

Renewable Energy Transition

2024 Annual Report

Our Vision

The planet is facing the urgent, intertwined crises of climate change and biodiversity loss, which threaten both people and ecosystems. The Nature Conservancy (TNC) is committed to addressing both by accelerating the transition to clean energy—helping to power a future that supports a livable climate, healthy communities and thriving nature.

We are living through a critical decade. We must, at a minimum, triple renewable energy capacity globally by 2030 to be on track to reach net-zero greenhouse gas emissions by 2050. In this report, we share the progress TNC made in 2024 towards our goal of accelerating this clean, green, and equitable energy future. The <u>Clean Energy Transition Factsheet</u> summarizes our approach.

TNC is promoting science-based siting of renewables and policy, market and community solutions to drive a rapid and responsible transition. This is because a central challenge for tripling renewable energy by 2030 is the rapid pace of deployment required for the amount of new solar, wind, and transmission infrastructure needed, all of which require significant land and sea areas. This raises the potential for environmental and social conflicts that could slow progress. We need to go smart to go fast. Centering communities is core to our approach. The clean energy transition will move at the speed of public trust. At the heart of our work, we are integrating climate, conservation and community goals—the "3Cs"— into energy planning, policies and markets. TNC is partnering with community groups to ensure that diverse voices inform the clean energy transition and represent their needs. We are building coalitions to address key challenges and developing standards that align industry, community, and environmental goals.

2025 marks the midpoint of this critical decade of change. As we look to the year ahead, despite changing political landscapes and the need to pick up the pace, we remain optimistic that we can realize a rapid transition to renewable energy that benefits people, biodiversity, and the natural spaces we cherish. We look forward to working with you and our many partners to ensure these ambitious goals are met.

Sincerely,

Bruce McKenney, Global Director for Renewable Energy Jessica Wilkinson, Lead for North America Renewable Energy Deployment Team Elif Gündüzyeli, Europe Renewable Energy Program Director Anand Madhav Mishra, Project Manager - Renewable Energy, India



This year in numbers: Expanding our influence

"While global leaders must maintain the focus on phasing out fossil fuels, in parallel we need to act fast to triple renewable energy capacity before the end of the decade."

Jennifer Morris | Chief Executive Officer, TNC

Powering change with policy and action



Supporting the Now Deliver Change campaign for 133 countries committed to tripling renewable energy by 2030, calling for specific renewable energy targets in countries' Nationally Determined Contributions under the Paris Agreement



Informing policy for 27 EU Member States and 6 Western Balkan countries part of the Energy Community Secretariat to designate Renewable Energy Spatial Maps and Acceleration Areas fast-tracked permitting areas, to deploy solar and wind in areas with high renewables potential and low environmental and social risks



Informing the Western Solar Plan to support responsible solar energy development on public lands in 11 states—places where there is high solar energy potential, low conflict with natural resources, and a commitment to engaging with Tribes and community stakeholders

Informing siting decisions for rapid and responsible renewable energy deployment in 8 countries

Europe (Croatia, Montenegro, North Macedonia, Portugal, Serbia), India, Peru, United States

Mine lands repurposed for renewables that support communities in transition

130 MW of projects on former mine lands located on TNC lands in the US

800 MW project on a former coal mine in Kentucky

50 MW solar project on former coal mine land in India

Working together: Partnering for impact

TNC is building coalitions for change and partnering with governments, Indigenous Peoples and local communities, the private sector, and other parties to increase global ambition, develop and drive solutions, and further an energy transition that benefits people and nature.

Now Deliver Change: Increasing ambition and accountability for 3x renewables by 2030

In 2023, at COP28 in Dubai, countries adopted this vital target that we supported through the <u>3xRenewables</u> campaign. In 2024, TNC joined a follow-on "<u>Call For Action</u>" led by Global Renewables Alliance and supported by over 100 organizations to "Now Deliver Change" by translating the commitment to triple renewable energy into effective action. Specifically, this campaign advocated for the inclusion of numerical renewable energy targets in countries' Nationally Determined Contributions (NDCs), due to be submitted in 2025. The campaign was launched ahead of New York Climate Week in September with a full-page campaign ad in the New York Times.

