide range in height. The FEIS should provide criteria for tower height.

N=1 (195-EPA)

Response: The criteria for determining tower height are based on a combination of several factors. The most important factor is the need to maintain adequate ground clearance according to National Electric Safety Code (NESC) standards. The NESC specifies minimum ground clearances that depend on the terrain and voltage of the transmission line. Clearances vary depending on the land use under the line, such as navigable water, railroads, highways, or farmland. The NESC also specifies the minimum clearances for

crossing over communication circuits, distribution lines, and other transmission lines. Taller transmission towers are often necessary to meet these clearance requirements.

- 38 Could a new substation be built that would eliminate the need for a new transmission line in Montgomery County:

N=1 (166)

Response: No. This would not address the need for the project. Moreover, generated electricity would still have to be transmitted to a new substation and a new transmission line would still have to be built.

- 39 Why does the line have to go through the city limits of Clarksville? Please consider a longer route such as Alt. 1 Corridor A or a modification of Alt. 1 Corridor B that stays outside the city and uses existing easements and/or less populated areas.

N=9 (3, 55, 68, 46, 107, 111, 130, 154, 157)

Response: The amount of development, such as residential and commercial buildings, is a factor in identifying a line location and is considered along with many other factors. Cumberland-Montgomery Corridor B has been identified as one of TVA's preferred corridors.

- 40 Why is the line not being run through Fort Campbell where it would be less expensive and affect fewer property owners?

N=1 (56)

Response: Some alternative alignments of the Cumberland-Montgomery Corridor D route do cross small portions of the Fort Campbell reservation. The routing options on Fort Campbell are limited by the need to maintain safe operation of the line without interfering with the military mission.

- 41 With a 300 foot buffer on each side of the 175 foot right-of-way, there would be a 775 foot wide corridor where no residential buildings could be located. Would existing homes in the 300 foot buffer be demolished or moved?

N=10 (2, 101, 117, 134, 135, 143, 146, 147, 155, 177)

Response: During the planning of a new transmission line, TVA attempts to site the line at least 300 feet from occupied buildings. Where the occupied building is a school, TVA attempts to maintain a 1200-foot buffer. TVA would only purchase a right-of-way 175 feet wide and only future activities within that right-of-way would be restricted. TVA has no control over future development outside of its purchased right-of-way.

- 42 Will the transmission line go over the top of houses or will any towers be placed in yards of existing homes?

N=1 (18)

Response: While planning the proposed transmission line, TVA has made every effort to avoid conflicts with existing homes and businesses. The line would not pass over the top of

houses, but it may be necessary to purchase and relocate some structures that are within the 175-foot wide right-of-way. Depending on the configuration of homeowners' land, towers could potentially be placed in the yards of existing houses provided the yard is large enough to maintain an adequate distance between the house and the transmission line.

43 How much additional property will be needed at the Montgomery substation?

N=1 (19)

Response: No additional land would be purchased for substation facilities.

44 Are transformer oils containing PCBs or dioxin, or the transformer oil askeral going to be used with the new transmission line?

N=1 (134)

Response: No.

45 Build the transmission line in tunnels or pipelines along existing highways, railroads, and under the Cumberland River.

N=1 (141)

Response: These approaches to line routing and construction are neither technically nor economically viable. See also the response to Comment 29.

46 Since many people and much property in Montgomery County would be affected by any route, why not use the shortest route?

N=1 (69)

Response: As discussed in EIS Chapter 2, line length is one of many important factors considered in the route selection process.

47 Why does the transmission line not follow the highway directly to Nashville instead of going over and through houses?

N=1 (117)

Response: See the response to Comment 27.

48 How will TVA prioritize the various line segments and combinations of line segments in terms of preferability? As certain corridors have been ruled out, have certain segment combinations been ruled out as well?

N=1 (90)

Response: The criteria used in evaluating line segments and identifying the preferred line segments are summarized in Section 2.4 and are based on the information in Chapter 4, as well as engineering and cost factors. The rationale behind TVA's identification of the preferred alternative, preferred corridors, and preferred line routes is explained in Sections 2.4 and 2.5. See also the response to Comment 24.

49 Based on information presented in the DEIS, Alt. 1 (Cumberland-Montgomery) Corridor D is clearly environmentally preferable over Alt. 1 Corridor B.

N=3 (105, 141, 183)

Response: Comment noted. See Tables 2-4 and 2-5.

50 We are opposed to Alternative 1 (Cumberland-Montgomery), which seems to have the most impact on the environment.

N=1 (84)

Response: Comment noted. TVA's preference for Alternative 1 is explained in Section 2.4.

51 I am opposed to Cumberland-Montgomery Corridor B.

N=23 (8, 13, 24, 51, 54, 76, 93, 94, 95, 96, 98, 99, 103, 114, 116, 123, 130, 136, 137, 140, 144, 148, 157)

Response: Comment noted.

52 I urge adoption of the No Action Alternative.

N=4 (23, 44, 70, 168)

Response: Adoption of the No Action Alternative would avoid many of the environmental impacts that would result from the action alternatives. It would not, however, allow TVA to continue to provide an adequate, reliable power supply to a large portion of Middle Tennessee.

Right-of-Way Acquisition

53 How will landowners be compensated? How are landowners to get a fair appraisal?

N=26 (7, 9, 18, 19, 22, 30, 32, 45, 66, 74, 77, 90, 92, 117, 134, 135, 138, 143, 146, 147, 163, 166, 169, 179, 189, 190)

Response: Appraisals are made by State Certified General Real Estate Appraisers for each tract of land from which transmission line easements are to be acquired. The appraisals are based on recent sales of similar properties located in the immediate and surrounding area. The appraisal process includes an analysis of the before and after value of the property as a whole. The property owner is compensated for the acquisition of the easement plus any reduction in the value of the remaining property.

54 How do the prices TVA pays for residential property compare with assessed values for tax purposes?

N=1 (7)

Response: The compensation paid for residential or any other type of property is based on fair market value appraisals. This is determined by researching the local real estate market for sales of property similar to the property being appraised. The assessed values

for property taxes are not used in making the valuations due to the fact that they may not be representative of fair market value.

55 What is the appeal process for a landowner who is dissatisfied with the offer for his property?

N=1 (7)

Response: If a property owner considers the offer made for a right-of-way acquisition to be below market value and can provide support or justification for additional compensation, the data would be reviewed by TVA staff and the offer adjusted accordingly.

56 Does TVA have the right to build the transmission line if landowners do not agree to it? Can TVA condemn land to acquire it for the transmission line?

N=14 (16, 22, 42, 45, 60, 61, 67, 77, 92, 122, 146, 166, 177, 179)

Response: Yes. TVA has the power of eminent domain, which means that TVA can acquire privately owned land rights. TVA makes every reasonable effort to acquire land rights needed for their projects voluntarily and without condemnation. However, when an agreement cannot be reached between the property owner and TVA, the land rights are acquired through the condemnation process.

57 What right of appeal does a landowner have if their property is condemned? In what court is the condemnation case tried? Is it a jury trial?

N=2 (143, 163)

Response: The property owner has a right to be paid just compensation for any acquisition by TVA. When acquiring property rights through condemnation, TVA and the property owner have the right to present their proof in the local Federal District Court. The case is tried either before a federal commission or a jury at the judge's discretion.

58 Will property owners be compensated for access road right-of-ways?

N=1 (87)

Response: When permanent access road easements are acquired, the property owner is paid just compensation based on a fair market value appraisal. If temporary access roads are needed for the duration of the construction period, the property owner is typically contacted by the construction foreman and an agreement for the compensation is negotiated.

59 Will my property ever be returned to me or are the lines permanent?

N=1 (56)

Response: Transmission line easements are permanent easements. However, the property owner continues to "own" the property (holds fee title) over which the easement crosses. The owner can continue to use the property for purposes that would not interfere with TVA's use of the property under the terms of the easement.

