

AVIAN PROTECTION

2021 ANNUAL REPORT



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AVIAN POLICY

Black Hills Energy maintains the Avian Protection Policy (APP) that senior management reviewed, approved and signed in 2011. This policy states all affected operations will:

1. Implement and comply with each comprehensive APP.
2. Ensure actions comply with applicable laws, regulations, permits and APP procedures.
3. Document bird mortalities and injuries, problem poles/lines and problem nests.
4. Provide information, resources and training to improve employee knowledge and awareness of the APP.
5. Construct all new facilities to avian-safe standards.
6. Retrofit or modify power poles where a protected bird has died or been injured. Modifications will be in accordance with APP.
7. Participate with public and private organizations in programs and research to reduce detrimental effects of bird interactions with power lines.
8. APP covers all affected operations including electric transmission and distribution, electric generation and coal mining.

INTRODUCTION

Social responsibility plays a central role in helping us fulfill our vision and mission. Environmental responsibility — including avian protection — is an essential component of this vision. Black Hills Energy has deployed an avian protection program (APP) for over 15 years. The first APP was developed for the Black Hills Energy Cheyenne electric business unit in 2005, and the program has expanded across the corporation. All Black Hills Energy business units are included in this report with the primary focus on electric utilities, power generation and coal mining activities. Due to the diversity of Black Hills Energy's operations, APPs were developed for each operation. Our APPs do not include our natural gas distribution operations in Arkansas, Colorado, Iowa, Kansas, Nebraska and Wyoming, although several Best Management Practices (BMPs) from APPs and state wildlife programs are followed to decrease likelihood of an avian incident. APPs are currently being developed for the gas business units. If an avian incident occurs in these areas, it is reported to U.S. Fish and Wildlife Service (USFWS). Black Hills Energy routinely evaluates construction-based impacts to protected species for all business units during construction planning and conducts avian surveying and monitoring when necessary to comply with all federal and state regulations.

The following activities implemented by Black Hills Energy reduce impacts to protected birds and promote awareness of avian protection:

- **Regulatory partnership:** Black Hills Energy builds and maintains strong relationships with federal and state agencies whose missions are to conserve, protect and enhance wildlife and their habitat for the benefit of all people.
- **Reporting:** Black Hills Energy reports all incidents to the USFWS from its electrical and gas operations in Colorado, South Dakota, Wyoming, Arkansas, Iowa, Kansas and Nebraska. Black Hills Energy separately tracks avian incidents from electric, mining, generation operations and nesting activities from all affected areas.
- **Nesting substrates:** Black Hills Energy works in conjunction with federal and state agencies to build and erect artificial platforms and relocate nests from powerline poles to more suitable habitats in our electric service territories.
- **Industry membership:** Black Hills Energy is an active member of the Edison Electric Institute's (EEI) Avian Power Line Interaction

Committee (APLIC). APLIC leads the electric utility industry in providing resources for avian protection while enhancing reliable energy delivery.

- **Design standards:** Black Hills Energy revised construction and avian-safe design standards on distribution structures to bring practices up to date with current industry standards. In 2017, the newly developed standards were finalized, published and effectively implemented throughout Black Hills Energy electrical operations. In 2021, electrical operations developed and implemented specifications for the osprey nest platforms.
- **Nonprofit partnership:** Black Hills Energy supports local nonprofit raptor rehabilitation services that provide rehabilitation services for Black Hills Energy operations as needed.
- **Program sustainability:**
 - o **Training:** Black Hills Energy provides all applicable employees with annual avian protection awareness training.
 - o **Document accessibility:** Black Hills Energy provides and updates the annual report, guidance material, company policy and the APP. These documents are made available on the company's internal website which is available to all employees. Documents are also made available to agencies upon request.
 - o **Goals:** Black Hills Energy establishes goals annually to improve the avian program and to address issues identified in the previous year.

Black Hills Energy strives to continually improve on avian protection activities that have not only increased the protection of migratory, threatened or endangered birds, but have raised awareness with our employees, customers and the public.