We're Setting a New Energy Standard for People and Nature

TNC is collaborating with partners to develop a credible, consensus-driven, voluntary industry standard that ensures social, environmental, and economic benefits from renewable energy projects. In 2024, TNC worked with industry leaders, community representatives, agricultural, and other partners to build a strong coalition for developing the Renewable Energy for People and Planet Standards (REPPS). TNC is also participating in the World Economic Forum's <u>Responsible Renewables Infrastructure Initiative</u>, launched to accelerate the sustainable and equitable expansion of renewable power infrastructure globally. This coalition brings together industry leaders who recognize the importance of the "People-Positive" and "Nature-Positive" global expansion of the infrastructure needed for the green transition.

Community and Biodiversity: Key to Europe's Energy Future

TNC is working closely with companies and industry associations in Europe to advance progress on renewable energy across the continent. Together, we are advocating for an integrated approach that respects communities and biodiversity. This includes providing practical guidance for renewable energy professionals and policymakers. In 2024, we supported the development of the <u>PowerPlant 2.0</u> guidebook by Eurelectric that outlines new principles to help developers incorporate biodiversity considerations throughout the lifecycle of renewable and grid projects, alongside policy recommendations to scale up such approaches. TNC also advocates for the inclusion of social and environmental criteria in renewable energy procurement, such as through auctions and power purchase agreements. In 2024, we signed an in-kind collaboration with the RE-Source Platform, a European alliance of corporate energy buyers and energy developers, to help mainstream procurement tools that consider people and nature.

Strengthening Social License of U.S. Solar

In the U.S., TNC co-leads the <u>Solar Uncommon Dialogue</u>, a coalition that aims to accelerate the deployment of large-scale solar in ways that advance climate, conservation and community goals – the "3Cs". It was established in 2023 to develop new tools, best practices, and other consensus-based strategies to improve large-scale solar siting and permitting outcomes for communities and the solar industry. This initiative is co-convened by Stanford University's Woods Institute for the Environment, The Nature Conservancy, the Solar Energy Industries Association, and the Solar and Storage Industries Institute. In 2024, the consortium received funding to carry out innovative social science research on how to improve largescale solar siting processes and outcomes for host communities.

Site Matters

Support rapid and responsible renewable energy deployment

TNC is working with governments and partners to identify areas where renewable energy can be developed with lower risk and higher benefit for nature and communities. In India, the U.S., and several other countries, we are developing and expanding science-based siting tools and practices to ensure the energy transition proceeds in harmony with nature and communities.

> "Our work to accelerate renewable energy in North America, Europe and India shows that this can be done in a way that supports a nature-positive and just transition."

Jennifer Morris | Chief Executive Officer, TNC



Aerial view of Aleksandar Dedinec, Viktor Andonov and Igor Vejnovic walking through the solar panels in "Oslomej Solar Power Plant 3" near Oslomej in North Macedonia. © Ciril Jazbec

Site Renewables Right in the U.S.

In April 2024, the North America Renewable Energy program was awarded funding to expand the coverage of the <u>Site Renewables</u>. <u>Right</u> tool from 19 U.S. states to the entire lower 48. The team is exploring options that expand the functionality of the tool with social and equity considerations. This entails carrying out interviews with potential users, incorporating Tribal energy considerations, and evaluating the relative health benefits to deploying renewable energy in different regions of the country.



SiteRight for renewable energy in India

In India, TNC developed the <u>SiteRight</u> tool to drive utility-scale solar and wind energy development on low-impact land parcels and help avoid the risks of poorly planned solar and wind projects to agriculture, food security, and natural areas. Smart renewable energy siting helps minimize conflict and maximize benefits to nature and people. Renewable energy planners and developers can use TNC's SiteRight tool to make decisions about siting new projects in low-conflict areas considering potential impacts of renewable energy projects on biodiversity, community livelihoods, and future food security.

