



Audubon ARKANSAS

April 17, 2015

Plains & Eastern EIS
216 16th Street, Suite 1500
Denver, Colorado 80202

Draft Environmental Impact Statement for the Plains & Eastern Clean Line Transmission Project
(DOE/EIS-0486; Draft EIS)

Submitted electronically to: <http://www.plainsandeasterneis.com> on April 17, 2015

On behalf of our nine active local chapters and 2,979 members, Audubon Arkansas is pleased to submit these comments on the draft Environmental Impact Statement (EIS) for the Plains & Eastern Clean Line Transmission Project where it passes through the state of Arkansas. Audubon's mission is to protect birds, other wildlife and their habitats, and our comments focus on the potential impacts to those resources. Audubon strongly supports the development of clean alternative sources of energy when properly sited so as to minimize risks to birds and essential habitat. Portions of the Clean Line route traverse environmentally significant areas, including a globally significant Important Bird Area (IBA) and, as such, the permitting of the project raises concerns, which we address in these comments.

Clean Line, a 4,000 MW HVDC transmission line from Oklahoma to Tennessee, will transect the length of the state of Arkansas. While appropriately identifying many environmental impacts associated with this project, and the steps that will be taken to address these, the draft EIS failed to examine impacts to IBAs in the state. This omission is a particular concern to us.

Ensuring a Sustainable Outcome

Audubon recognizes the imperative that climate change creates for transitioning to a clean energy future: our own studies suggest climate change is the number one threat to the birds of North America over the next 65 years. The Clean Line transmission project will contribute to a transitioning away from reliance on carbon emitting power plants and so will play a useful part in reducing associated greenhouse gas emissions. However, as our nation takes steps to increase its reliance on clean energy resources, it is imperative that the new clean energy infrastructure be sited in an environmentally responsible way. Siting new infrastructure well entails fully utilizing measures to avoid and minimize impacts and providing robust compensatory mitigation for unavoidable impacts. This is particularly true when impinging upon high value natural areas, public lands, and when threatening populations of species of conservation concern, all issues for the proposed Clean Line routes in Arkansas. Our comments regarding the EIS for the Clean Line project focus on these environmental considerations, with recommendations for actions to ensure that adverse impacts are minimized.

Our top concerns regarding the permitting of the Clean Line are:

- The necessity of including the Arkansas Converter Station alternative: the permitting of this project should only move forward with the inclusion of an Arkansas Converter station that delivers a minimum of 500 MW of renewable power to Arkansas electric consumers.
- The necessity of oversight of the Avian Protection Plan (APP): the permitting of this project must be conditioned upon the completion of an APP that is satisfactory to the US Fish and Wildlife Service (USFWS) as well as the Arkansas Game and Fish Commission (AGFC); written approvals from both agencies should be obtained prior to issuing approvals for construction.
- The necessity of an Integrated Vegetation Management (IVM) Plan: prevention of non-native species and use of low-growing native vegetation should be promoted.
- Adverse impacts to the Cache-Lower White River IBA and other critical habitat areas in the state must be fully mitigated through avoidance, minimization, and, when adverse impacts cannot be avoided, substantial compensatory mitigation.
- Potential adverse impacts to other ecologically sensitive areas impact our recommendations regarding the Applicant's Preferred Route (APR) versus Alternative Routes (AR), which are:
 - AR 6-B at the Cache-Lower White River IBA; this AR parallels an existing roadway (Highway 14), minimizing overall habitat fragmentation in this globally significant IBA
 - Alternative routes to the north of Fog Bayou Wildlife Management Area (WMA)
 - APR plus APLIC-recommended mitigation measures at the Mississippi River crossing, supplemented by species impacts monitoring and remediation, if needed, for listed species at this location.
- Compensatory mitigation should be stipulated at levels well above a 1:1 acreage replacement rate, as has been required by federal agencies for other transmission lines that degrade and convert high value habitat areas.
- The permit must include provisions for monitoring to provide certainty of mitigation measure success, and enforcement provisions to ensure appropriate remedies when mitigation stipulations are not fully implemented or fail to achieve the intended outcomes.
- Maximum possible use of monopole support structures to minimize environmental impacts, especially in areas of native vegetation.
- Water crossings should be treated with utmost care. Where unavoidable, they should occur at the narrowest practical points, minimize habitat fragmentation, and be directed perpendicular to the water body.

We explain these considerations more fully in the remainder of these comments.