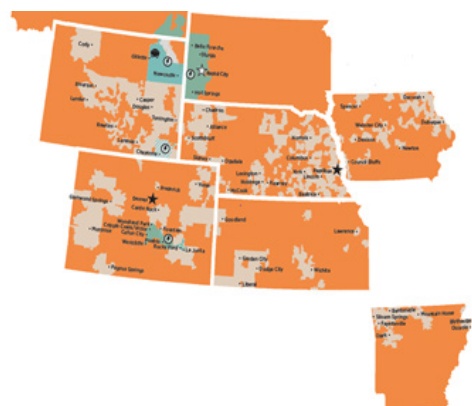


Figure 1: Map of Black Hills Energy's operations

AVIAN PROTECTION PLANS

PROTECTION PLANS

Avian Protection Plans include:

- Communication of the APPs
- Investigating and documenting avian incidents
- Evaluation of avian high use areas
- Nest management
- Permit requirements
- Avian protection measures for affected operations
- Periodic inspections
- Assessments

Black Hills Energy provides annual training to all affected employees including field personnel, supervisors, managers and engineering personnel. Prior to construction, contractors and operations are notified of risks to wildlife and potential delays to projects when nesting is occurring or the nest is occupied.

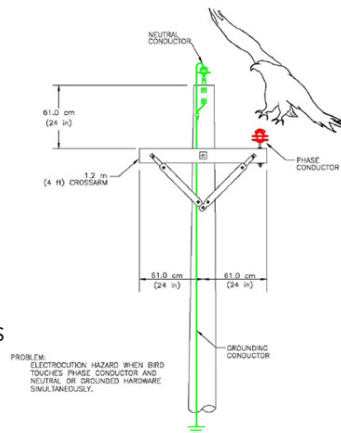


Figure 2, APLIC avian-safe design solution used for construction design and for training.

The annual employee training covers:

- Regulations — including the Migratory Bird Treaty Act (MBTA), the Bald and Golden Eagle Protection Act (BGEPA) and the Endangered Species Act (ESA)
- Protected species
- Black Hills Energy Bird Management Policy
- Avian protection measures for power lines
- Reporting and documenting incidents

Rescue and rehabilitation services

Black Hills Energy utilizes nonprofit organizations to rehabilitate birds when necessary and accessible. Typical services include:

- Assistance with adverse avian interactions
- Onsite incident investigation and reporting
- Consultation for retrofit of equipment design to

minimize future interactions

- Handling birds after negative interactions
- Removal/movement of nests as needed
- Species identification

Avian Power Line Interaction Committee Membership

Black Hills Energy is an active member of the Avian Power Line Interaction Committee (APLIC). APLIC leads the electric utility industry in protecting avian resources while enhancing reliable energy delivery. Black Hills Energy environmental services personnel attended a two-day virtual APLIC closed business meeting in March 2021.

Raptor-safe power line construction

Black Hills Energy builds all new power lines to raptor-safe standards. New line construction follows Black Hills Energy transmission and distribution standards. APLIC guidelines or other avian-safe designs may be used on a case-by-case basis if Black Hills Energy's standards are not adequate or other cost-effective, avian-safe designs are available. All Black Hills Energy's electric operations perform proactive retrofits of structures wherever issues are identified. Opportunities for retrofits are identified during line patrols and included in ongoing maintenance activities. This improves system reliability and reduces impact to protected species.



PROTECTION PLANS

Nest management activities

Electric utility structures provide nesting substrates for some bird species including, but not limited to, osprey, eagles, owls, hawks, ravens and kingbirds. Nests may be located on distribution and transmission poles as well as substations. Depending on where nests are located, they may pose a fire, safety, power outage or bird electrocution risks. Nest management is conducted to minimize risks associated with bird nests on electrical equipment. Management actions include trimming nest materials, removing nests or relocating nests to platforms installed on or near utility structures. Relocating nests to platforms provides nesting sites for protected species while minimizing risks of electrocution, equipment damage or power outages. For decades, Black Hills Energy electric operations have constructed nest platforms and boxes to aid populations of sensitive raptor species including osprey, peregrine falcon, owls and kestrels.

PUBLIC AWARENESS ACTIVITIES

Black Hills Energy APP webpage

Environmental services maintains a company webpage that can be utilized by operations as a resource for information on the Bird Management Policy, annual reports, APPs, field reporting instructions, published APLIC resources and regional contacts.

Avian Field Guide

Environmental services developed an Avian Field Guide to assist field operations in the proper identification of impacted species. The guide also includes operations-specific contacts to report avian interactions. These are made available electronically and accessible in the field via devices carried by operations personnel.