Siting renewables while protecting the Peruvian Amazon

TNC began defining renewable energy zoning maps in Peru in 2022 with a successful pilot in the department of La Libertad. TNC is now expanding implementation in the departments of Moquegua and Loreto in the Peruvian Amazon in collaboration with the Peru Ministry of Energy and Mines (MINEM). In 2024, TNC and MINEM signed an extension of the collaboration to 2027. This partnership has already led to publishing TNC's Siting Renewables Right methodology factsheet on the Ministry's website and a <u>Web-GIS tool</u> for wind and solar siting at a national scale to serve as an early screening tool for land and energy planning.

Get in the Zone: Renewable Acceleration Areas in Europe

Under the new European Union Renewable Energy Directive, the 27 EU Member States need to plan spatially for renewables and designate the so-called Renewables Acceleration Areas (RAAs) that are fast-track permitting areas pre-determined for accelerated deployment of renewable energy. TNC supports effective implementation of the legislation through science, research, policy, and partnerships. We map out the places with high solar and wind potential and low conflict with the wellbeing of nature and people so that the fast-tracked permitting efforts can help advance the energy transition while avoiding risks for biodiversity and communities. We are working with 4 EU Member States, as well as EU accession countries as part of the Energy Community in Southeast Europe, to inform national spatial mapping and RAAs.

TNC released a pan-European study, titled "Land use and Europe's renewable energy transition: identifying low-conflict areas for wind and solar development", which builds on our smart-siting research that demonstrates that Europe has more than enough suitable land to meet the EU's renewable energy target in ways that meet goals for biodiversity as well.

In 2024, TNC advanced solar and wind smart siting research in 6 European countries, contributing to protecting 5,249 km2 of high-biodiversity land from the potentially adverse effects of renewable energy deployment by 2030.

In Portugal, TNC is helping the country to achieve its ambitious renewable energy targets. <u>A collaboration</u> with the Portuguese National Laboratory of Energy and Geology, the Portuguese Renewable Energy Association, and national NGO ZERO aims

to support the Portuguese government's commitment to designate renewables acceleration areas by 2026 by applying TNC's smart siting methodology.

In 2024, TNC continued to build on the science-led, smart siting methodology across Southeast Europe, identifying areas in Croatia, Serbia, Montenegro, and North Macedonia. In Montenegro, a <u>pilot study</u> found enough renewable energy potential to power 200,000 households from nature-friendly wind and solar locations – enough to replace the country's biggest coal plant. Building on this local research, we launched the <u>Montenegro Energy Growth and Acceleration (MEGA)</u> initiative, aiming to map solar and wind potential across Montenegro.

In Croatia, we identified that half of the country's national renewable energy target could be met by just one county with minimal disruption to nature. Following-up on this local study, we have been working with key national actors in Croatia to identify places with low-biodiversity conflict where solar and wind could go. In 2024, the Croatian Ministry of Environmental Protection and Green Transition <u>officially</u> <u>unveiled and endorsed</u> TNC's Species Sensitivity Maps, which leverage data on over 350 animal species and 1 million observations and enable precise risk assessments for solar and wind energy projects to identify areas with minimal environmental impact.

Demonstrating on the ground and in the water

Renewable energy projects that support climate, conservation, and community goals

Nature-friendly renewables can be triple wins for the climate, conservation, and communities. To support this "3C" transition, TNC teams are working across continents to develop guidance for best practices and implement pilot projects that can provide important models for future renewable energy infrastructure development.

Supporting 3C Projects on TNC Lands

TNC is demonstrating projects that support climate, conservation, and communities on our own lands. In the <u>Central Appalachians in the Cumber-</u><u>land Forest</u>, TNC signed eight lease-option agreements across 1,000 acres of former coal mining lands to enable 130 MW of solar and is exploring additional agreements. Following on this success, TNC is now requesting proposals for additional renewable energy projects on former mine lands on our lands. We expect to announce new projects in 2025.