Necessity of including the Arkansas Converter Station

Audubon appreciates the DOE adding an Arkansas Converter Station to the draft EIS as a project alternative. It is our understanding that the Applicant also supports the inclusion of this alternative. For Audubon the inclusion of an Arkansas Converter Station that delivers a minimum of 500 MW to the Arkansas power grid is a necessity to support the project. As the Arkansas landscape will be completely bisected by the proposed transmission project, for us it is imperative that this state reap at least a part of the benefit of the clean energy being delivered to market. As the delivery of clean energy is a key offset for some of the environmental impacts associated with the construction and maintenance of the transmission corridor, it is a matter of basic fairness that Arkansas benefits from a share of this resource. The DOE should require the inclusion of the Arkansas Converter Station in order to permit this project.

Necessity of an Avian Protection Plan and Mitigation Action Plan

The EIS identifies a number of federally listed species potentially affected by either the construction or the operation of the Clean Line. Within Arkansas, this includes potential impacts to Piping Plover and Interior Least Tern, federally listed species with threatened and endangered status, respectively.¹ It is incumbent upon DOE to make the permitting of this project contingent upon the successful completion of a satisfactory APP. The determination of the adequacy of the APP must be made by the agencies holding the management obligations: USFWS and AGFC. In addition to addressing impacts to state and federally listed species, the APP should also address Arkansas's Species of Greatest Conservation Need: those species whose populations are disproportionately dependent upon management actions within the state.² In addition, Audubon believes that species for which the Cache-Lower White River was designated as a Global Important Bird Area should be considered in the APP as well (see below).

Because the permitting of this project assumes that compensatory mitigation will offset adverse project impacts, it is essential that mitigation actions be rigorously monitored and enforced. DOE must require documentation of specific mitigation obligations to be fulfilled by the project applicant, with monitoring and enforcement provisions also explicitly described in a mitigation plan. Mitigation obligations stipulated in the conditions of the permit will need to be of commensurate duration as the project impacts, with remedies specified for underperformance and/or failures of the mitigation actions.

Necessity of an Integrated Vegetation Management (IVM) Plan

Permanent habitat alterations in the ROW are unavoidable. Yet the vegetation within the ROW can provide healthy wildlife habitat. A properly managed transmission line corridor can be a haven for many birds, pollinators, and other declining species. A Transmission Vegetation Management (TVM) Plan is a requirement for the project. IVM is an optional component of a TVM Plan that is consistent with the requirements in FAC-003-02, and provides practitioners with what industry experts consider to be the most appropriate techniques to apply to electric right of way projects in order to exceed those requirements. Rather than routinely mow to the ground or broadcast-herbicide the ROW, instead spot-spray herbicides on unwanted plants, and let everything else grow in to form a scrubby habitat of wildflowers, sedges, ferns, and low shrubs. As the scrub vegetation grows in, it excludes many taller trees. The DOE should require an IVM Plan be incorporated into the TVM Plan. The IVM Plan should follow the standards provided by the Right-of-Way Stewardship Council.³ Furthermore, Audubon recommends that the Applicant become accredited by this Council.

Adverse Impacts to the Cache-Lower White River IBA

The IBA Program is a global initiative, involving 125 partners worldwide, which identifies areas that provide critical habitat for one or more species of birds that merit protective conservation action. Sites are recognized if they support populations of threatened birds, large congregations of birds, and birds restricted by range or by habitat. Identified for their value to birds, the significance of IBAs extends to other taxonomic groups, with these areas generally representing key sites for the conservation of biodiversity.

In Arkansas, all routes proposed for Clean Line will create adverse impacts to the Cache-Lower White River IBA, an area designated as a globally significant. Classification as a globally significant site is the highest priority designation for an IBA, signifying that the Cache-Lower White River area is a site worthy

¹ See <http://ecos.fws.gov/speciesProfile/profile/speciesProfile?spscode=B079> and <http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spscode=B07N>

² See <http://www.wildlifearkansas.com>

³ See <http://www.rowstewardship.org>

of strong protection. Further validating the high value of this area is its additional designation as a Wetland of International Importance.⁴

The bird species that make this area an IBA are among the birds that are susceptible to collisions with transmission lines. This is the most important wintering area for Mallards in North America; hundreds of thousands occupy the area's bottomland hardwood forests. A large number of Wood Ducks nest and winter all along the rivers in this IBA. Thousands of southbound Mississippi Kites, and Red-tailed, Red-shouldered, and Broad-winged Hawks migrate through the region and breed in the area. Bald Eagles winter and breed there as well. Because of its very large, contiguous stand of bottomland hardwood forest, this IBA is one of the few prime locations in the Mississippi Alluvial Valley capable of supporting self-sustaining populations of forest interior breeding birds that are sensitive to habitat fragmentation, including: Acadian Flycatcher, Wood Thrush, Prothonotary Warbler, Hooded Warbler, Swainson's Warbler, and Cerulean Warbler.