Employee newsletter

Black Hills Energy's employee newsletter, E.Connections, is used to highlight our avian protection initiatives.



BUSINESS UNIT UPDATES



BLACK HILLS ENERGY BUSINESS UNIT UPDATES

Black Hills Energy Electric Operations

Black Hills Energy promotes avian protection by providing annual employee training, investigating impacted species during monthly power line and substation inspections and, if necessary proactively retrofitting existing power line structures during operations and maintenance (O&M) activities. Additionally, structures involved in avian fatalities are fitted with avian protection measures. All new structures are designed to be avian safe.

Black Hills Energy Colorado Electric

Black Hills Energy Colorado Electric (COE) Operations initiated avian protection measures in 2006 and continue to support local protection efforts. COE and the Colorado Parks and Wildlife (CPW) have constructed osprey-nesting platforms in Pueblo, Penrose, Florence, Rocky Ford and Westcliffe. In 2013, platforms were constructed near the Nature and Raptor Center. In 2014, six perches were installed at the Pueblo Reservoir to provide a platform for birds of prey to hunt and control the prairie dog population within the park. The nesting platforms have been beneficial to the osprey as their population has increased in the Pueblo area. In 2019, an additional nesting platform was constructed near the Pueblo Reservoir and a raptor nest was successfully relocated to a newly installed nesting platform in Canon City. Most recently, COE installed six hunting perches for the osprey in Pueblo.

- COE averages four days to complete a retrofit with some completed in less than one day.



Black Hills Energy has a long history of protecting avian species through nest management, positive relationships with agencies and improving systems when issues are identified. Black Hills Energy has installed 24 nesting platforms to provide an alternative nesting substrate for osprey and eagles. Nineteen of these platforms remain active and have birds returning year after year.



BLACK HILLS ENERGY BUSINESS UNIT UPDATES

Black Hills Energy South Dakota Electric (BHP)

In August 2021, Black Hills Energy, in partnership with South Dakota Game, Fish and Parks (SDGFP), rescued an osprey entangled in bailing twine near one of our platforms at Canyon Lake in Rapid City, South Dakota. In November 2021, Black Hills Energy moved a nest near Victoria Lake Road and Pactola Lake. Most recently, a tenacious osprey was working to build a nest on a distribution line at the Executive Golf Course in Rapid City. Black Hills Energy crews came out and erected a nest platform. The osprey took to the platform and continued building the nest there.

Black Hills Energy investigated installing nest deterrents on every structure within one-quarter mile of Pactola Lake due to high osprey activity. This effort was put on hold due to cost.



Black Hills Energy Cheyenne Light, Fuel and Power (CLFP)

In 2010, Black Hills Energy CLFP developed a Wyoming-specific Avian Protection Policy (APP). In 2016, following the acquisition of SourceGas Utilities, the Wyoming APP was expanded to include new natural gas operations in Cody, a new natural gas transmission pipeline in Gillette, and natural gas transmission and distribution systems throughout the state. CLFP developed and is using an avian fatality tracking app for company tablets and phones that makes it easier and quicker to respond to fatalities and allow for better tracking of areas of concern within the system. The group is also finalizing a GIS mapping layer which identifies if existing system infrastructure is compliant with current APLIC standards to help determine locations to and proactively retrofit equipment. This avian fatality and power pole tracker mapping system is actively used by environmental services and operations.



Black Hills Energy Gas Operations

Avian protection plans have not been developed for Black Hills Energy gas transmission and distribution operations. USFWS agencies are contacted if there are any negative interactions with protected species from construction-related activities. Some of our construction projects require endangered species reviews that include birds. An example would be burrowing owls nesting in the path of a natural gas pipeline installation. In this instance, we would mow and/or till the path prior to the nesting season to ensure the burrowing owls did not nest in the construction area. Alternatively, the pipeline path could be altered or construction activities would be avoided in this area until nesting is completed.

Black Hills Energy Generation Operations

APPs have not been developed specifically for Black Hills Energy Generation. Avian incidents are less prevalent at power generation facilities, but when negative interactions with protected bird species occur on or around the generation facilities, the USFWS agencies will be contacted for guidance and reporting. Several of the business units have implemented pigeon control measures intended to reduce the draw of raptors to the facilities, and in turn, reduce the potential for negative interactions of raptor species and facility equipment. The combination of facility designs, control measures and monitoring have effectively prevented negative interactions with protected bird species. This is demonstrated at the following facilities: Pueblo Airport Generating Station (PAGS), Neil Simpson Complex (NSC) and Cheyenne Prairie Generating Station (CPGS).