Transmission Line Construction

- 60 ROW Preparation – The DEIS (pg. S-2) states that “...most trees and shrubs would be initially removed from the entire width of the ROW.” EPA suggests that such removal be limited to the centerline and access road alignments, or to these areas and the minimum width of the ROW that will be maintained mechanically to avoid tree stump interference with maintenance machinery such as tractor-mounted mowers. Remaining stumps and roots would help control soil erosion until grasses and low-growing vegetation are seeded/planted or successional return. This would be particularly important for ROWs in hilly terrain where erosion would be an issue. Allowances for greater clearing might be considered to accommodate landowners if their use for their easement ROW requires a more cleared area and such clearing is requested. In areas where grubbing does occur, reseeded with appropriate ROW grasses should be initiated as soon as possible to minimize soil erosion.

N=1 (195-EPA)

Response: Electrical and safety considerations for both line construction and operation necessitate the removal of most woody vegetation from the entire width of the right-of-way. In steep or otherwise erosion-prone areas, stumps and root systems may be maintained as feasible. In any event, TVA recognizes the problem of erosion and takes necessary measures to minimize erosion during clearing and construction and to stabilize the right-of-way after the line is completed.

- 61 How much damage will occur when taking soil samples and how long will it be before this damage is repaired?

N=1 (19)

Response: Shallow excavations of one foot or less are made for archaeological testing during pre-construction surveys. These holes are refilled immediately. No other soil sampling is proposed.

- 62 Page 7 states that “[t]rees outside of the right-of-way which are tall enough to pass within 10 feet of a conductor if they fell towards the line would also be removed.” This appears inconsistent with page 11 which states that “[a]ny trees located off the ROW which are tall enough to pass within 6 feet of a conductor or structure (if they were to fall toward the line) are designated as “danger trees” and would be removed.” We assume that 10 feet is the critical distance used by TVA. The FEIS should clarify.

N=1 (195-EPA)

Response: The correct distance is 10 feet; this error has been corrected in the FEIS.

- 63 Breadth of ROW – Page S-2 indicates that the ROW for the proposed 500-kV transmission line would be 175 feet wide. In addition, page 7 also states that “[t]rees outside the right-of-way which are tall enough to pass within 10 feet of a conductor if they fell towards the line would also be removed.” The FEIS should therefore more clearly indicate the maximum width of the ROW in terms of potential tree removal.

N=1 (195-EPA)

Response: The right-of-way would be 175 feet wide. There is no maximum distance for danger tree removal, as any trees qualifying as danger trees would be removed regardless of their distance from the right-of-way.

64 Will trees outside the right-of-way be cut? If so, how many and what control will landowners have over this? Will landowners be compensated for this? What are the environmental effects of this?

N=4 (1, 50, 166, 177)

Response: See the response to Comment 63. The right to cut danger trees is conveyed to TVA as part of the easement document and the price paid by TVA for the easement includes compensation for this right. The environmental effects would be somewhat similar to those described in the EIS for right-of-way clearing. Because the number of danger trees would be much smaller than the number of trees removed from the right-of-way, the impacts associated with their removal would be less than those of right-of-way clearing.

65 Will trees on property a few hundred feet from a proposed line have to be cut?

N=1 (68)

Response: See the response to Comment 63. In practice, it is rare for a danger tree to be more than 100 feet from the edge of the right-of-way.

Right-of-Way Maintenance

66 The EIS contains no discussion of disregard for landowners by TVA powerline maintenance crews, who cut locks, leave cut trees in fields, spray trees and leave them to fall in field, and illegally poison/cut trees outside the right-of-way.

N=1 (81)

Response: TVA must have access to transmission line rights-of-way and structures for routine inspection and for emergency repair. If the property owners wish, TVA can place a TVA lock, in addition to the owner's lock, on gates through which access is needed.

TVA is sensitive to property owner's concerns when transmission line ROWs are maintained. TVA's standard practice is to remove cut trees and herbicide-treated trees on improved property and areas regularly maintained by landowners such lawns, pastures, and cropland. In wooded and other unimproved areas, cut trees and brush are windrowed along the edges of the right-of-way and trees treated with herbicide are left standing. TVA has the right to chemically treat or cut danger trees located off the right-of-way; see the response to Comments 62 – 65. While TVA and its contractors try to avoid damaging additional vegetation off of the ROW, property owners are compensated if this occurs.

67 What sort of chemicals will be used to maintain the lines, and what are the effects of these chemicals on people, wildlife, fish, crops, and groundwater? What assurances are there that herbicides will be confined to the right-of-way?

N=15 (7, 11, 14, 22, 44, 50, 68, 69, 87, 106, 117, 125, 145, 177, 184)

Response: Additional information on the herbicides presently used to maintain TVA rights-of-way has been added to Section 2.1.2 and Appendix E contains a discussion of the effects of herbicides. All herbicides used on TVA rights-of-way are applied by licensed commercial applicators. Measures taken to confine herbicides to the right-of-way include use of experienced applicators, proper equipment maintenance, pre-application inspections to gain familiarity with the right-of-way, and consideration of weather conditions. Landowners may request compensation for damage to vegetation off the right-of-way resulting from TVA herbicide applications.

- 68 Herbicides – The DEIS (pg. S-2) states that “[t]he two principal management techniques would be mechanical mowing using tractor-mounted rotary mowers, and herbicide application.” The FEIS should indicate which approach (mechanical vs. herbicides) is the method of choice or has the greatest likelihood of use. In addition, we suggest that aerial spraying be avoided, if not eliminated, due to the potential for herbicides being sprayed outside the ROW – or drifting outside the ROW – onto humans, non-target vegetation, wildlife and water bodies. If mower access is an issue in rugged terrain, backpack sprayers should be strongly considered in lieu of aerial spraying.

N=1 (195-EPA)

Response: Since the early 1990s, TVA has used mechanical mowing for about 70% of its right-of-way maintenance and herbicide application for about 30%. It is unlikely that the amount of herbicide application will be reduced in the near future. As new herbicide formulations and application equipment have been developed, the inadvertent drift of herbicides has been greatly reduced. For remote and rugged areas, backpack herbicide application is neither safe nor cost-effective, and aerial application remains the most effective and efficient method of vegetation management.

Groundwater and Geology

- 69 Is TVA exempt from laws affecting groundwater in Montgomery County and affecting ecosystems?

N=1 (117)

Response: Federal agency exemptions or “immunity” from state or local laws has been waived for many environmental requirements. For example, TVA generally is not exempt from Federal laws affecting ecosystems such as the Endangered Species Act and the Clean Water Act. Whether TVA is exempt from local groundwater laws, including any adopted by Montgomery County, would depend on the specific law and its basis.

- 70 You state that construction wastes would be disposed of in sinkholes. What would then keep heavy metals and other toxic chemicals out of the groundwater and out of creeks, where it would affect our farm?

N=1 (127)

Response: No construction wastes would be disposed of in sinkholes or along the right-of-way. TVA complies with all regulations concerning solid waste disposal and all disposals will be in approved, licensed landfills.

- 71 Residents along portions of the corridors depend on well water. The potential effects on this water supply are not adequately described.

N=3 (57, 134, 156)

Response: Additional information on potential impacts to groundwater has been added to Section 4.1.

- 72 The environmental impact statement does not adequately address potential problems resulting from the numerous sink holes in Montgomery County. Both groundwater quality problems and structural stability problems.

N=8 (10, 30, 89, 135, 173, 182, 184, 185)

Response: Depending on the route selected, transmission structures would be located in or on the edge of up to 11 sinkholes. Additional information on potential impacts to groundwater has been added to Section 4.1. [need response from TPS on structural stability/engineering aspects]

Surface Water

- 73 The statement in DEIS Section 4.2.1 that precautions would be taken to avoid addition of sediment or siltation to the 303(d) listed streams is not strong enough. There should be no addition of sediment or siltation to any stream.

N=1 (133)

Response: One of the basic regulatory requirements for 303(d) listed streams is that no additional amount of the pollutant that is the cause for the listing can be added. This is the commitment made in DEIS Section 4.2.1 that states, "Precautions would be included... to avoid the addition of sediment or siltation to the 303(d) listed streams." TVA also takes precautions to limit or avoid impacts to other streams including use of Best Management Practices.

- 74 What does the statement about streams "not supporting use classifications because of pollution loadings exceeding water quality standards" [in the summary, page S-5] mean to TVA's proposed project?