If the transmission line is to cross the Cache River within the IBA, Audubon prefers AR 6-B, which parallels Highway 14. We prefer that manmade structures and habitat disturbances be aggregated rather than dispersed. Avoid fragmenting the corridor of riverine habitat between Highway 14 and County Rd. 30 by erecting an additional hazard to bird movement where none exists. Audubon also requests that where the transmission line crosses the Cache River, the Applicant installs multiple types of collision deterrent devices and actively monitors this span for avian collisions.

Impacts to other high value wildlife habitats

Frog Bayou

The APR crosses Frog Bayou WMA. Here and all along the route, Audubon encourages avoidance of public lands. Public lands are there for the use and benefit of all people, and serve to protect valuable wildlife habitat that is largely missing from the surrounding landscape. Frog Bayou WMA in particular is a known waterbird concentration site. This area of restored emergent marsh along the Arkansas River is a magnet for hundreds of waterfowl, wading birds, marsh birds, shorebirds, gulls, and terns. These are all birds that are susceptible to transmission line collisions and electrocutions. Though the site has yet to be nominated, it may qualify as an IBA because of such bird concentrations. It may also qualify if it harbors significant populations of one or more of the following Arkansas Birds of Conservation Interest known to occur there: Pied-billed Grebe, American Bittern, Least Bittern, Little Blue Heron, Black-crowned Night-Heron, Yellow-crowned Night-Heron, White Ibis, Osprey, Mississippi Kite, Northern Harrier, King Rail, Buff-breasted Sandpiper, American Woodcock, Least Tern, Sedge Wren, and Marsh Wren.

A transmission line in this area is not only a threat to these birds, but also potentially hems in the WMA, preventing future growth or setting up a situation where the WMA is intersected by the transmission line should additional land be purchased and restored. Further, much of the low-lying landscape between the Arkansas River and the towns of Van Buren, Alma, Dyer, and Mulberry are home to large concentrations of waterbirds.

Audubon believes this larger landscape that includes Frog Bayou WMA may qualify as an IBA. For these reasons, we prefer the alternative routes north of the river valley area. If the APR is selected, then Audubon requests that the Applicant installs multiple types of collision deterrent devices and actively monitors this span for avian collisions.

⁴ See description of the IBA and Wetlands designations at <http://netapp.audubon.org/iba/Site/1979>

Mississippi River

The APR cross the Mississippi River and, at this juncture, must be assessed for impacts to species of conservation concern, including the federally listed Interior Least Tern. Thousands of Least Terns nest on sandbars along the river with the nearest potential nesting area just two miles downstream at River Mile 760.0, and the next closest four miles upstream at River Mile 766.2. AR 7-A is two miles upstream from the colony at River Mile 766.2. The Applicant's EIS states "Interior Least Terns may avoid nesting in the vicinity of structures that could serve as perches for avian predators." For this reason, Audubon believes there is potential for harm to Least Terns at these sites. The Applicant's EIS also states "Data regarding collision risk for the interior least terns are inconclusive; some studies report higher risk compared to other species (McNeil et al 1985) and other studies reporting a low risk for collisions (Henderson et al. 1996; Savereno et al. 1996, Dinan et al. 2012)."

Given the potential collision risk to Least Terns and the greater risk to much larger birds such as the American White Pelican, Double-crested Cormorant, and many species of waterfowl and wading birds, Audubon requests that where the transmission line crosses the Mississippi River, the Applicant installs multiple types of collision deterrent devices and actively monitors this span for avian collisions.

Singer Forest Natural Area

The APR corridor crosses the corner of Singer Forest Natural Area. The Arkansas Game and Fish Commission holds fee title and co-manages this natural area as part of St. Francis Sunken Lands WMA, which is an IBA for bottomland hardwood forest species such as Swainson's Warbler, Wood Thrush, and Mississippi Kite. For this portion of the route, Audubon prefers AR 6-C or 6-D, which avoid this tract all together. Alternatively, the APR could jog north across the Oak Donnick Floodway a mile or two to the west of Singer Forest, so that Singer Forest is avoided.

