



Enel biodiversity projects				
Country	Main projects by technology	Activities	Objective	IUCN Red List ¹ species affected by projects
Italy	Hydroelectric - LIFE12 BIO/IT/000231 Project – AQUALIFE "Innovative and easy-to-use system of indicators for assessing the biodiversity of groundwater-dependent ecosystems" (Abruzzo)	The project activities, coordinated by the National Park of Gran Sasso and Laga Mountains, provide the development of a software application to measure the loss of biodiversity in groundwater dependent ecosystems (sources, aquifers, river beds) with different impact categories (For further details http://www.aqualifeproject.eu/index.php/it/)	Development of biodiversity metrics and indicators	n.a.
Italy	Hydroelectric - LIFE15NAT/ IT/000823 IdroLIFE Project "Protection of natural resources and biodiversity in Verbania - Cusio Ossola (VCO)" (Piemonte)	Restoration of the continuity of the aquatic corridors of some stretches of the Toce River and San Bernardino River; construction of a publicly owned incubator aimed at conservation actions of the target species of project; improvement of the conservation status of fish species of European interest (Marble trout, pigo, Savetta, scazzone and smallpox); conservation of freshwater prawns; reduction and control of the spread of invasive alien species (torpedo, catfish, acerin, sun perch, carassium, exotic salmonids) (For further details https://idrolife.eu/il-progetto/)	Restoration of habitats and protection of species affected by hydroelectric plants	Salmo marmoratus (LC) Rutilus pigus (LC), Chondrostoma soetta (EN), Cottus gobio (LC) Telestes muticellus (LC), Austroptamobius pallipes (EN)
Italy	Infrastructure & Networks – Conservation of birds of prey	In addition to the LIFE project for the conservation of the Egyptian vulture, in the Tepilora park in Sardinia E-distribution has made changes to its plants (e.g. the replacement of some switches and the insulation of the conductors near the supports of the electric networks) to contribute to the success of the reintroduction program of Bonelli's Eagle	Protection of protected species against the risk of electrocution	Egyptian Vulture (EN) Neophron percnopterus majorensis (EN)
Spain	Infrastructure & Networks - Measures for the conservation of the sea jay (Catalogna)	Installation of artificial nests to support the nesting populations in the National Park Aiguamolls of L'Empordà. GPS tracking and ecology study to make present and future conservation measures more efficient	Protection of protected species against the risk of electrocution	Coracias garrulus (LC)
Spain	Hydroelectric - Conservation of protected species of chiropractors in Endesa hydroelectric plants (ENDESABATS)	Scientific research on the ecology of certain species of chiropractors at hydroelectric power stations in Catalonia, Aragon and Andalusia. Monitoring of population groups, during the year, in some places of interest	Research	Myotis capaccinii (VU), Rhinolophus hipposideros (VU), Rhinolophus euryale (NT), Myotis bechsteinii (NT) Miniopterus schreibersii (NT) Nyctalus lasiopterus (NT) Barbastella barbastellus (NT)
Romania	Infrastructure & Networks - EU Project "Bridging the Danube Protected Areas towards a Danube Habitat Corridor, DANUBE parks CONNECTED"	Project, part of an EU INTERREG programme (Transnational Programme), which aims to restore and maintain the ecological continuity of the Danube River ecosystem. In particular, E-distribuzione Dobrogea has collaborated in the installation of devices against the danger of collision for bird life due to the presence of power lines crossing the Danube (For further details http://www.interreg-danube.eu/approvedprojects/danubeparks_connected)	Protection of birdlife against the risk of electrocution	n.a.
Romania	"Birds of the city" Project (Bucarest)	The Natural Park of Văcărești, in the urban area of Bucharest, is the first designated urban park in Romania. Enel Romania, in the role of financier, has supported a program of study and monitoring of the local avifauna. The ecological behavior of more than 100 species has been documented as well as the identification of species not thought to be present in the park (For further details https://parcnaturalvacaresti.ro/en/projects)	Study and monitoring of local birdlife	n.a.

