

BNZ

BNZ 2023
Report

Powering Europe
to a greener future

Tree Management Policy

The logo for BNZ, consisting of the letters 'BNZ' in a bold, black, sans-serif font. The letters are closely spaced and have a slight shadow effect, giving them a three-dimensional appearance. The 'B' and 'N' are connected at the top, and the 'Z' is positioned to the right of the 'N'.

BNZ

Tree Management Policy

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1. About BNZ

BNZ is an independent renewable energy power producer, with strong local expertise in Europe. The company is part of the portfolio under management by Glennmont Partners from Nuveen, one of Europe's largest renewable energy fund managers.

BNZ is managing the whole lifecycle of its plants from securing land and grid connections, through construction and continuing into operation. We have strong proven expertise and strive to work closely with local communities throughout development and into operations. Our professional team actively develops and manages a diverse pipeline of projects spread across Italy, Portugal and Spain.

The rationale for having a dedicated Tree Management policy is that BNZ has accountability for the end-to-end activities occurring across our pipeline of projects and throughout the lifecycles of our individual projects. We believe that our responsibilities include managing long-term risks through active ownership practices that are sensitive to tree management considerations.

The scope of this policy covers all clean energy infrastructure that BNZ develops or manages. The objectives and values of our tree management policy are applicable throughout our development, management, and operational processes.



2. Introduction

Forests and trees play a crucial role in absorbing carbon, protecting water systems, providing shelter to fauna and providing recreation and wellbeing. However, increased economic activity and population growth have led to deforestation becoming a major global problem. Biodiversity loss and climate change are closely related issues that require urgent attention. As the world moves towards a cleaner and more sustainable energy system, photovoltaic solar plant projects are becoming more popular for generating clean electricity. Yet, trees located near solar panels can significantly reduce the efficiency and performance of these plants, hindering their potential contribution to the energy transition.

To address this issue, BNZ has developed a comprehensive Tree Management Policy that balances the imperative to maximize renewable energy production with our commitment to community and environmental interests including biodiversity conservation. While tree removal can help increase energy production in solar projects, it is not without drawbacks, including soil erosion, changes in local ecosystems, loss of wildlife habitat, habitat loss and fragmentation and potential social and governance implications. Therefore, our goal is to meet environmental standards and contribute to the energy transition while also benefiting local communities and preserving natural resources for future generations.

In addition, the Tree Management Policy outlines essential practices for maintaining a sustainable and eco-friendly environment during the construction, operation, and maintenance phases of our projects. It also requires the replanting of all areas disturbed during construction and after decommissioning.

At BNZ, we prioritize following the mitigation hierarchy, which includes avoiding, mitigating, restoring or rehabilitating, and ultimately offsetting or compensating for any potential harm. Our goal is to carefully choose the optimal location for our solar farm to minimize deforestation and protect the environment. By making informed decisions, we strive to avoid any significant harm to biodiversity and ensure that local flora and fauna are not negatively impacted... BNZ is committed to support local tree and flora species in compliance with regulation.

3. ESG Concerns

As environmental, social, and governance (ESG) considerations become increasingly important for businesses, including BNZ, it is crucial to prioritize a tree management policy that aligns with these principles. It is important to consider the social and governance implications of tree removal. This includes assessing the impact on the local community, such as the loss of income from tree harvesting, and ensuring that the policy is fair and equitable for all stakeholders.

To minimize negative effects on local biodiversity and ecosystems, the policy should prioritize planting native tree species that are well-suited to the local environment, rather than artificial monoculture forests with non-native or invasive species. Additionally, diverse ecosystems with a mix of tree species, shrubs, and seasonal crops should be prioritized by protecting existing forests over planting new ones. Any new planting should be done in areas where it will provide the greatest environmental benefit without interfering with water supplies. Informed decisions should be made based on stakeholder engagement, including native communities, in collaboration with a local biodiversity consultant.

Forests and trees provide many ecosystem services, including wood raw material, habitats for many species, food, and recreation, as well as carbon sequestration, water circulation, purification, and humidity retention, and support for soil formation and retention, its protection and pollination, and nutrient cycling. BNZ recognizes the importance of forests in maintaining biodiversity and a sustainable business model. To further demonstrate its commitment, BNZ has corresponding KPIs to justify this policy and track progress towards its sustainability goals.



As BNZ develop and this policy, it is essential to incorporate parameters from the United Nations Sustainable Development Goals (SDGs). Specifically, the focus is on Goal 15: Life on Land, which aims to protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss.