More Marine Habitat: Integrating Oyster Reefs into Offshore Wind Projects

In the North Sea, <u>TNC is working with partners</u> to advance science through innovative demonstration projects that integrate reef restoration into offshore wind project designs to integrate marine habitat into offshore wind infrastructure. TNC's team is working with partners —ARK Rewilding Nederland, van Oord, TenneT, and Uni Waardenburg — over the next couple years to develop a demonstration project in Rotterdam Harbor using a remote setting technique that uses the seabed foundation as the base for oyster reef restoration. When completed, this project is set to become the biggest marine restoration project on the planet.

Solar farm enables the largest tallgrass prairie preservation effort on record

In 2024, TNC announced the creation of the <u>Smiley Meadow Preserve</u> in Texas after we initiated conversations with renewable energy company Ørsted about the ecological significance of this area. Once slated to be developed as part of a solar farm, nearly 1,000 acres of rare tallgrass prairie were protected in North Texas, making it the largest preservation effort on record for this type of native prairie. This preserved habitat will now serve as a seed source for future restoration projects, including on solar project lands. At the same time, the project is helping further Ørsted's net positive biodiversity impact goals, in addition to building its 471 MW Mockingbird Solar Center on approximately 4,900 acres.

Smiley Meadow Preserve

Orsted

"We must make it faster, easier and cheaper for 3C projects to come online. That is the key to deploying renewable energy at the pace and scale we need to reach our climate goals in the U.S."

> Jessica Wilkinson | North America Renewable Energy Team Lead

A Natural Choice for Europe's Solar Parks

Nature-inclusive solar parks are solar installations designed to produce renewable energy while also enhancing local biodiversity. In a landmark collaborative policy paper titled, "<u>Rewarding and Incentivising Nature-Inclusive</u> <u>Solar Through EU Policy</u>", TNC and SolarPower Europe show that well-planned solar parks can help not only mitigate the impacts of climate change, but also combine restoration, conservation, and energy production on the same plot of land. The paper outlines guidance and policy recommendation for how nature-inclusive solar parks can significantly contribute to the EU's ambitious Nature Restoration Law, which aims to restore at least 20% of degraded land and sea by 2030 and all degraded ecosystems by 2050.

Above: Smiley Meadow Preserve. From left to right: Susan Sloan, Head of Government Affairs and Marketing Strategy at Ørsted; Mayor Mihir "Mark" Pankaj of the City of Paris; David Bezaanson, TNC Texas Land Protection Strategy Program Director; Texas State Representative Gary VanDeaver; Suzanne Scott, TNC Texas State Director; Brandon Belcher, TNC North Texas Preserves Manager. Photo courtesy of Ørsted Below: © 2023 Sean Fitzgerald Photography, Inc. All Rights Reserved.

Centering communities in the energy transition

In 2024 TNC worked to ensure a communitycentered approach to the renewable energy transition.

Mining the Sun: Supporting communities in transition

In Europe, India, and the U.S., TNC is supporting communities in transition from fossil fuel-dependent economies through efforts like our Mining the Sun initiative to drive more renewables development on former mining sites. This effort can accelerate renewables while supporting communities at the front lines of the energy transition. In 2024, TNC launched a new <u>Mining the Sun</u> report that examines the challenges and benefits of building renewable energy on these types of sites and offers recommendations for a path forward. In Europe, TNC helped North Macedonia to identify <u>optimal</u> <u>solar sites</u> for producing 11 GW of renewable energy on brownfields. Twice the amount of land in North Macedonia needed to power the country on renewables is available on brownfield and degraded lands alone.

Cle n Energy

Communities + Science = A step forward for renewable energy siting

In 2024, the U.S. Department of Energy launched a new funding program -Renewable Energy Siting Through Technical Engagement Program (R-STEP). The program was designed to accelerate renewable energy deployment by supporting the establishment of "more predictable, community-oriented, and science-based siting processes." It does this by providing funds to state coalitions that include agriculture agencies to provide technical support and develop resources for local communities to proactively manage the clean energy transition. TNC is a named partner on four grants awarded through the program in Colorado, Indiana, Oklahoma and Washington. The Washington coalition is led by the Affiliated Tribes of Northwest Indians (ATNI) and will establish a new ATNI Tribal Clean Energy Collaborative. This effort is intended to consider Tribal renewable energy and transmission needs, Tribal sovereignty and rights, sensitive natural areas and working lands - all with the goal to minimize harm while maximizing benefits to Tribal communities. ATNI is a membership organization representing 57 Northwest Tribal governments from Oregon, Idaho, Washington, southeast Alaska, Northern California, and Western Montana.