N=1 (182)

Response: In accordance with the Clean Water Act, the state water pollution control agency (Tennessee Department of Environment and Conservation) classifies each stream in the state according to its beneficial uses. For each beneficial use there are water quality criteria (or standards) that must be met for the stream to meet its designated use. When these stream conditions are not met, water quality in the stream is not good enough, the stream is identified as being impaired, and it is placed on the state 303 (d) list for corrective actions. The corrective actions are designed to improve the water quality and return the stream to its full beneficial use.

Vegetation, Wildlife, and Endangered and Threatened Species

75 The transmission line would destroy caves, wetlands, forests, and wildlife. Including pileated woodpeckers, deer, turkeys...How will TVA mitigate the forest fragmentation?

N=14 (38, 45, 50, 57, 76, 86, 87, 105, 112, 124, 128, 139, 155, 187)

Response: The occurrence of caves, wetlands, forests, and wildlife within the study areas and along the proposed transmission line routes is described in FEIS Sections 3.3, 3.4, 3.6, and 3.7. The proposed transmission line routes were designed to minimize impacts to these resources, and the anticipated impacts are described in FEIS Sections 4.3, 4.4, 4.6, and 4.7. As discussed in FEIS Sections 4.3 and 4.4, construction of the proposed transmission line would not result in significant large-scale forest fragmentation in the region and TVA has not identified the need for mitigating the fragmentation that would occur.

76 About 40 years ago TVA built a transmission line on Gus Northfleet's land near Cumberland City. Within a few months all the fish floated to the top of the ponds and within a couple of years much of the wildlife had deformities or was eliminated.

N=1 (184)

Response: We are not aware of the incident you describe. The potential impacts of transmission line construction to fish and wildlife are described in Sections 4.4, 4.5, and 4.6 of the FEIS. Such an incident would be extremely unlikely to occur as a result of the construction or operation of the proposed transmission line.

77 What is the possibility of physical harm to wildlife?

N=1 (21)

Response: Potential impacts to wildlife are described in FEIS Section 4.4. Larger, more mobile species of wildlife typically move out of the construction zone and their long-term survival would depend on the carrying capacity of the nearby areas they occupy. Construction activities could result in direct mortality of smaller, less mobile species, such as salamanders or turtles. TVA has attempted to minimize impacts to such species by avoiding, to the extent practicable, areas such as wetlands where large numbers of wildlife may concentrate. Some mortality of wildlife, however, would inevitably result from the construction and operation of the proposed transmission line.

78 The DEIS does not assess the effects of a new transmission line on the spread of exotic and invasive species.

N=1 (102)

Response: See FEIS Section 4.3 for a discussion of exotic and invasive plants.

79 The Division of Natural Heritage would also like to stress that care be taken to prevent revegetation of the area with plants listed by the Tennessee Exotic Pest Plant Council as harmful exotic plants. We advocate planting and restoring the affected area with native trees, shrubs, and warm season grasses, preferably those

found onsite prior to construction activities. If immediate erosion control is needed on site, we recommend supplementing the planting with annual rye, which establishes quickly, and can help reduce invasion by exotics plants.

N=1 (193-TDEC)

Response: Comment noted. As stated in FEIS Section 2.2.1 and elsewhere, no harmful exotic plants, including those listed by the Tennessee Exotic Pest Plant Council, would be planted during revegetation activities. TVA would also take measures to minimize the spread of invasive species during construction and maintenance activities. Unless the property owner wants something else, it is TVA practice to re-vegetate ROWs with native vegetation.

80 An old buffalo run in the Hickory Point community would be impacted by Alt. 1 Corridor B.

N=1 (113)

Response: Comment noted. No evidence of this was found during archival research or field studies of the Alternative 1 Corridor B transmission line route.

81 The DEIS does not give sufficient information about potential impacts to vegetation and animal habitats.

N=1 (135)

Response: Comment noted. The FEIS contains more detailed analyses of these topics.

82 The great blue heron occurs for a few days twice a year on a farm pond on my property in Cunningham.

N=1 (182)

Response: Comment noted. Great blue herons occur regularly in parts of the study areas. No adverse impacts to this species are anticipated.

83 The McCauley Hill Farm contains a 110-acre "Big Woods" with over 500,000 board feet of hardwood timber and trees over 300 years old. Also present are a historic buffalo trace, many species of songbirds, some of which are endangered, and wild turkeys.

N=1 (183)

Response: Comment noted. The McCauley Hill Farm is at least half a mile from the proposed Corridor B route and would not be affected by any of the routes under consideration.

84 Forestry data in Tables 2-1, 3-4 and 3-5 appear inconsistent (e.g., the total forest acreage for D is 17,825 ac in Table 2-1, while Table 3-4 lists the total "forested upland" as 30,335 ac or 31,723 ac if "woody wetlands" are added, and Table 3-5 lists the total acreage for forest patches as 28.276 ac). The FEIS should discuss these differences. (Note – Even if these differences are due simply to different data

sources, some differences are significant. TVA should perhaps determine some common denominator or substantiate selection of only one data source).

N=1 (195-EPA)

Response: The discrepancy in the data in the tables has been resolved in the FEIS.

85 Edge Effect – The DEIS indicates (pg. S-11) that forests that are permanently converted to successional grassland/shrub habitats for transmission line ROWs would be detrimental to forest-dwelling animals but benefit species requiring open grasslands/shrubs. While we do not disagree, it should be noted that given the extent of development in many parts of the country, many edge effect areas are being created but few, if any, forests are being created – particularly large patches of natural forests with unfragmented forest-interior habitats.

N=1 (195-EPA)

Response: Comment noted. FEIS Section 3-3 discusses regional trends in forest cover and Sections 4-3 and 4-4 discuss the anticipated impacts from the loss and fragmentation of forests.

86 My family has worked to create a 400-acre wildlife sanctuary that includes forest, woods, and a cypress pond. The proposed transmission line in Corridor B would destroy this.

N=3 (184, 185, 186)

Response: The property in question is outside of the proposed ROW for the Alternative 1 Corridor B transmission line route.

87 We found the DEIS comprehensive and complete in scope. Tables 3-8, 3-9, and 3-10 document the Federal and State listed plant and animal species found in the project area, and accurately represent the data which we currently have in our Biological Conservation Database. In the interest of protecting the natural biological diversity of Tennessee, we encourage TVA to choose a transmission line corridor which will minimize impacts to populations of Federal and State listed plants and animals. We would like to stress that some of the state listed species documented in the DEIS are less common in Tennessee than some of the federal listed species. Our review indicates that 21 plant species documented in Table 3-8, four terrestrial species (Table 3-9), and four aquatic species (Table 3-10) carry a S1 rank, meaning that they are extremely rare and critically imperiled in the state with five or fewer known occurrences. Accordingly, we ask that TVA minimize potential impacts to these rare species by avoiding populations during transmission line construction and, where this is not feasible, offer appropriate mitigation.

N=1 (193-TDEC)

Response: Comment noted. The minimization of impacts to populations of endangered and threatened species was one of several considerations during the planning of the proposed transmission line routes. Measures to reduce impacts to listed species during transmission line construction and operation are described in Section 2.1 and Appendices

B-F of the FEIS; these measures would mostly benefit aquatic species. The anticipated impacts on endangered and threatened species are described in Section 4.6 of the FEIS. TVA has not identified the need for specific mitigation measures necessary to reduce impacts to listed species. [make sure this is true in final version]

- 88 Regarding endangered or threatened species, we recommend that the specific transmission line corridors be surveyed to determine the presence or absence of species known to occur in the vicinity. The results should be utilized in the decision process to select an alternative that avoids impacts to any Federally listed threatened, endangered, or otherwise imperiled species.

N=1 (192-USDI)

Response: Comment noted. The results of detailed surveys of the specific transmission line routes are incorporated into the FEIS. Portions of the proposed transmission line routes were changed to reduce impacts to listed species found during these surveys.

- 89 According to Table 2-1, the preferred Alt. 1 Corridor B would affect twice as many endangered and threatened species as the Cumberland-Davidson alternative.

N=1 (101)

Response: The information on endangered and threatened species in Table 2-1 of the DEIS is the number of different populations previously known to be present, and not the number of potentially affected species. The FEIS contains additional information on endangered and threatened species.

