Energy demand and consumption is increasing in the U.S. Technological advances in energy development, such as the hydraulic fracturing of shale for oil and gas, have increased the ability to produce more of our energy domestically. The move toward energy independence has increased interest in development of renewable energy sources, which grew an average of 5 percent per year from 2001 to 2014, and comprised 9.8 percent of the total domestic energy consumption in 2014. Increased interest in renewable energy and energy self-sufficiency continue to provide federal and state wildlife managers with challenges in balancing energy demands while conserving the nation’s natural resources; both high national priorities.

Energy development and the construction of the associated transmission infrastructure convert and fragment native habitats, imperil priority wildlife travel corridors, and affect water quality and quantity, providing new challenges for state fish and wildlife agencies in managing public trust resources. The development of traditional sources of energy can result in significant decrease of both habitat quantity and quality. The current scale of development has the potential to affect entire species and not just populations. For example, impacts of natural gas and oil development throughout the range of the greater sage grouse led to the largest coordinated conservation plan between state and federal governments in our nation’s history. Natural gas burns cleaner than coal, but hydraulic fracturing requires tremendous amounts of water, and the disposition of the contaminated water is problematic. The U.S. cannot fully transition to renewable energy sources for decades, so our nation will continue to rely on coal, oil, and natural gas. We must work together with the energy industries to find better ways of avoiding, minimizing, and mitigating its extraction on fish, wildlife, and their habitats.

Wind and solar power have exposed gaps in current policy that fail to account for the risks to wildlife habitat. There are still significant fatalities of bats from turbines, birds are still being electrocuted by and colliding with power lines, and certain solar panels require significant water for cleaning. Development of all these energy sources should avoid, minimize or mitigate their impacts to wildlife. Biofuels have the potential to provide fish and wildlife habitat. However, widespread land conversion from native prairies to monolithic cornfields threatens the nation’s waterfowl, grassland songbirds, and upland bird species. In addition, nonnative, invasive plant species are increasingly being used as the source for production. The introduction and

**Actions:**

1. Develop intergovernmental policy that ensures that federal agencies will work with state fish and wildlife agencies to attain or sustain wildlife population goals while planning and developing energy and transmission projects.

*continued...*
encroachment of these plants into aquatic and terrestrial habitats is a very serious concern. We support thorough research and thoughtful discussion to address the impacts nonnative biofuel species have on wildlife and habitat. We encourage prudent development of renewable energy as part of our nation’s overall goals toward energy security. This will require federal land management agencies, state and federal fish and wildlife agencies, and state and federal regulatory agencies working cooperatively with the energy industry to avoid, minimize or mitigate the impacts to fish, wildlife and their habitats.

Integrate state wildlife agency expertise early in project planning. Energy development and transmission companies often collaborate among themselves and with federal agencies and state public utility agencies to negotiate critical project details. Executive orders and federal policies intended to make federal and state permitting more efficient have either not included coordination with state fish and wildlife agencies or coordination has been integrated too late in the process. Consequently, state fish and wildlife population objectives are not fully considered or addressed in many federal and state processes and are sometimes viewed as impediments to progress. State and federal wildlife, land management and utility regulatory agencies must work together with the energy companies to ensure that conservation of our country’s wildlife and their habitats is achieved when planning energy development and infrastructure. Early coordination between state and federal agencies and the energy industry will lead to conservation success only when the best available scientific information on wildlife and their habitats is incorporated while planning energy development or transmission.

Advancing the nation’s energy independence, while maintaining diverse and thriving wildlife populations, requires viewing energy development and wildlife management in a more integrated manner. Federal and state wildlife agencies should start integrating energy development considerations into their overall management plans on both public and private lands. This Administration should set a precedent for early, effective coordination among federal agencies, state agencies and energy sectors to integrate energy development that is compatible with natural resource conservation. This cooperative effort between all partners must include incorporating energy planning into public land stewardship, landscape-scale mitigation policies, resource management plans, and conservation actions on private lands.

2. Review existing science to develop more specific guidelines for the location of energy projects that avoid, minimize, or mitigate the potential negative impacts on wildlife.

3. Support legislation that would dedicate a portion of federal revenue from energy development on federal lands and waters to federal, state, and local agencies to mitigate the loss of fish, wildlife and their habitat from energy development.