Guidance for a community powered transition

To provide support for an equitable energy transition, TNC and Cambridge Institute for Sustainability Leadership developed a white paper "Enabling a Community Powered Energy Transition - Good practices for engaging stakeholders, fostering collaboration, and promoting socioeconomic benefits" and accompanying op-ed. This paper was released to influence the European Commission's Guidance Package on renewables permitting and non-price criteria in auctions. TNC also contributed to the Pathway Forward Inclusive Clean Energy Future for the Clean Energy Industry in May 2024. Led by Renewables Forward, this paper outlines an array of actionable steps for clean energy organizations to become more inclusive.

ane

The Oslomej Solar Plant in North Macedonia was built using land from a decommissioned coal mine. © Ciril Jazbec

India: A model for low-conflict renewable energy

SiteRight Social Assessment

To advance the SiteRight tool, in 2024 TNC held a Senior Consultation Workshop with partners and stakeholders, as well as conducted research on social indicators integrated into the tool. The social assessment component of the tool, developed in collaboration with the Foundation for Ecological Security (FES), includes 12 social indicators for 9 Indian states that capture four dimensions of social value and peoples' dependence to land.

Building on the data

TNC is working on planning approaches and policy recommendations to guide the development of siting guidelines and identification of "go-to" areas for renewable energy development across India. In 2024, TNC conducted a geotechnical study and cost-benefit analysis of coal mine repurposing that compared renewable energy projects to afforestation projects.

Bringing it to life

The construction of the first (in India) 50 MW solar project on former coal mine land is scheduled for 2025. TNC signed an MOU with the NLC India Limited to spearhead the work for the repurposing of closed mines for renewable energy. Not only will this project demonstrate the benefits of projects on degraded lands, but it also will identify opportunities for former coal mine workers to transition to work in renewable energy – offering economic and community co-benefits.

Powering Change with Policy

Policy helps make a 3C renewable energy transition possible. TNC continues to work with all levels of government to develop new or improved policies that are equitable, ambitious, and grounded in science.

Better and Faster Environmental Permitting is Possible

TNC expanded work on <u>clean energy permitting reform</u> and published a report titled, "<u>Improving the Environmental Permitting Process for Clean</u> <u>Energy Infrastructure</u>" in collaboration with subject matter experts from Perkins Coie LLP. The report recommends administrative and legislative policy changes across a number of clean energy sectors with a goal to accelerate the timelines for approval of new projects by 50% while maintaining important conservation, public engagement, and transparency priorities.

Supporting Policy & Guidance for Europe's Renewable Acceleration Areas

The European Union's Renewable Energy Directive holds Member States accountable for conducting renewable energy spatial mapping, designating so-called Renewable Acceleration Areas (RAAs). Using our smart siting experience from Southeast Europe, in 2024 TNC <u>successfully advocated</u> for the European Commission to <u>publish guidance</u> for EU Member States on best practices for mapping and designating the most suitable areas for RAAs with consideration for nature and communities. TNC has given feedback to two consultations by the Commission: <u>RAA Guidance</u> and <u>Guidance on non-price and pre-qualification criteria for auctions</u>.

In the Western Balkans, TNC deepened its <u>collaboration with the En-</u> <u>ergy Community</u>. Through this initiative, we support non-EU countries in Southeast Europe and the Black Sea region in preparing for the implementation of the Revised Renewable Energy Directive provisions related to Renewable Acceleration Areas. With this partnership, TNC's nature-friendly smart siting approach could be scaled in nine Contracting Parties of the Energy Community.