Monitoring and enforcement

The literature is replete with documentation of the poor performance of many compensatory mitigation projects. For example, studies have documented systemic underperformance outcomes including that more than half of wetland restoration projects fail to re-establish the native vegetation communities specified in the mitigation plans, that one-fifth of project sites had less mitigation acreage in actuality than what had been stipulated in the permits, and that as a body, wetland mitigation projects resulted in a net loss of forested wetlands.⁵ The conditions of the permit for Clean Line need to be established in a manner that will document success or failure and include remedies for failure to be executed in a timely fashion. The determinations of mitigation success or failure should be made by the pertinent state and federal agencies with management responsibilities for the species and ecological communities that are being protected.

Monitoring and enforcement criteria, resources, and enforcement remedies need to be specified for listed species protections as well as habitat conservation. The lack of protections provided at this juncture for listed species such as the Interior Least Tern and the Piping Plover creates management

⁵ See for example, Brown and Veneman, "Effectiveness of Compensatory Mitigation Projects in Massachusetts," *Wetlands*, Vol. 21, no. 4, retrieved at <http://link.springer.com/article/10.1672/0277-5212%282001%29021%5B0508:EOCWMI%5D2.0.CO%3B2#page-1>, Morgan and Roberts, "Characterization of Wetland Mitigation Projects in Tennessee," *Wetlands*, Vol. 23, no. 1, retrieved at <http://link.springer.com/article/10.1672/0277-5212%282003%29023%5B0065:COWMPI%5D2.0.CO%3B2#page-1> or Cole and Shafer, "Section 404 Wetland Mitigation and Permit Success Criteria in Pennsylvania, USA", *Environmental Management*, Volume 30, no.4, retrieved at <http://link.springer.com/article/10.1007/s00267-002-2717-4#page-1>

uncertainty and risk. Potential adverse impacts to these species and others need close scrutiny and strong protections as the APP is developed for this project. DOE must not permit the Clean Line project until an APP for these species and others is approved by USFWS and AGFC. Clear adaptive management provisions for addressing unexpected outcomes should be included in the APP; management and mitigation requirements must be durable, lasting for the duration of adverse impacts created by the project.

The need for robust compensatory mitigation requirements

The benefits provided by compensatory mitigation are inherently more uncertain than those provided by avoidance of high risk sites. Avoided impacts are, by definition, equivalent in scale, kind, and duration to the adverse impacts that would have occurred otherwise. This equivalency is not inherent in compensatory mitigation measures. Compensatory mitigation measures may simply under-perform and hence provide less benefit than projected, or may decay in effectiveness over time, yielding declining compensatory benefits while the adverse impacts continue at a relatively constant level from year to year. In the face of these uncertainties, to ensure that adverse project impacts are fully offset, and to signal that avoidance is valued more highly than mitigation, it is imperative to establish a compensatory mitigation ratio substantially greater than 1:1.

The use of compensatory mitigation ratios substantially greater than 1:1 acreage replacement is increasingly standard. Two recent transmission line case studies illustrate this practice: the Susquehanna-Roseland line in Pennsylvania and New Jersey, and the Maine Reliability Project in Maine. The compensatory mitigation packages for these projects yielded 10-80 acres of mitigation lands for each affected acre of high value natural or cultural resource lands.

Susquehanna-Roseland⁶

One of seven pilot projects included in the Obama administration's Rapid Response Transmission Team permitting initiative, the Susquehanna-Roseland transmission line EIS and approval process resulted in a significant compensatory mitigation package. A mitigation fund of \$66M, paid for by the transmission companies, was established to be used in National Park Service-directed compensatory mitigation land acquisition. Mitigation moneys were used to purchase and preserve lands for public use; enhance wildlife habitat and pathways for migratory birds; improve public access to affected river corridor and trails; and offset impacts to wetlands, cultural and historic properties, and other impacts of the project.

Like Clean Line, the Susquehanna-Roseland Project crossed a river corridor with public lands and valued natural resources. In the 4.3 mile area for which the compensatory mitigation package was established, the ROW was adjacent to or within existing ROW areas owned by the transmission companies. This land was public land, owned and managed by the National Park Service (NPS). In Arkansas, Clean Line transects public lands owned and managed by the AGFC, a federally funded wildlife management area, and impacts river corridors with high value resources.

Where the line crossed National Park Service lands, the unavoidable impacts were associated with widening of the ROW by 50' along the 4.3-mile length situated within public lands. Land acquisition

⁶ Project details are available on-line; the information cited here was retrieved from:
<http://www.nps.gov/dewa/learn/news/100212-power-line-ok.htm> <http://www.pplreliablepower.com/projectupdates.htm>
<https://www.pseg.com/info/media/newsreleases/2012/2012-03-29.jsp>
<http://www.nationalparkstraveler.com/2014/12/delaware-water-gap-national-recreation-area-gains-more-350-acres-mitigation-transmission-line26028>

accomplished with the mitigation payments totaled 354 acres in 2012; this would have amounted to a replacement ratio of 13.6 acres for every acre permanently converted to ROW if that conversion had been necessary along the entire 4.3 miles. In fact, the area which required widening was much less, resulting in a mitigation to lost acreage multiplier closer to 80.