Wetlands

- 90 The DEIS acknowledges that the NWI data are dated (over 15 years old) and therefore may not be correct. Page 46 states that “[d]ue to the age of the NWI data, and possible changes in land use since the NWI data was completed, current wetland locations, extents, and types may differ from the NWI data.” Page 73 further states that “[t]his analysis of impacts is based on NWI data, and may not be accurate because of the limitations of the NWI wetland identification methodology and possible changes in land use since the NWI was completed.” Although limited ground-truthing from several open areas from public roadways was conducted (pg. 46), more specific field enumeration of the wetland acreage and verification of the kinds of wetlands involved and their function is needed for corridor alignments in the FEIS (at least for TVA’s final preferred alignment).

N=1 (195-EPA)

Response: TVA has conducted field surveys and delineated wetlands in the proposed transmission line route right-of-ways, along access roads, and on construction laydown areas. The results of these surveys are incorporated into Sections 3.7 and 4.7 of the FEIS.

- 91 The DEIS adequately describes fish and wildlife resources in the project area. We recommend, however, that more detailed information be provided regarding the location and size of wetlands that could intersect the various transmission line alignments and associated short term or long term infrastructure and support

facilities and activities, such as access routes, construction material storage pads, and others. Offsite or other mitigation may be necessary to offset impacts to wetland vegetation, and should be described in the document as a project feature.

N=1 (192-USDI)

Response: See the above response to Comment 90. Mitigation of impacts to wetlands is discussed in Sections 2.6 and 4.7 of the FEIS.

92 A Department of Army permit pursuant to Section 404 of the Clean Water Act would be required for the deposit of fill material into any jurisdictional wetlands of the U.S. associated with the construction of the transmission structure foundations. Without specific location known, a determination if any of the specific wetland locations are jurisdictional cannot be made at this time.

N=1 (196-COE).

Response: Comment noted. See the above response to Comment 90.

93 It is ironic that river bottom land that our family drained to make arable is now threatened by the proposed transmission line because it is no longer a wetland.

N=1 (38)

Comment noted. TVA is required by Section 404 of the Clean Water Act and other statutes and regulations to minimize impacts to wetlands, and thus avoidance of wetlands is one of the considerations during the planning of a transmission line. The construction and operation of a transmission line typically has only minor impacts on farming operations.

Flooding and Floodplains

94 Flash floods frequently occur on a large creek along Roberts Road in Alt. 1 Corridor B. Will you do something to prevent them if Corridor B is selected?

N=1 (182)

Response: TVA is considering two alternative transmission line route alignments in the vicinity of Roberts Road. These alignments would cross Hurricane Creek and/or Sulphur Springs Branch. Except along the lowermost stretch of Hurricane Creek, almost all structures would be in upland areas. The construction of the transmission line in this area is not expected to result in any increase or decrease in flood hazard because of the minimal changes in flow carrying capacity of the streams being crossed. TVA will use best management practices during construction activities and will promptly revegetated disturbed areas to minimize sediment runoff. No other activities to prevent flooding are proposed or necessary as a result of construction of the transmission line.

Managed Areas

95 Our review further indicates that both alternative study areas and all corridors contain areas managed for natural resource conservation such as wildlife management areas, state natural areas and wildlife refuges. We request that TVA avoid, where possible, impacts (direct or by viewshed) to managed areas and

ecologically sensitive sites during transmission line routing. Where this is not feasible, we ask that TVA work with land managers to mitigate potential impacts.

N=1 (193-TDEC)

Response: Comment noted. Neither of the proposed Alternative 1 transmission line routes would directly impact wildlife management areas, state natural areas, or wildlife refuges, and indirect impacts to such areas would be minimal. As described in FEIS Section 4.9, no significant impacts to other designated ecologically sensitive sites are anticipated.

96 Alt. 1 Corridor B would affect a state green belt.

N=1 (34)

Response: The Alternative 1 Corridor B transmission line route has been designed to avoid impacting any state green belts.

Land Use and Prime Farmland

97 The transmission line (Alt. 1 Corridor B) will cut our neighborhood in half and disrupt our lives.

N=3 (74, 80, 91)

Response: TVA has given this type of issue full consideration during the route planning and identification process and has attempted to minimize neighborhood disruptions.

98 A transmission line in Alt. 1 Corridor B would destroy an area of expensive homes and stable families in Clarksville's finest neighborhoods.

N=23 (27, 47, 60, 70, 76, 83, 93, 96, 101, 103, 107, 117, 119, 120, 123, 126, 130, 132, 140, 146, 154, 155, 174)

Response: See the response to Comment 97.

99 In effort to minimize costs, TVA is taking the shortest routes directly through many neighborhoods. TVA should better protect neighborhoods, even if it increases the cost of the line.

N=3 (80, 91, 165)

Response: Comment noted. See the response to Comment 97.

100 Why are you routing the line through populous areas, rather than forested, unsettled areas? You will displace homeowners into forested, unsettled areas.

N=1 (42)

Response: Comment noted. See the response to Comment 97.

101 ROW Land Use – As we understand it, TVA purchases transmission line ROW easements from landowners as opposed to buying the ROW in fee simple.

Accordingly, after construction of the transmission line, the landowner can continue to use the ROW land "...for many purposes that do not interfere with maintenance and operation of the line" (pg. S-2). The FEIS should identify some of these allowed land uses that are typically practiced by landowners.

N=1 (195-EPA)

Response: As described in Section 4.11 of the FEIS, TVA transmission line rights-of-way are available for a number of uses including, but not limited to, most agricultural activities; driveways; parking lots; lawns; golf courses; and any other use that does not involve a permanent structure or constitute a hazard to safe line operation.

102 Will I be able to use my property under the power line?

N=1 (56)

Response: See the response to Comment 101.

103 If the new transmission line is to be in Montgomery County, TVA should choose Alt. 1 Corridor D. It is shorter, contains many tobacco fields, and could use land already owned by the government.

N=1 (141)

Response: Comment noted.

104 Selection of Alt. 1 Corridor B would disrupt one of the least developed parts of Montgomery County in the Seven Mile Ferry/Martha's Chapel Road area.

N=1 (141)

Response: Comment noted.

105 The Department of Economic and Community Development has concerns regarding line routing in the Clarksville area. I have enclosed maps showing the Clarksville/Montgomery County Corporate Business Park – Phase II and the Teeter Site, both in northeast Clarksville. The former is a new 1000+ acre expansion of the area's existing industrial park and constitutes possibly Tennessee's finest interstate frontage large tract industrial site. The latter is a private tract with primarily a single willing owner holding about 1000 acres. Its ownership situation and proximity to transportation and utilities make it another very significant large tract opportunity for industrial recruitment in Tennessee.

A properly placed 500-kV line with 175 foot right-of-way can be a significant asset to the area. But, if it is poorly placed due to inadequate planning, it could result in severe limitations to Clarksville's future ability to offer these two sites as large unencumbered tracts. Tennessee has precious few large tracts with such transportation access and major utilities located outside of what may become ozone nonattainment areas with yet major, growing, highly livable communities. I urge TVA's close coordination with Clarksville and Montgomery County on this project, specifically with Michael J. Evans, Clarksville/Montgomery County Economic Development Council.

N=1 (194-TDECD)

Response: TVA staff has discussed line location alternatives with Mr. Evans and members of the Clarksville/Montgomery County Economic Development Council. Their concerns have been considered during the transmission line routing process.

106 The proposed transmission line would destroy valuable farmland and farmer's way of life. Some of these areas have been farmed by the same family for over a century.

N=16 (38, 50, 63, 94, 100, 101, 105, 113, 114, 115, 116, 123, 129, 139, 142, 183)

Response: Most farming activities could continue within the right-of-way of the proposed transmission line. The construction of buildings within the right-of-way would be prohibited.

107 A Corps of Engineers (CE) real estate easement or federal land use agreement may be required if the proposed activity goes through lands leased, managed, and/or owned by the CE. From the general maps provided, both ALTs 1 and 2 would cross government lands and require some level of land use instrument.

N=1 (196-COE).

Response: Comment noted.

Visual Resources

108 You propose to run the powerline through a neighborhood where we paid extra to have underground utilities. This would greatly disrupt our area.

