Promoting Decarbonization and Biodiversity

NTT COMWARE

For all types of industries concerned with growing economically while reducing their environmental footprint, we will apply the various technologies we have developed to becoming nature positive, which maintains and restores biodiversity.

Wind power is a driving force behind decarbonization.

What can we do to coexist in harmony with wildlife?

Bird strikes on wind turbines have become one of the major issues in recent years.

Understanding the behavior of birds that share the wind and coexisting with them is important to promote decarbonization.

NTT Comware will solve these issues using ICT and provide strong support for businesses that promote sustainable activities.

The catalyst for this was collaboration with a partner in Europe, a leader in the field of renewable energy.

We came to see the challenges in advanced business operations and biodiversity in solar and wind power generation that leading European and U.S. operators were facing.

We have multi-AI that combines different AI:
AI that recognizes still images, and machine learning technology that we have developed as "SmartMainTech®", a maintenance and inspection solution for social infrastructure, as well as technology that can accurately detect moving objects, which we have tested in more than 100 demonstrations for more than 10 years.

One such example is our non-stop blade inspection technology, which allows maintenance of wind turbines by filming them while they are in operation

NTT Comware has embarked on a three-step, step-by-step development process to

prevent bird strikes.

Step 1

We have established technology to detect, automatically track, and capture birds flying over a wider area by combining a wide-angle camera, a PTZ camera, and radar for ships. This enables us to capture birds flying in the distance and determine their distance from wind turbines and the number of birds.

Step 2

We are applying the image AI technology we have developed in the social infrastructure field.

This will support our aim to establish technology to instantly visually identify and distinguish distant bird species and to predict their flight patterns.

Step 3

We will establish control technology that can promptly take appropriate actions, such as issuing an aversive sound and shutting down wind turbines. This will lead to the prevention of bird strikes, thereby protecting wildlife and furthering decarbonization.

We aim to develop the wind power generation business and coexist with wildlife.

In the future, we will promote the introduction of the system to airports, steel towers, and high-rise buildings.

We will contribute to the realization of nature positive social infrastructure by highlighting a wide variety of ecosystems.

Development of social infrastructure and environmental conservation activities are inextricably linked. We will strive to solve these issues by refining our technological capabilities based on our past efforts and know-how.

We will continue to develop a proactive approach for a wide variety of industries, including construction, tourism, and urban infrastructure.

NTT Comware will continue to take valuable actions to promote a sustainable world where human social activities are compatible with preservation of the natural

environment and living creatures.