WIND ENERGY FACILITIES

COLORADO WIND FARMS

Prior to siting each facility, Black Hills Energy Colorado Electric performed extensive bird and bat surveys that confirmed the wind farm location posed minimal impact to protected species. The results have been detailed in previous annual avian reports. The study revealed that eagle presence in the area is very though, and thus any impacts to eagles would be minimal and would not constitute the need to pursue an eagle-take permit. Plans are underway to develop eagle conservation efforts for the windfarms and seek eagle-take permits for liability purposes.

Busch Ranch Wind Energy Facility (BRWE)

On Oct. 16, 2012, Black Hills Energy Colorado Electric began generating electricity from its 29-megawatt Busch Ranch Wind Energy facility. The facility consists of 16 1.8 megawatt wind turbines with 100-meter diameter rotors and is located approximately 19 miles east of Walsenburg, Colorado, on the north side of Highway 10.





Peak View Wind Energy Facility

The Peak View Wind Energy Facility (PVWE) consists of 34 1.79-megawatt capacity wind turbines with 100-meter rotors. The facility is located approximately 17 miles east of Walsenburg, Colorado, on the south side of Highway 10.

Black Hills Energy obtained ownership and began operation of the PVWE in November 2016.

Busch Ranch II Wind Energy Facility

The Busch Ranch II Wind Energy Facility (BRWE II) consists of 27 2.2-megawatt capacity wind turbines with 120-meter diameter rotors, installed at a height of 80 meters. The facility is located approximately 20 miles east of Walsenburg, Colorado, and located just east of the Busch Ranch Wind Farm. BRWE II went online November 2019.

IOWA WIND FARMS

Northern Iowa Windpower Facility

In February 2019, Black Hills Energy purchased the Northern Iowa Windpower Facility located near Joice, Iowa. The wind farm consists of 89 900-kilowatt wind turbines located in and around cropland.

An APP has been developed for Iowa facilities. The plan provides guidance to mitigate the impact of company operations on protected bird species. The plan applies to Black Hills Energy Iowa Generation and includes all activities that may impact birds.

A Bird and Bat Conservation Plan (BBCS) was developed for the facility to identify the reasonably foreseeable threats to avian and bat species and to develop effective response measures to avoid or minimize these potential impacts. An Eagle Conservation Plan (ECP) was also developed for the facility for potential submittal with an eagle-take permit application if necessary. An ECP and eagle-take permit are conservative measures Black Hills Energy is considering to mitigate potential for eagle fatalities at the windfarm.

WYOMING WIND FARMS

Corriedale Wind Energy Facility

Black Hills Energy completed construction and began commercial operation of a wind farm west of Cheyenne, Wyoming, at the end of 2020. The wind farm is comprised of 21 wind turbines with a generating capacity of 52.5 megawatts.

Black Hills Energy's consultant, Ecology and Environment Inc. (E&E), conducted year-long surveys for the proposed Cheyenne wind farm project starting in January 2016 and ending in December 2017. These studies included avian point count surveys, eagle surveys, raptor nest surveys, eagle nest surveys, bat acoustical surveys and non-avian special status species as well. Due to wind farm layout alternations to avoid areas of highest eagle activity, eagle surveys started again and continued up until the construction of turbines began in July 2020 to ensure adequate survey coverage for the project.

Black Hills Energy developed an eagle conservation plan and submitted this along with an eagle-take permit application to the USFWS in 2021. They have received our application and it is currently under review. The process could last multiple years before being finalized but is the most practical way to ensure the eagle fatality risk at the facility is properly mitigated.

WYODAK MINE

As part of its mining operations permit, the Wyodak Mine maintains a USFWS reviewed and approved Migratory Birds of High Federal Interest and Raptor Monitoring and Mitigation Plan. These documents are intended to minimize and mitigate impacts to migratory birds protected by the MBTA and the BGEPA.