Low-Impact Siting Policy Frameworks in India

TNC developed, in collaboration with Microsoft AI for Good Research Lab, a policy brief with the T20 group under G20 Brazil titled, "Balancing a Trifecta of Economic Development, Environmental Sustainability, and Social Inclusivity: a Policy Framework for Low-Impact Siting to Facilitate India's Sustainable Energy Transition". The paper explores the intersection of responsible land use planning and renewable energy development and highlights the importance of utilizing the degraded and converted lands, such as former mining sites and existing built infrastructure, to avoid potential conflicts. "When clean energy is sited on former mines, it can help avoid converting green spaces for the clean energy transition. But the expenses of mine cleanup liability have prevented many developers from considering these sites, leaving them a largely untapped resource across the country. The passage of this act helps set the stage for reusing hardrock mines to improve the health of communities and the planet."

Jennifer Morris | Chief Executive Officer, TNC



Permitting and Siting Best Practices for U.S. Policy Makers

TNC, Clean Air Task Force, and Natural Resources Defense Council jointly commissioned E3, an energy and environmental economics consulting firm, to develop the <u>Assessment of Renewable</u> <u>Energy Siting and Permitting Policies</u> report that examines policies from eight U.S. states (California, Illinois, Indiana, Maine, New York, Ohio, Virginia, and Washington). In the report, E3 offers policy recommendations based on these eight states for all U.S. state policy makers on how to facilitate more efficient renewable energy permitting and siting.



The U.S. Western Solar Plan: 31 Million Acres of Potential

In December 2024, the United States Department of the Interior Bureau of Land Management issued the Record of Decision for its updated <u>Western Solar Plan</u>, which will guide responsible solar energy development on public lands in the western U.S. states. TNC provided detailed comments and input to the plan. This update of the Plan expands the region covered by the plan from 6 to 11 states, includes a commitment to engage with Tribes and community stakeholders before decisions are made region-wide, and creates a glidepath for projects in areas with high solar potential and low conflict with natural resources.

More Policy Highlights from Around the U.S.

Massachusetts

TNC Massachusetts staff were <u>heavily involved</u> in the drafting of the Commission on Energy Infrastructure Siting and Permitting recommendations and served on the commission to inform the new renewable energy siting bill S.2967, <u>"An Act promoting a clean energy grid,</u> <u>advancing equity and protecting ratepayers</u>".

Idaho and Oregon

TNC Idaho's climate team provided grant writing technical assistance to the Nez Perce Tribe to support a successful climate grant proposal to the U.S. Environmental Protection Agency for a Climate Pollution Reduction Grant. The grant will fund, among other things, _ renewable energy infrastructure, and electric vehicle transportation networks on the Tribe's facilities in Idaho and Oregon.

Colorado

The Colorado legislature passed SB24-212, the "Local Governments" Renewable Energy Projects" bill, which directs state agencies to provide resources to local dovernments to assess, site, and permit utility-scale renewable energy projects while considering community values, including impacts to lands and wildlife. TNC Colorado was instrumental in getting the bill across the finish line and played a leadership role in convening the Colorado Renewable Energy Siting Coalition, that held convenings and provided comments throughout the bill's development.

Florida

TNC Florida chapter worked with the Miccosukee Tribe to prepare a grant application to fund climate investments and in August 2024, the U.S. Environmental Protection Agency announced that the Miccosukee Tribe will receive funding from the Greenhouse Gas Reduction Fund's Solar for All program. TNC will continue working with the Miccosukee Tribe to implement the funds.

Alaska, Arizona, Maine, and Utah: The "Decade to Deliver" Campaign

TNC implemented a state-based "Decade to Deliver" campaign, designed to highlight how two landmark federal policies – the Inflation Reduction Act and Infrastructure Investment and Jobs Act – are helping people and communities. We worked with state chapters in four priority states—Alaska, Arizona, Maine, and Utah—to maintain a steady drumbeat of information and outreach with op-eds and social media. Our aim was to illustrate the successes of the IRA and IIJA to build political will and a foundation of support for both laws. These initial efforts in four states provide a strong foundation for our ongoing work to influence key federal lawmakers and defend these policies from potential rollbacks.