N=6 (82, 86, 97, 98, 126, 174)

Response: See the response to Comment 97.

109 The visual impact discussion in the DEIS does not address Cumberland-Montgomery Corridor B. The visual impact in Montgomery County south of the Cumberland River would be significant.

N=1 (135)

Response: The visual impacts of the transmission line in this area are described in Section 4.12.1.2 of the FEIS.

Cultural Resources

110 The transmission line would affect historic sites, Indian mounds, archaeological sites, and the Trail of Tears.

N=4 (30, 34, 115, 116)

Response: The results of detailed cultural resource surveys of the proposed Alternative 1 Cumberland-Montgomery Corridor B and Corridor D routes are described in Section 3.13. Potential effects to cultural resources are described in Section 4.13. No Indian mounds or

sites associated with the Trail of Tears would be affected and no archaeological sites would be adversely affected.

- 111 The DEIS fails to mention the historic Bethlehem United Methodist Church, which is listed on the National Register of Historic Places and located near McAdoo Creek within Alt. 1 Corridor B.

N=1 (183)

Response: This historic church is outside of the area of potential effect for the Alternative 1 Corridor B transmission line route.

- 112 The proposed Alt. 1 Corridor B line would impact the historically significant McCauley Hill Farm. In addition to the historical significance of the farm itself, the farm and adjacent areas contain an Indian mound and significant Mound Builder culture archaeological sites. TVA has not performed the Section 106 analysis.

N=3 (105, 113, 183)

Response: The results of TVA's Section 106 analyses are described in FEIS Sections 3.13 and 4.13. The McCauley Hill Farm is outside of the area of potential effect for the Alternative 1 Corridor B transmission line route.

- 113 The comparison of potential cultural resources impacts is based on numbers of properties, and does not take into account the attributes of the individual properties. Basing the comparison on numbers alone may not accurately describe the potential impacts.

N=1 (182)

Response: A full analysis of the potential effects on cultural resources was conducted after the proposed transmission line routes were identified. The results of this analysis are described in FEIS Sections 3.13 and 4.13.

- 114 Table 2-1 indicates that Alt. 1 Corridor B has 6 archaeological sites and Alt. 1 Corridor D has 1, which appears inconsistent with Tables 3-11 which indicates that B has 4 "listed" sites and D has 3.

N=1 (195-EPA)

Response: This discrepancy has been corrected in the FEIS.

Socioeconomics

- 115 The DEIS states that construction workers building the proposed transmission line would primarily come from outside the affected area. Why is the selected project area not given a proportionate share in resulting employment opportunities?

N=1 (182)

Response: This statement is a reflection of the scarcity of workers trained for this type of work, not a reflection of hiring policy. TVA would hire the best applicants, regardless of their place of residence.

116 The Montgomery County routes run through very populous, rapidly growing areas. Why not use a Davidson County corridor that would affect fewer people and have lower property values?

N=16 (8, 9, 11, 60, 67, 68, 71, 78, 101, 110, 131, 135, 146, 153, 155, 170)

Response: As discussed in the Draft EIS, Section 2.2.2, Siting Alternatives, many factors are considered in determining the study area and the potential specific corridors within that area. Criteria considered include location of urban areas, commercial and industrial areas, schools, churches, and parks, in addition to natural and ecological features. In order to serve the continued growth in electric loads in the Nashville area and surrounding areas, additional 500-kV line capacity from the Cumberland Fossil Plant to this area is needed; otherwise, the area would become subject to wide disruptions in electric service (see the Draft EIS, Section 1.1, Background). The alternatives being considered are the result of a screening process that took into account the various criteria mentioned above. The process attempts to minimize the total impacts on all the pertinent factors. However, there will always be some impacts to at least some resources.

117 Southern Montgomery County is settled by permanent residents. The northern corridor is very transient, people there would be less affected.

N=3 (4, 59, 182)

Response: TVA considers the potential effects to all persons in the project area regardless of the time they have resided in a specific location. Many other factors are also considered in the siting process.

118 Alt. 1 Corridor B would impact several schools, about 2.5 times as many as the Cumberland-Davidson alternative. Where would the displaced students attend school?

N=4 (51, 85, 101, 128)

Response: No existing school campus would be crossed by any of the alternative line routes and no students would be displaced from schools.

119 The DEIS does not accurately state the number of homes that would be destroyed.

N=1 (135)

Response: The number of houses within 300 feet of alternative line routes is a factor in the selection of preferred routes. During the route planning process, TVA has made every reasonable effort to avoid occupied homes. The number of homes and other buildings that would be removed from the Alternative 1 Corridor B or Corridor D transmission line ROW is given in FEIS Section 4.11.1.

Property Values

120 The transmission line would reduce my property value, and limit my ability to sell my property in the future.

N=41 (1, 14, 16, 31, 35, 36, 48, 49, 50, 54, 56, 59, 61, 68, 69, 76, 80, 82, 87, 95, 97, 98, 101, 106, 107, 117, 123, 125, 126, 131, 134, 145, 146, 157, 159, 161, 166, 174, 177, 179, 189)

Response: Impacts on property values are discussed in FEIS Section 4.14. During the appraisal process, the TVA appraiser evaluates the property before imposition of the transmission line easement and after the transmission line easement is in place. TVA pays market value for the easement plus the amount of any reduction in value to the remaining property outside of the easement area indicated by the before and after appraisals.

TVA has conducted market studies on the impact of transmission lines on property values and reviewed results of similar studies elsewhere. The studies conclude that there is little to no impact to property values except in those instances where the line is in very close proximity to a residence or crosses a tract in such manner that would prevent or limit its development. It is common for new residential construction to take place adjacent to existing transmission line easements. The market studies do not indicate that a transmission line renders a property "unsellable;" on the contrary, landowners buy and sell properties encumbered with transmission lines easily and often.

121 Will TVA compensate landowners for the loss of property value for property near to but outside the right-of-way?

N=19 (15, 22, 23, 30, 50, 52, 65, 77, 86, 90, 91, 118, 135, 137, 138, 140, 143, 147, 169)

Response: TVA only appraises and compensates landowners for those properties where TVA purchases right-of-way easements or other rights, such as to place guy wires or cut danger trees. If the tract is not directly affected by the transmission line, its landowner is not compensated.

122 TVA's goal of providing electric power at the lowest possible cost must be balanced with the impact of power distribution on the surrounding community, so that the price per kilowatt-hour represents the real cost of power production that is not dependent on an unfair subsidy to the general public by landowners who are unwillingly forced to relocate or suffer devaluation of their property.

N=1 (2)

Response: Comment noted. TVA pays fair market value for land rights purchased for its transmission system, including those cases where the rights include relocation. See also the response to Comment 120.

Property Taxes

123 The socioeconomic discussion in the DEIS does not address impacts on local property taxes.

N=4 (26, 135, 140, 182)

Response: Valuation of property for local tax purposes is a function of local government in Tennessee. If the property assessor determines that an individual property has a lesser value because of a transmission line, there would be a small negative impact on local property tax receipts. Should the purchase and removal of a house be required prior to transmission line construction, the appraised value of the affected property would be reduced. Alternatively, the appraised value of the property where the relocated occupants settle could be increased. The total impact of such situations on local tax revenues would be very small and not significant.

124 The presence of a TVA right-of-way on 75 acres of our property has not resulted in any reduction in our property taxes.

N=1 (144)

Response: Comment noted. The valuation of property for local tax purposes is a function of local government in Tennessee. If you have reason to believe that the presence of the right-of-way has reduced the value of your property, you should discuss the issue with your local property assessor.

Environmental Justice

125 This appears to be a classic environmental justice case, with poor farmers and rural landowners being impacted to provide power to rich big city residents.

N=1 (81)

Response: Potential environmental justice impacts are described in FEIS Section 4.14.

126 EJ – The DEIS (pg. S-9) states that “[t]he two most rural and least populous counties, Houston and Stewart, have high unemployment rates...compared to the study area and state averages” and that Davidson and Montgomery Counties “have the highest minority population...” In terms of analysis, page S-14 states that “[b]ased on coarse scale analysis, environmental justice impacts are likely to be insignificant; they will be evaluated in detail once transmission line routes are known.” However, given that counties within the project area have high minority populations and others have high unemployment, it is unclear how this determination was made. As suggested above, more specific analyses should have already been presented in the DEIS. At a minimum, results from the referenced “coarse scale analysis” should have been presented as substantiation. The FEIS should provide an analysis based on U.S. Census data.