4. Preservation

Preserving the natural environment is a top priority in the development of solar photovoltaic plants. To minimize the impact on the local ecosystem, the following actions and considerations should be taken:

- **Site Selection:** Ideally, solar PV power plants should be situated in open or barren areas (such as deserts or semi-desert regions) or on sites with previous disturbances, like farmland, industrial land, abandoned land, or existing transportation and transmission corridors. When selecting a site for a solar photovoltaic plant, conduct an environmental impact study and consult private data sources like IBAT. Carrying out environmental impact assessments (EIAs) and obtaining approval from relevant regulatory authorities ensures compliance with local environmental regulations and standards, thus minimizing potential negative impacts on the environment.
- **Impact Assessment:** Before making a decision on tree removal, an impact assessment should be conducted to evaluate the potential impact on the local environment. This assessment should consider local regulations and permits related to tree removal and environmental impacts.
- **Wildlife and Habitat Protection:** The potential impact of tree removal on local wildlife and habitats should be considered, and measures taken to minimize disruption and displacement. This can be achieved by using private data sources like IBAT to ensure awareness of any potential species and habitats present near the site selection. Cross-reference the information from IBAT with the specific EIA for the site. Consultation with local stakeholders, including community groups and environmental organizations is also essential for informed decision making.

Tree Selection: Careful consideration should be given to which trees should be removed and which should be preserved following the advice from local authorities' technicians. They will define which trees we can remove and replace.

5. Best practices

To ensure safe and sustainable tree removal, it is crucial to follow best practices to lead to safe, efficient, and environmentally responsible tree removal, while minimizing the impact on the surrounding ecosystem. For tree removal, several important practices should be considered:

5.1. Previous considerations:

- **Safety:** Safety should always be a top priority when removing trees. Before starting the removal process, a site assessment should be conducted to identify any potential hazards or risks associated with the removal process and a corresponding safety plan should be developed and followed for each removal job. The plan should include information on how to mitigate risks such as falling branches or tools, and how to handle emergencies such as injuries. Proper safety equipment such as gloves, hard hats, safety glasses, and safety boots should be worn by workers during the removal process. It is also important to hire trained professionals with experience in the field to ensure that the removal is done safely and efficiently and use specialized and accredited companies that can cut down existing trees and clean up resulting debris.
- **Timing:** Timing is an essential consideration when it comes to tree removal. It is important to consider the season, weather conditions, and growth cycle of the trees before starting the removal process. For instance, during the spring, many bird species nest or reproduce, so removing trees can cause harm. Therefore, it's recommended to avoid tree removal typically from March to July in the geographies where BNZ is active. Similarly, removing trees during the winter when the ground is frozen can make the removal process difficult and dangerous.
- **Tree health:** Trees that are already in poor health or at risk of disease may need to be removed to prevent safety hazards and further environmental damage. It is important to consider the health of the trees before removing them and take necessary precautions to prevent the spread of disease or pests.
- **Environmental considerations:** When it comes to tree removal, it is important to consider the impact that the process may have on the surrounding ecosystem. To protect sensitive areas such as wetlands or watercourses, it is essential to set limits and restrictions on where trees can be cut down and stumps can be removed. For instance, if a tree needs to be removed near a wetland area, the removal area should be kept at an appropriate distance to reduce negative impacts on the sensitive ecosystem. Finally, it's essential to protect trees and shrubs that will not be affected by the construction work and avoid unintentionally harming them.
- **Felling techniques and stump removal:** Using appropriate felling techniques is crucial to prevent damage to surrounding trees, structures, and solar panels. For example, directional felling involves cutting a tree in a particular direction to avoid other trees or structures in the area. In cases where the tree cannot be felled in a particular direction, the use of cranes to carefully lower tree sections to the ground may be necessary. Complete removal of the stump is also essential to prevent regrowth and potential damage to underground infrastructure. It is important to use pruning techniques instead of cutting trees and to obtain authorizations in advance for cutting down trees with protected status.
- **Tree repurposing:** The plant waste generated during land clearing can be utilized for soil enhancement, while the remaining wood can be repurposed for a variety of applications, such as furniture, construction materials, or biomass energy production. By repurposing trees and wood waste, BNZ aims to minimize the environmental impact of its operations and contribute to the development of a circular economy that promotes sustainable resource use and waste reduction. This approach not only supports the conservation of natural resources but also fosters innovation in finding alternative uses for waste materials.

5.2 Supervision of measures:

- **Pre-Construction Planning:** Before any tree removal can occur, pre-construction planning should take place, including an environmental assessment of the area to determine the potential impact of tree removal on the local ecosystem. This assessment should consider factors such as wildlife habitats and biodiversity, and any endangered species in the area. A tree inventory

should also be conducted to identify which trees need to be removed and which can be preserved. Finally, a mitigation plan should be developed to minimize the negative impacts of tree removal. This plan should include measures to minimize erosion, protect water quality, and promote ecosystem restoration.