Sea Change: Advancing Offshore Wind Energy

Rapid deployment of offshore wind energy is a critical part of the clean energy transition. TNC collaborates with partners to advance offshore wind energy while safeguarding marine resources and supporting local communities.

Working with the United Nations Global Compact, Ørsted, and Ocean Stewardship Coalition, TNC co-authored the <u>Net-Positive Biodiversity</u> <u>In Offshore Renewable Energy Minimum Crite-</u> <u>ria And Recommendations For Action</u> report that was launched at the UN Ocean Decades Conference in April 2024. The report articulates criteria and recommendations for different sectors to support and deliver biodiversity positive action at offshore energy projects around the globe.

Advocating for science-based leasing and policies for the Gulf of Maine and the Central Atlantic

To accelerate offshore wind energy deployment in the northwest Atlantic, TNC informs the Bureau of Ocean Energy Management (BOEM) federal site suitability analysis. TNC directs BOEM to the best available modeling data and supports understanding of data gap limitations and challenges. TNC has asked BOEM to confirm that biodiversity and ecosystem health are primary considerations. TNC submitted numerous comments in response to various stages of U.S. offshore wind permitting and development, including on the Wind Energy Areas proposed in the Gulf of Maine in response to the BOEM Proposed Sale Notice (PSN) for the Central Atlantic and the draft Environmental Assessment (EA) for specific portions of the Central Atlantic Wind Energy Areas.

Supporting ecosystemfocused offshore wind projects

TNC developed plans to expand the <u>Marine Map-</u> <u>ping Tool</u>, which supports offshore wind project siting. The expansion will add several features to support offshore wind companies, restoration experts, and federal agencies in making the best ecosystem-focused mitigation decisions to comply with regulatory requirements and to achieve voluntary Net Positive Impact on Biodiversity goals.

Combatting Misinformation

TNC also launched an <u>offshore wind webinar</u> <u>series</u> that covered topics including the effect of offshore wind on electricity costs, whales, birds, fish and benthic habitat, TNC's offshore wind marine mapping tool, community benefit agreements, and project-level voluntary Net Positive Impact on Biodiversity goals at the project level.



Four more ways we lead with science

Beyond the highlights already covered in this report, in 2024, TNC scientists contributed to peer-reviewed renewable energy science with four new publications.

1) S. S. Parker, M. J. Clifford, & B. S. Cohen (2024). <u>Potential impacts of proposed</u> <u>lithium extraction on biodiversity and conservation in the contiguous United States</u>. Science of The Total Environment, 911, 168639. <u>https://doi.org/10.1016/j.scito-</u> <u>tenv.2023.168639</u>

2) Y. Peng, Y. Luo, Z. Xu, T. Jin (2024). <u>Ecological impacts of centralized large-scale</u> <u>photovoltaics and wind farms: progress and prospects</u>. Biodiversity Science, 32, 23212. DOI: 10.17520/biods.2023212

3) J. M. Kiesecker, J. S. Evans, J. R. Oakleaf, K. Z. Dropuljić, I. Vejnović, C. Rosslowe, E. Cremona, A.L. Bhattacharjee, S.K. Nagaraju, A. Ortiz, C. Robinson, J.L. Ferres, M. Zec, K. Sochi (2024). Land use and Europe's renewable energy transition: identifying low-conflict areas for wind and solar development. Frontiers in Environmental Science. <u>https://doi.org/10.3389/fenvs.2024.1355508</u>

4) M. J. Clifford, P. Gower, T. Anderson, J. Moan, M. Hazelwood, S. S. Parker, L. Saito (2024). <u>Is our climate fight killing the environment? A case for smart from the start planning</u>. BioScience. <u>https://doi.org/10.1093/biosci/biae122</u>

What's Next?

We look forward to continuing our renewable energy work in 2025! We will continue to make progress on our 2030 goals by accelerating renewable energy deployment in places that support a nature-positive and just energy transition, in international principles, policies, and markets, and scaling our strategy to new geographies and technologies. Stay tuned!

If you are interested in supporting our work, please contact Lindsay Hower, director of development for TNC's Tackle Climate Change Program, at <u>lindsay.hower@tnc.org</u>