N=1 (195-EPA)

Response: Because the extent of environmental justice concerns can vary widely over a relatively short distance, the detailed analysis of these impacts was completed after specific line routes were identified. The results of this analysis are presented in Section 4.14 of the FEIS.

127 The corridor through the Cunningham area (Alt. 1 Corridor B) would negatively impact low income/minority populations with little or no voice.

N=1(134)

Response: The results of the detailed analysis of environmental justice issues are presented in Section 4.14 of the FEIS.[]

Electric and Magnetic Fields

128 The DEIS does not adequately describe the health hazards, including cancer, leukemia, electric shock, associated with high voltage electromagnetic fields and electric shocks.

N=60 (1, 11, 14, 16, 18, 22, 29, 31, 33, 37, 40, 42, 43, 44, 46, 50, 59, 61, 66, 67, 71, 76, 77, 78, 79, 81, 82, 86, 87, 88, 100, 101, 106, 107, 118, 119, 121, 122, 123, 129, 130, 131, 134, 137, 138, 145, 146, 152, 155, 157, 159, 163, 167, 169, 172, 177, 179, 182, 185, 189)

Response: Additional information on this topic has been added to Section 4.15 of the FEIS.

129 How will the transmission line affect cattle, other livestock, pets and crops? Would it induce miscarriages in cattle? Will cattle be at risk from electrical shock?

N=4 (29, 50, 56, 134)

Response: Many research studies of the effects of electric and magnetic fields have been conducted on a variety of confined and unconfined farm animals and animals kept as pets. These studies have reported no adverse biological, behavioral, or health effects. There have been reported instances of dairy cows receiving electric shocks from ungrounded milking machines and other metallic objects. These situations are due to the wiring of the low voltage electrical system at the particular farm and are not related to high voltage transmission line. There is no evidence of the electric and magnetic fields from high voltage transmission lines affecting crops.

130 Give the expected electric and magnetic field strengths at ground level in and adjacent to the right-of-way.

N=3 (138, 171, 189)

Response: Electric field strength varies greatly with topography and the presence of vegetation or other objects on the right-of-way. Under normal power demand conditions the electric field directly under the proposed line at a height of one meter above ground would be about 10,000 volts/meter. On a flat, clear right-of-way, it would decrease to between 1,000 and 2,000 volts/meter at the edge of the right-of-way. The presence of vegetation or other objects would cause the field strength to decrease more rapidly.

Magnetic fields fluctuate instantaneously with the current flow in a transmission line and predicting the field strength at a particular place and time is difficult. Under normal daily peak load times, the magnetic field strength one meter above ground at the point where the conductor is closest to the ground would be between 20 and 50 milligauss (mG) and 1 to 3 mG at the edge of the right-of-way. Under maximum load conditions, such as at peak times on the hottest and coldest days of the year, comparable estimates are between 200 and 240 mG at the point where the conductor is closest to the ground and 20 to 30 mG at the edge of the right-of-way. The magnetic field strength 200 feet from the center of the right-

of-way under these maximum load conditions would be about 8 mG. Such conditions occur about 0.01% of the time.

- 131 How will the 500-kV transmission line affect radio and television reception from antennas and satellite dishes, cellular phone communications, cordless phones, and 2-way radio communications, and other electronic equipment?

N=4 (69, 87, 134, 177)

Response: The transmission line is designed to avoid interference with normal radio and television transmission and reception. If interference occurs, a person should contact the local TVA Transmission Service Manager and report the problem. The interference could indicate a malfunction with a piece of transmission system hardware or storm-related damage to the transmission line. Satellite dish reception and radio antenna systems normally are not impacted by a power line, although in rare circumstances the alignment of the dish or antenna with the power line may require a slight adjustment. Other modern electronic equipment placed in operation near a right-of-way should not be affected by a power line and if a problem occurs, it is usually the result of improper grounding of the building's electrical system or interference due with other nearby electronic equipment. TVA can assist in determining the source of the problem and recommend solutions. FM and AM radio receivers in vehicles may experience some brief static while passing under power lines. GPS systems under very rare circumstances of parallax may demonstrate interference that will require analysis to determine the best solution.

- 132 How will the 500-kV transmission line affect a person with a pacemaker?

N=3 (69, 134, 177)

Response: Persons wearing pacemakers should not experience difficulty when close to a transmission line right-of-way, or even walking under a transmission line, due to the design features of modern pacemakers. Some physicians, however, as an extra precaution, recommend that pacemaker wearers avoid prolonged walking under a transmission line or on the right-of-way. Such extra precautions typically do not extend beyond the edge of the right-of-way.

- 133 EMF – We note that the proposed 500-kV line is the highest voltage line in the TVA system. We therefore appreciate the discussion on EMF (pg. 84) and note the TVA use of a 300-ft buffer for unoccupied buildings and a 1,200-ft buffer for schools. It is somewhat unclear, however, if these buffer distances are the same for all transmission capacities, or if they would be broadened for major transmission lines such as the proposed 500-kV line. Further, given that six states also have minimum distance standards, how do the TVA buffers compare to these state standards? We also note (pg. 57) that Corridor D "...passes over I-24 and several thoroughfares near the Tennessee-Kentucky border..." What is the EMF buffer requirement in terms of height, if the selected alignment crosses over I-24 and/or other highways?

N=1 (195-EPA)

Response: The 300 foot buffer for occupied residences and 1,200 foot buffer for schools are TVA siting criteria that are used for siting all TVA transmission lines regardless of

voltage level. They exist primarily to avoid conflicts with current land uses. TVA has no control over subsequent development within these buffer areas.

No states have firm minimum distance standards for transmission line siting. Some states do, however, have guidelines for electric and magnetic field strengths on or at the edge of the right-of-way. New York and Florida have guideline values for 500-kV transmission lines stipulating that the electric field strength not exceed 8,000 – 10,000 volts/meter on the right-of-way and 1,000 – 2,000 volts/meter at the edge of the right-of-way. Both also use a magnetic field strength of 200 milligauss at the edge of the right-of-way as the maximum value. The field strengths along the edge of the right-of-way for the proposed TVA transmission line are expected to meet these guidelines; see the response to Comment 130.

Crossings of highways, including interstates, by transmission lines meet minimum heights as required by the National Electric Safety Code. TVA's designs are normally even more restrictive. The increased conductor height at highway crossings decreases the field levels of both electric and magnetic fields at ground level or at the height of vehicles passing under the line.

Health and Safety

134 Will TVA be responsible for any health-related problems resulting from the proposed transmission line?

N=1 (179)

Response: No such problems are anticipated from the construction or operation of the proposed transmission line.

135 Will TVA pay for periodic medical checkups to make sure the transmission line is not harming our health?

N=1 (179)

Response: No health problems requiring periodic medical checkups are anticipated from the construction or operation of the proposed transmission line. See Section 4.15 of the EIS.

136 We believe this DEIS has addressed most of our potential health and safety concerns which might pose threats to human health with three exceptions. The Final EIS should address whether or not any residents will be displaced by this construction project. If so, these human impacts should be addressed and planned relocation efforts described.

N=1 (191-CDC)

Response: Additional information on relocations resulting from right-of-way acquisition has been added to Sections 2.1.1 and 4.11 of the FEIS.

137 The Final EIS should address worker safety measures that will be followed for the estimated 75 workers for the 21 month construction period.

N=1 (191-CDC)

Response: TVA has an extensive safety program and worker safety is a key element of its overall corporate policy. The TVA transmission organization is likewise strongly focused on worker safety and makes it a priority in its daily operation. TVA has prepared job safety analyses for the tasks associated with transmission line construction and these analyses are used in planning each work phase. In addition, the transmission organization has a safety handbook, comprising over 300 pages, in the possession of every employee which details proper procedures to insure safe construction and operation. These materials are not included within this document for the sake of brevity.