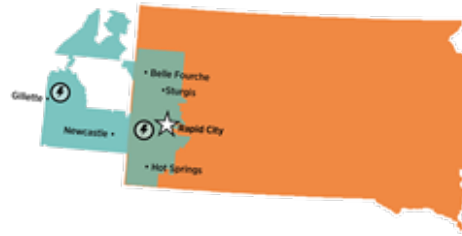
The Wyodak Mine has installed five nesting boxes over the last several years to discourage nesting within equipment and provide an alternative nesting substrate for barn owls. There are currently four nesting boxes deployed with one box occupied in 2021. This box produced two fledgling great horned owls.



BLACK HILLS ENERGY AVIAN INCIDENT STATISTICS

When comparing the number of avian incidents per electric business unit, it is important to consider miles of line and the surrounding habitat.

BHP



Cheyenne

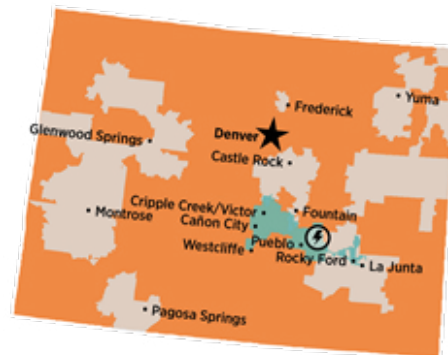
- 72,500 customers
- Habitat: heavily forested
- Over 3,800 miles of electric system

CLFP



- 172,800 customers
- Habitat: urban, grassland
- Almost 1,400 miles of electric system

COE



- 283,400 customers
- Habitat: urban, grassland, desert
- Almost 3,800 miles of electric system



GOALS UPDATE

As with many management systems, progress and goal achievement occurs over time. Black Hills Energy has completed all goals previously set and is evaluating the next set of goals that will continue to mitigate avian interactions. A list of completed goals includes:

1. Retrofit response times: Black Hills Energy has significantly reduced the time needed to retrofit structures associated with negative interactions from 149 days to 6 days (2017 data), with the typical amount of time for most retrofits being same day or next day. Complicated retrofits require additional time for planning and execution.

2. Distribution standards: Black Hills Energy has developed and implemented distribution standards. Of note, the new standards now require use of fiberglass crossarms. Over time, this change is expected to significantly reduce the number of avian interactions.

3. Avian reporting mobile app: Successful design and implementation of a mobile app used to collect information on avian incidents in CLFP.

4. Avian procedures: An avian procedure documenting seasonal restrictions and buffer zones for eagles, raptors, northern long-eared bats and MBTA species was created. Last year's goal was initially to develop the procedure for Black Hills Energy electric, however, the procedure was expanded to encompass all business units.

5. Corriedale: An eagle conservation plan and eagle-take permit was submitted to the USFWS in early 2021.

6. Platform spec sheet: Worked with operations to write a spec sheet for osprey platform installation. This spec has been completed and is used for every osprey platform installation.

2021-2022 GOALS

1. Report retrofit information (proactive and reactive) and costs consistently and accurately:

In 2018, Black Hills Energy developed a process to consistently evaluate and document all retrofit activity and associated costs of retroactive and proactive retrofits by integrating avian retrofit information into company GIS systems. The process underwent development testing and is now scheduled to be implemented after the GIS team can schedule a companywide upgrade.

2. Avian reporting mobile app: Work with the GIS team to implement the application usage in Colorado and South Dakota following the documented success in Cheyenne, Wyoming. The application is designed to collect information on avian incidents for electrical operations.

3. APPs: Continue to review and update all avian plans for outdated information including contact information. Develop an APP for the gas states and generation facilities that address the endangered species encountered during gas pipeline construction.

4. Colorado windfarms: Develop, finalize and submit eagle conservation plans and eagle-take permit to USFWS for Colorado Windfarms.

5. Raptor Center of Pueblo: In coordination with the Raptor Center of Pueblo, evaluate and develop a project for the center to promote avian protection and pursue funding from APLIC and/or internally.

6. Wildlife risk assessment: Complete assessment with EDM (Black Hills Energy's third-party consultant) of electric utilities to determine areas and configurations in the company that have highest potential for avian fatalities.

8. Sage grouse mitigation bank: Work with Bureau of Land Management (BLM) to create a sage grouse mitigation plan in 2022 for construction planned in sage grouse priority habitat. Utilize this experience to investigate procedure for setting up a long-term mitigation bank.