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Brazil	Wind power – Monitoring of birdlife and bat species at the wind power plants of Cristal Wind, Fontes dos Ventos, Serra Azul, Modelo, Delphina, Cristallandia, Morro do Chapéu Sul	Periodic (seasonal) evaluation of number, richness and diversity of species on adjacent areas not affected by the operation of plants (control areas) in the proximity of the plants	Monitoring for prevention of the risk of collision with wind turbines	Penelope jacucaca (VU), Natalus macrourus (NT) Lonchophylla bokermanni (EN)
Brazil	Solar – Monitoring of herpetfauna, mesophaga (mammals), hymenoptera at the solar plant of Ituverava	Studies, through observations, of the direct and indirect effects of solar systems on reptiles, amphibians, small mammals and hymenoptera	Study for determining the indirect and direct impacts	Leopardus tigrinus (VU), Lycalopex vetulus (VU) Chrysocyon brachyurus (NT)
Brazil	Hydroelectric – Monitoring of fish and macrophyte species	Analysis of fish and macrophyte populations, in different seasons and depths, upstream and downstream of plants	Monitoring for the verification of possible changes due to the operation of the plant	n.a.
Chile	Geothermic – Monitoring of wildlife and vegetation at the Cerro Pavellon plant	Study of the ecological patterns of the Andean fauna and specific monitoring on native species (for example vigogna, viscaccia), recovery and relocation of cacta species	Monitoring of ecological status of wildlife surrounding the plant	Vicugna vicugna (LC), Azorella compacta (VU), Lagidium viscacia (LC)
Chile	Wind power – Monitoring of birdlife at the Renaico, Canela, Los Buenos Aires, Talinay Oriente, Valle de los Vientos, Sierra Gorda Este plants	Periodic monitoring for the detection of collisions with plants in operation	Monitoring for prevention of the risk of collision with wind turbines	n.a.
Chile	Hydroelectric – Protection measures for amphibians at the Los Condres plant	Study on the biology of a species of frog and development of tools for genetic analysis and determination of health threats (ranavirus and chitridomycosis)	Health prevention study for endemic species	Aldodes pehuenche (CR)
Chile	Hydroelectric – Reforestation with native species at the Ralco plant	700 hectare reforestation involving the local indigenous community	Habitat restoration	Nothofagus obliqua (LC), Nothofagus alpina (LC), Nothofagus dombeyi (LC)
Chile	Thermal – Monitoring of marine mammals and birdlife in the coastal area of Punta Patache at the Tarapacà power plant	Evaluation of birds and mammals observed in the marine environment of Punta Patache (wealth, size and distribution of species); analysis of the conservation status of recorded species and potential arising from the plant's operation	Monitoring of ecological status surrounding of birdlife the plant	Marine otter (EN), Spheniscus humboldti (VU), Larosterna inca (NT)
Chile	Solar – Conservation of reptile habitats at the Chanares plant	Semestral monitoring of the use of shelters built for the benefit of local reptile species	Habitat restoration	n.a.

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Colombia	Hydroelectric – Large-scale ecological conservation programme at El Quimbo plant	<ul style="list-style-type: none"> Study of the biology and population structure of the aquatic fauna of the Magdalena river basin; Identification of migratory and semi-fish routes; Characterization and recovery of epiphytes (vascular and non-vascular) in the construction area of the pelvis; Relocation and related growth monitoring in recovery areas; Reforestation with species typical of the dry tropical forest 	Natural restoration	Pteronotus parnell (CR), Sapajus apella (CR), Pimelodus grosskopfii (CR), Ichthyoelephas longirostris (EN)
Colombia	Hydroelectric – Biodiversity assessment programme in the area surrounding the Guavio power plant	Biodiversity assessment in different scenarios (normal conditions and different degrees of impact) and definition of conservation strategies for priority species with the active participation of local communities	Biodiversity characterization for conservation strategies' development	Allobates juanii (CR), Aniba sp.(CR), Iriartea deltoidea (EN) (Juglans neotropica (EN) (Ocotea cymbarum) (EN), (Mazama rufina) (EN), (Cedrela odorata (EN), Cupania americana (EN) Ocotea cymbarum (EN)
Colombia	Thermal – Recovery of wetland at the Cartagena power plant	Project, launched in 2006, for the recovery of the ecosystem of mangroves and lagoon adjacent to the plant involving local communities	Habitat restoration	Conirostrum bicolor (NT)
Peru	Wind power – Monitoring of birdlife and wildlife in the area surrounding Wayra plant	Monitoring of possible collisions of birds with wind turbines, monitoring of wildlife in the buffer zone of the nearby national reserve of San Fernando (reptiles, rodents)	Monitoring of birdlife and wildlife	P. angustidigitus(EN), C. adspersa (VU)
USA	Wind power – Study of ecological pattern of grassland Tetraon at the Cimarron Bend plant	Through GPS transmitters, capture and mark of 30 specimens of grassland Tetraon (Tympanuchus pallidicinctus) observed around the plant. Data relating to movement are analysed to assess possible displacement effects of the habitat due to the plant's operation	Assessment of indirect and direct impacts	Tympanuchus pallidicinctus (VU)
USA	Wind power – Study and mapping of the Bald Eagle in the Osage Plant (Oklahoma)	Through GPS/GSM telemetry systems, capture and mark of 10 specimens of bald eagle (haliaeetus leucocephalus) wintering in the area affected by the plant. From the data received were determined range and movements to develop presence maps and evaluate the risk of interference due to the operation of the plant	Assessment of indirect and direct impacts	Haliaeetus leucocephalus (LC)

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