138 How will the herbicides to be used affect a person with severe allergies?

N=1 (22)

Response: TVA's use of herbicides to maintain the proposed right-of-way is not anticipated to affect allergies. All herbicides are labeled by EPA and applied in accordance with label requirements.

139 The proposed transmission line will create a new fire hazard. What will TVA do to reduce this increased risk?

N=1 (134)

Response: The proposed transmission line will comply with the standards of the National Electric Safety Code and will not constitute a fire hazard.

Aviation

140 I am concerned about the impacts of an additional transmission line on training operations at Fort Campbell. Will the towers create an additional risk for helicopters training missions?

N=2 (2, 134)

Response: TVA has coordinated the siting of its proposed transmission line with Fort Campbell to ensure that base flight operations are not adversely affected.

141 Alt. 1 Corridor B would interfere with the flight path of Gateway emergency helicopters to Nashville.

N=1 (44, 51)

Response: TVA will comply with all applicable FAA regulations in the design, construction, and operation of the transmission line.

Noise

142 The EIS contains no discussion of the noise created by high voltage lines. The noise is worst in very humid conditions. Is the noise constant?

N=2 (81, 179)

Response: The noise levels from high voltage transmission line vary with weather conditions. Additional information on noise from transmission line construction and operation has been added to the FEIS as Appendix J.

143 We already have to endure a new, noisy service station near us. We don't need any more disturbances.

N=1 (67)

Response: Comment noted. Additional information on noise from transmission line construction and operation has been added to the FEIS as Appendix J.

Air Quality

144 Will ozone be emitted by the new transmission line?

N=1 (134)

Response: Small amounts of ozone may be generated by a high voltage transmission lines under certain conditions. The amount of ozone generated would not affect ambient air quality conditions.

145 The transmission line is being built to supply markets other than the Montgomery County area, as well as another state. Why is it then being built in Montgomery County, whose residents will also suffer from increased air pollution by being downwind from Cumberland Fossil Plant?

N=1 (168)

Response: The need for the proposed transmission line is described in Chapter 1 of the EIS; see also the responses to comments on the project Purpose and Need, above. Any changes in electrical generation at Cumberland Fossil Plant following the construction of the proposed transmission line would be negligible. Cumberland's two units operate primarily in a base load manner meaning they are operated whenever they are available to be operated. The proposed transmission line will not affect this.

Project Financial Considerations

146 Minimizing costs is stated as a planning objective. In the summary comparison of number of houses, etc., in each corridor, have you compared the costs of buying the different properties?

N=1 (182)

Response: The actual costs of purchasing easements would not be established until appraisals and negotiations with landowners are complete. However, TVA has considered average land costs during the siting process including estimated costs for acquiring buildings.

147 If you choose to build the line through residential areas at tremendous expense, will you raise your rates in order to pay for the line?

N=2 (71, 179)

Response: Rates are set by the TVA Board of Directors based on their evaluation of overall operating and capital costs. Costs are one of the criteria that TVA considers as it conducts its line siting and evaluation process and line routes with lower costs are deemed more preferable than routes with higher costs, all other things being equal.

148 Has TVA requested more funding to pay for the additional length of the Cumberland-Davidson alternative? An environmental or other grant, or funding from the state, should be available to prevent the destruction in the Clarksville area.

N=1 (117)

Response: The funding for this project would be part of TVA's yearly capital budget for the construction period. That budget is determined each fiscal year by TVA management and the Board of Directors.

149 Given TVA's \$29 billion debt, how can it afford to build new transmission lines?

N=1 (106)

Response: TVA has the goal to reduce its accumulated debt in a manner that allows it to continue to provide reliable, affordable electric service to its customers and the public of the Tennessee Valley region. Under this goal, debt has been reduced to approximately \$26 billion. Maintaining the reliability of its transmission line system is critical to continuing to reliably serve the public. See the response to comments 147 and 148 and Chapter 1.

150 Will the city of Clarksville receive any compensation from TVA for installing the transmission line?

N=1 (117)

Response: TVA makes payments in lieu of taxes to each of the seven Valley states based on several criteria including the value of TVA assets located in each state. That money is allocated to local governments at the discretion of each state.

Public Involvement

151 Why were landowners in the preferred corridors not contacted personally and/or earlier?

N=16 (21, 22, 25, 29, 46, 49, 56, 57, 58, 68, 70, 80, 88, 90, 92, 190)

Response: Additional information on the notification of landowners has been added to FEIS Sections 1.7 and 2.2.2. Potentially affected landowners within the two preferred Alternative 1 corridors were notified by mail and invited to public meetings to discuss potential transmission line routes.

152 Why has TVA not made a better attempt to involve potentially affected landowners earlier?

N=12 (4, 61, 62, 66, 68, 74, 78, 105, 149, 152, 159, 170)

Response: See the response to Comment 151.

153 I have not had enough time to review the environmental impact study.

N=21 (1, 9, 12, 21, 25, 50, 53, 57, 72, 76, 87, 88, 92, 105, 117, 135, 145, 170, 175, 178, 182)

Response: The official comment period lasted 54 days and TVA continued to accept comments for several weeks after the closing of the official comment period. Applicable procedures only require a 45-day period for public comments. TVA has also decided to accept and consider comments on its FEIS.

154 How and when were the county commissioners, city officials, and state and federal politicians informed of this project?

N=5 (7, 19, 72, 87, 125)

Response: Elected officials received either written notices or personal visits by TVA personnel to inform them about the project at each of the public participation steps described in Chapter 1.

155 Public notification of this project has been inadequate.

N=23 (22, 25, 28, 29, 40, 43, 50, 52, 53, 70, 76, 79, 102, 117, 135, 142, 145, 146, 168, 177, 178, 179, 182)

Response: See the response to Comment 151 and Sections 1.7 and 2.2.2 of the FEIS.

156 The post cards notifying people of the open house meetings looked like junk mail and therefore were discarded by many people.

N=3 (3, 91, 178)

Response: Comment noted.

157 TVA has narrowed the number of potential corridors for the Cumberland-Montgomery alternative from four to two with no public input.

N=1 (126)

Response: TVA's rationale for identifying the preferred corridors was described in the DEIS and in Section 2.5 of the FEIS. Once the DEIS was issued to the public, TVA carefully studied the public comments on its preferred corridors and used this information in deciding whether to continue detailed investigations of Alternative 1 Corridors B and D or select different preferred corridors. TVA did not receive any information from the public that caused them to select different preferred corridors. Comments will be accepted on the FEIS, including the routes now identified as TVA's preferences.

158 As a member of the military currently in the Middle East, I am concerned that my wife and others acting as heads of households will not be able to deal with your proposal.

N=1 (158)

Response: Comment noted.

159 Why were we not told about the meaning of the road markings in front of our house?

N=1 (41)

Response: Any such road markings placed by TVA were to provide reference points for aerial photography used in the planning process. Such reference points do not indicate potential route locations.

160 Will TVA provide detailed maps showing the exact tower placement for each route?

N=1 (18)

Response: The exact tower placement will not be known until field surveys and detailed engineering and design studies are completed. All landowners crossed by the final route will see drawings with exact structure locations prior to any right-of-way being purchased. [

161 TVA's approach is one of "divide and conquer," pitting Montgomery County citizens against each other.

N=1 (85)

Response: Comment noted. The process TVA used in selecting potential transmission line routes is described in FEIS Section 2.2.

NEPA Process

162 TVA has violated the letter and spirit of NEPA by narrowing its focus to two corridors before the comment period on the original full range of options has ended.

N=1 (102)

Response: TVA gave equal consideration to both alternative study areas and the corridors within each study area during the preparation of the DEIS. The identification of a preferred alternative in a DEIS is strongly encouraged by Council of Environmental Quality regulations implementing the National Environmental Policy Act (CFR § 1502.14). See also the response to Comment 157.

163 For several resource areas (cultural resources, wetlands, visual resources, socioeconomics), the statement is made that potential impacts will be assessed once actual line routes are known. This would be too late in the planning process.

N=1 (182)

Response: The FEIS presents the results of detailed assessments of these resource areas for the preferred transmission line routes. Numerous adjustments to potential line routes were made during the planning process to minimize potential impacts to resources discovered during field investigations.