- **Tree species and invasive plant control:** Invasive species or those that are known to cause damage to solar panels, such as those with extensive root systems or large branches, may need to be removed to ensure sustainable land management. For instance, invasive eucalyptus trees in Europe, which were introduced for reforestation but are now harming biodiversity and increasing wildfire risks, may require removal. Prior to land clearing, an invasive species survey is essential to identify problem plants. Future control measures, potentially every 3-5 years, may also be necessary to maintain the ecosystem and prevent invasive plant spread. Detailed planning is key for successful solar array establishment and maintenance.
- **Soil Erosion Control:** Appropriate measures should be taken to prevent soil erosion, such as the use of retaining walls or erosion control blankets. For instance, if the site is on a slope, retaining walls can be used to prevent soil from sliding down the slope. The soil erosion control plan should outline the appropriate measures to be taken, based on the local topography and soil conditions. Maintenance is also essential, and this may include regular inspections of retaining walls or the replacement of erosion control blankets when they become damaged. Anti-tracking pads can also be installed and existing roads can be widened to make it easier to move equipment.
- **Land KPIs:** At BNZ, our land KPIs focus on promoting net positive climate and biodiversity outcomes. By monitoring and evaluating KPIs at key milestones, we ensure our actions align with our goals. Our KPIs encompass metrics such as protected area expansion, reforestation, and carbon sequestration. Through consistent monitoring and improvement, we aim to create a sustainable future while preserving biodiversity.



6. Improvement proposals and mitigation measures

Deforestation and erosion have the potential to negatively impact the landscape. Therefore, mitigation measures for tree removal should be taken into account. These measures are as follows:

- **Replanting:** Replanting trees is an important mitigation measure for managing forests as it helps restore the local ecosystem, mitigate the loss of wildlife habitats, and reduce carbon emissions. Choosing the appropriate species for the area and planting location is essential, considering factors such as climate and soil conditions. Regular maintenance of the replanted trees and vegetation, such as watering, weeding, and pruning, promotes healthy growth.
- **Habitat Restoration:** Efforts should be made to restore the local ecosystem and promote biodiversity in the area. For instance, habitat restoration may include adding birdhouses, bat and reptile boxes, or pollinator gardens. These measures can help promote the growth of native species and the return of wildlife to the area. The habitat restoration plan should outline how the restoration will be carried out and monitored. Ecological monitoring should also be conducted to track the success of the habitat restoration efforts and make necessary adjustments. For instance, if a particular species of bird is not returning to the area, the planting of additional trees may be necessary.
- **Perimeter Landscaping:** BNZ recognizes the importance of stabilizing soil, providing visual screening, and protecting the environment. Planting trees along the perimeter of a site located near a residential area can provide a visual screen and reduce noise pollution. The landscape plan should include specific details on species, location, number, type of planting stock, and anticipated timing for planting. Landscape contractors will be hired to install the plantings, and an inspector will monitor the landscaping plants to ensure that they are becoming well-established.

It is advisable to prohibit planting trees or shrubs within a 5-meter strip on each side of the panels to promote the delimitation of the green screen and vegetation. A multi-specific and multilayered composition of trees and shrubs, especially for the perimeter tree-shrub curtain, is preferred. It is important to choose wild and domestic tree species suitable for environmental restoration and mitigation interventions to improve tree resilience.

Proper maintenance of the perimeter landscaping is essential to promote healthy growth. A well-maintained landscape not only provides the intended benefits but also enhances the appearance of the site and improves its value. Therefore, it is crucial to provide proper care and attention to the perimeter landscaping to ensure its long-term sustainability.

7. Conclusion and commitments

BNZ's tree management policy reflects the company's commitment to sustainability and responsible environmental stewardship. The policy emphasizes sustainable practices that balance economic, social, and environmental interests. Replanting, selecting appropriate tree species, and conducting invasive species surveys are key components of the policy, which aims to minimize negative impacts. BNZ implements best practices for tree removal and mitigation measures to contribute to the preservation of natural habitats and the reduction of deforestation worldwide.

BNZ is committed to ongoing review and improvement of the tree management policy. As the field of sustainable forestry continues to evolve, the policy will be adapted to incorporate new knowledge and best practices. BNZ believes that transparent and meaningful engagement with stakeholders is essential in tree management planning, and respects traditional and multiple uses of lands, as well as the unique economic and cultural rights of local peoples.

To achieve the goal of climate-positive forestry, BNZ is committed to improving biodiversity and support local tree and flora species in compliance with regulation. BNZ utilizes and promotes sustainable forest and land management practices that help conserve biodiversity, soil, and water resources. Additionally, BNZ provides

compensation for the premature felling of trees and prioritizes using native tree species and avoiding invasive species in tree management.

BNZ welcomes feedback and input to help achieve sustainable tree practices. The company is committed to complying with all applicable legal and regulatory obligations in the countries where it operates and utilizing specialized and accredited companies for cutting down trees and cleaning up debris.

Specific investments are allocated to native species management in all BNZ projects, emphasizing the company's environmental commitments. As part of these commitments, detailed habitat loss internal studies are conducted from the onset of each project, facilitating the development of comprehensive environmental plans.



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