*Maine Reliability Project*⁷

The Maine Reliability Project transmission line, permitted in 2010 by the Maine Department of Environmental Protection along with the Army Corps of Engineers, was negotiated to minimize impacts to wetlands, forest, and other habitat types. The remaining permanent, unavoidable impacts included 14 acres of wetland, with three acres of fill in wetlands of special significance; 366 acres of forest wetland conversion to scrub/shrub, including losses of 216 acres rated as high/moderate value waterfowl habitat by Maine's Department of Inland Fisheries & Wildlife; and 70 acres of vernal pool habitat impacts.

The approved compensation package protects 4,642 acres of varied bird, vernal pool and other habitats and more than 2,100 acres of preserved high value wetlands as compensation. Within these mitigation lands are 315 acres of preserved wading bird/waterfowl habitats rated as high/moderate value, and 678 acres of vernal pool habitat enhancement and preservation.

Similarities to the Clean Line project include the impacts to waterfowl habitat and to important wetland forest habitats, and the ROW route involving greenfield areas predominantly. The mitigation ratio for the overall project is approximately 10.3 acres protected per habitat acre lost, not including additional in lieu fee payments of \$1.5 million into the Maine Natural Resource Conservation Program; these funds will be used to protect other high value habitats within the ecological regions impacted by the Reliability Project.

Maximum possible use of monopole support structures

The draft EIS identifies two types of support structures that will be used for this project if it moves forward: monopole structures and lattice structures. Audubon recommends that the DOE encourage the maximum practical use of the monopole support structures, particularly in environmentally sensitive areas. The Monopole structure has a smaller permanent physical footprint, and would thus reduce predicted avian collision rates by reducing the overall surface area. Monopole structures also require less habitat disturbance and drilling during construction.

Water crossings

Audubon understands that with a project of this magnitude some number of stream and river crossings are unavoidable. We would caution the DOE to ensure that the Applicant exercises utmost care where the transmission corridor crosses a body of water. In general, we request that when crossings cannot be avoided the routing decisions follow the following guidelines. First, they should run perpendicular to the body of water being crossed to minimize impact. Second, they should seek to cross adjacent to existing infrastructure right-of-ways to minimize unnecessary habitat fragmentation. When that is not possible, they should cross at a narrow, high-banked area with the goal of spanning the water body without the need to erect structures in the riparian area. We incorporate by reference the comments of the USFWS regarding spanning riparian areas and identifying ecologically sensitive areas that pose increased risk to avian species.

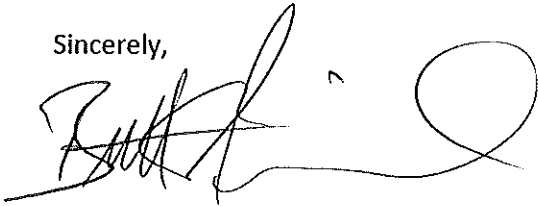
⁷ "Adapting Environmental Protection to 21st Century Climate Challenges," David Littell, Commissioner, Maine DEP, presented at the Chewonki Foundation Sustainable Energy Conference, May 2010.

In addition to the specific water bodies discussed above, we also incorporate by reference the comments of the Arkansas Game and Fish Commission regarding avoidance of adverse impacts to Big Piney Creek, the Mulberry River, the Little Red River, Bayou DeView's water trail, and the St. Francis River.

Conclusion

Given the well documented use of the Cache River, Mississippi River, and other affected sites by a number of priority species, Audubon Arkansas asks that the DOE stipulate the mitigation planning, implementation, and enforcement steps described herein. The risks to birds likely to be precipitated by encroachment into the globally significant IBA on the Cache River and potential for impacts to state and federally listed species demand a cautious and rigorous approach to the permitting of Clean Line in these areas. We believe it is possible to build clean energy resources while simultaneously protect and conserve key habitat areas, but the choices made in the permitting and oversight of the project will determine the ultimate success of this endeavor. We thank you for the opportunity to comment on this application and appreciate your consideration of these important conservation issues.

Sincerely,

A handwritten signature in black ink, appearing to read "Brett Kincaid", with a large, stylized flourish at the end.

Brett Kincaid
Executive Director
Audubon Arkansas