164 EPA is concerned with the level of analysis at the DEIS state. Although we understand that refinements typically still occur at and beyond the FEIS state and during final routing and design, EPA is concerned that the current alternatives analysis for the transmission line is limited to a corridor-level analysis as opposed to a more specific alignment-level analysis. This approach restricts the level of detail of the analysis, which is acknowledged several times in the DEIS (e.g., pg. 83: "...a more detailed evaluation cannot be completed until actual line routes are known"). As such, comparisons of alternatives, and corridors within those alternatives, are rather general since it is unclear if corridor alignments will avoid or span important wetlands, managed areas, cultural resources and other features, or if unavoidable impacts will be adequately compensated.

N=1 (195-EPA)

Response: Comment noted. The results of specific alignment-level analyses are presented in the FEIS. Commencement of the NEPA review process early in the proposed siting of new transmission lines initially requires consideration of less-detailed, more general information, depending on the resource in question. TVA employs an iterative process in the siting and analyses of proposed transmission line routes and alternatives. This allows environmental and public concerns to be factored into the identification of feasible line routes with increasing levels of detail as the identification of line routes and route segments evolves. Alternatively, TVA could conduct these evaluations internally and present for public consideration essentially completed analyses with preferred line routes fully identified at the beginning of the process. We believe TVA's iterative process provides the public multiple and better opportunities to influence the decision-making process and is fully in keeping with all applicable requirements. See also the response to Comment 163.

165 It appears that the decision described in DEIS Section 1.3 has already been made.

N=1 (182)

Response: Section 1.3 of the EIS identifies the decisions which TVA must make in order to address the need for a more reliable, higher capacity 500-kV electric transmission system in Middle Tennessee. Although the DEIS and FEIS identify TVA's preferred alternative, the actual decision will not be made until at least 30 days after the FEIS is issued.

166 The DEIS does not consider the cumulative effects of constructing a new transmission line.

N=1 (102)

Response: Potential cumulative impacts are addressed explicitly or implicitly in the resource areas where it is pertinent to do so. Baseline conditions from which potential changes are considered also reflect the currently, cumulatively impacted environment.

167 The DEIS does not contain an adequate analysis of the relative economic and environmental costs of upgrading existing lines compared to building a new line.

N=1 (102)

Response: This potential alternative was rejected early in the planning process as not being practicable or meeting project needs. Adding a second 510-kV circuit to the existing Cumberland-Davidson 500-kV transmission line would not reduce the threat from loss of the line. Other transmission lines in the region which might be candidates for upgrading are 161-kV or lower voltage which would require acquisition and clearing of additional ROW, and the complete rebuilding of the existing lines. In many cases, the existing transmission lines cannot be removed from service for any length of time. Because of dense urban development adjacent to portions of the existing lines, widening the existing ROWs would require purchasing and removing many more buildings than would occur with the Alternative 1 Corridor B and Corridor D routes.

Commitments and Mitigation

168 Commitments – Some of the language used in this DEIS does not provide a commitment for environmental action but rather only describes what could occur *if* guidelines are followed. Page 72, for example, states that: “By following the appropriate requirements on identified streams, the design, construction, and maintenance of this transmission line in any of the alternative study areas would not result in significant impacts to aquatic life.” Similarly, page 75 states that “[i]mpacts can be minimized by crossing at the narrowest point near the wetland edge.” A better approach would have been to commit to following such requirements or procedures so that there would be no (or less potential for) significant impacts. In contrast, some commitments are made. Page 73, for example, states that: “No significant impacts are expected as a result of transmission line crossings of scrub-shrub or emergent wetlands or those wetlands that are within the banks of streams because structure placement in these wetlands would be avoided and there would be at least a 50-foot stream buffer zone” (*Note: We assume that this buffer zone is an undisturbed, natural buffer zone*).

N=1 (195-EPA)

Response: Comment noted. TVA identifies feasible mitigation measures in its EISs. Many of these measures are routinely employed with all TVA projects, *e.g.*, use of Best Management Practices, and typically are described in mandatory terms. Other mitigation measures are formulated with specific reference to the proposed action at hand and these are typically identified as possible or feasible mitigation measures. Commitments to implement these measures are identified in Records of Decision, consistent with the direction of the Council on Environmental Quality. See 40 C.F.R. § 1505.2.

169 Mitigation – Page 86 states that “[a]dditional commitments and measures to mitigate adverse effects will be determined following field investigations of specific transmission line routes, and will be listed in the Final EIS.” In addition to the need for better documentation of impacts in the DEIS, as suggested above, at least preliminary mitigative measures for unavoidable impacts should also have been presented. The FEIS should identify areas where mitigative measures are needed for unavoidable impacts and provide commitments for appropriate compensation. Relative to the TVA preferred Corridors B and D, it may be more difficult to mitigate for impacts to forested wetlands which are more associated with D.

N=1 (195-EPA)

Response: Comment noted. See the response to Comment 168.

Miscellaneous

170 The use of the term “forensic” in Appendix D is unclear and needs clarification.

N=1 (133)

Response: Comment noted. The term was intended to refer to the testing of equipment and on-site environmental testing.

171 Page 81 twice makes reference to Section 4.10.1.1. However, this section does not exist in the text or Table of Contents. Other examples of such references also exist.

N=1 (195-EPA)

Response: These errors have been corrected in the FEIS.

172 What is the voltage of the existing transmission lines crisscrossing the city of Clarksville?

N=1 (19)

Response: The TVA transmission lines within the developed portions of Clarksville, west of I-24, are 161-kV lines.

173 A Spill Prevention and Containment Plan should be shown for procedures to be followed in the event of spills from construction traffic.

N=1 (191–CDC)

Response: Spill Prevention, Control, and Containment Plans are not required for mobile construction equipment. This issue, however, is addressed in TVA’s Best Management Practices, the environmental quality protection specifications listed in Appendices B, D and D of the EIS. It will also be addressed in TVA’s NPDES storm water construction permit application.

174 If TVA constructs this transmission line in Alt. 1 Corridor B, TVA would be violating its goals and environmental principals, as well as the lessons it has taught us on conservation and resource stewardship over the years.

N=4 (121, 184)

Response: Environmental concerns were an important factor throughout the planning of this project. TVA’s preferred alternative was selected based on environmental concerns, as well as cost, engineering, and land use concerns.

175 Concerns over flora and fauna in the proposed corridors take priority over impacts on landowners.

N=4 (23, 131, 146, 154)

Response: TVA met with potentially affected landowners during the planning of the proposed transmission line, and made numerous route adjustments to address landowner concerns. Landowners are compensated for ROW easements TVA purchases from them; the actual purchase price is based on the appraised value of the property rights and negotiated with landowners. See also the response to Comment 174.

176 What gives TVA the right to build the transmission line?

N=1 (138)

Response: The TVA Act provides TVA the authority to build the proposed transmission line as well as its responsibility to do so.

177 How does TVA quantify the value of the wildlife and open space that would be impacted by the proposed action?

N=1 (189)

TVA does not generally apply monetary values to these resources, but discusses potential impacts to such resources in terms that are normal for the specific resource, e.g., “acres” of wetlands. Monetizing natural resources can be done in various ways and typically is contentious.

178 A Department of Army permit pursuant to Section 10 of the Rivers and Harbors Act of 1899 would be required for any aerial transmission lines crossing navigable waters of the US. From the map provided in the DEIS, it appears that both ALTs 1 and 2 cross navigable waters, the Cumberland River, the Harpeth River, and others. The lines crossing navigable waters should be designed with an appropriate sag elevation so not to impact navigation.

N=1 (196 – COE)

Response: Comment noted. At crossings of the Cumberland River, the proposed transmission line conductors would have a minimum height of 92 feet above the high water elevation.

179 When the Department of Army application for the proposed work is finalized, it should be sent directly to the Cheatham Lake Resource Manager’s office, not the Regulatory Branch. They will address your needs for Corps of Engineers permits from both the Regulatory Branch and the Real Estate Division. Address the application to: Cheatham Lake Resource Manager’s Office, 1798 Cheatham Dam Road, Ashland City, TN 37015. Point of contact is Larry Nash, telephone 615/254-3734.

N=1 (196-COE)

Response: Comment noted.