

AgWind: Qualifying Rural and Remote Wind Projects

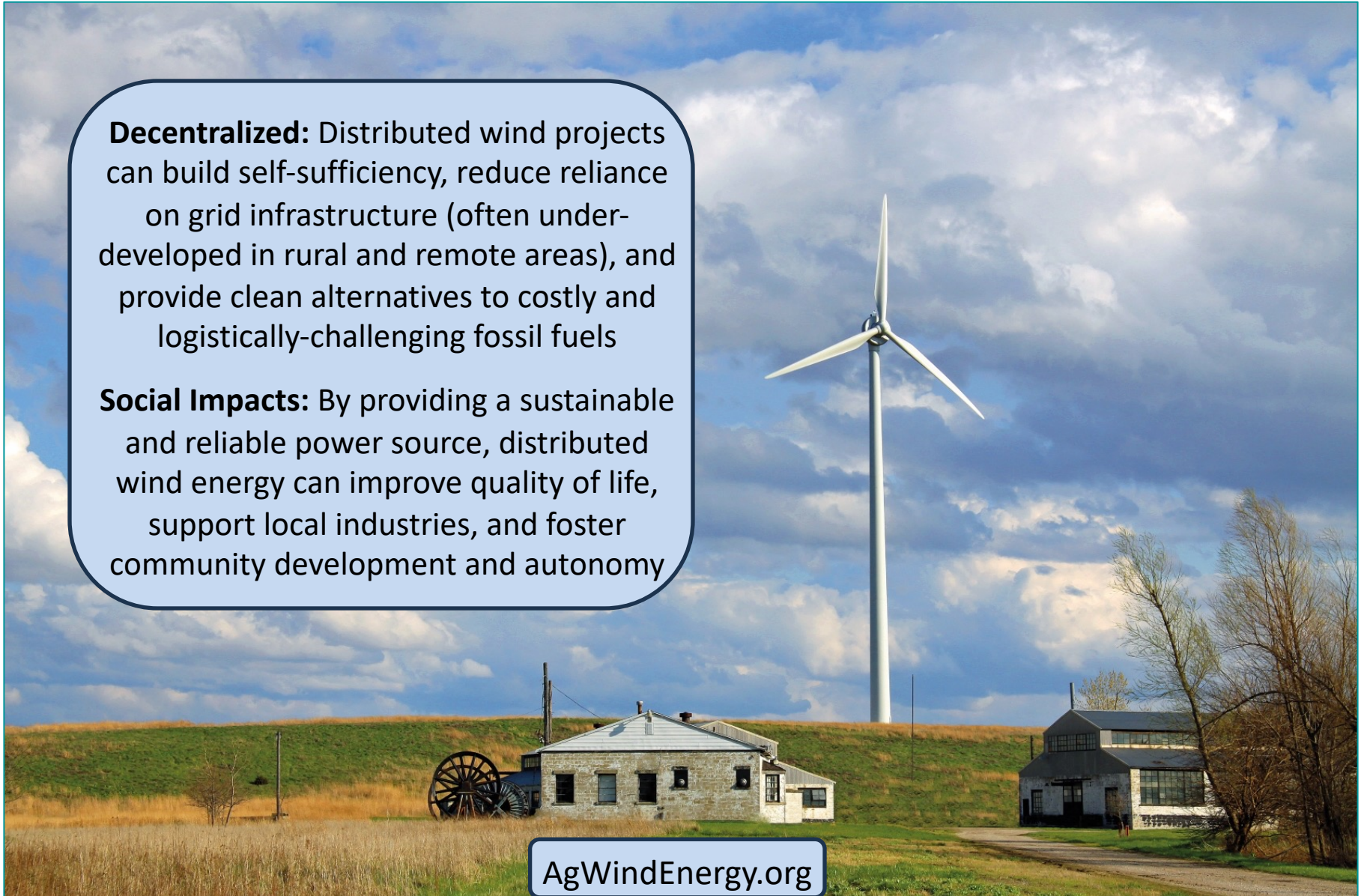


DWEA's Justice40-Focused Outreach to
Agricultural Markets



Decentralized: Distributed wind projects can build self-sufficiency, reduce reliance on grid infrastructure (often under-developed in rural and remote areas), and provide clean alternatives to costly and logistically-challenging fossil fuels

Social Impacts: By providing a sustainable and reliable power source, distributed wind energy can improve quality of life, support local industries, and foster community development and autonomy



No-Cost Assistance: AgWind's no-cost site screening and technical assistance address a major market gap, making it easier for rural stakeholders to explore and utilize wind energy

Leveraging Expertise: AgWind's team of independent experts offers streamlined path to DW deployment backed by industry knowledge and experience.

Energy Independence: Wind energy can help rural areas become more energy independent, reducing reliance on grid infrastructure and providing a sustainable power source

Environmental Impact: AgWind supports clean energy adoption, reducing the carbon footprint and helping combat climate change, aligning with rural community values

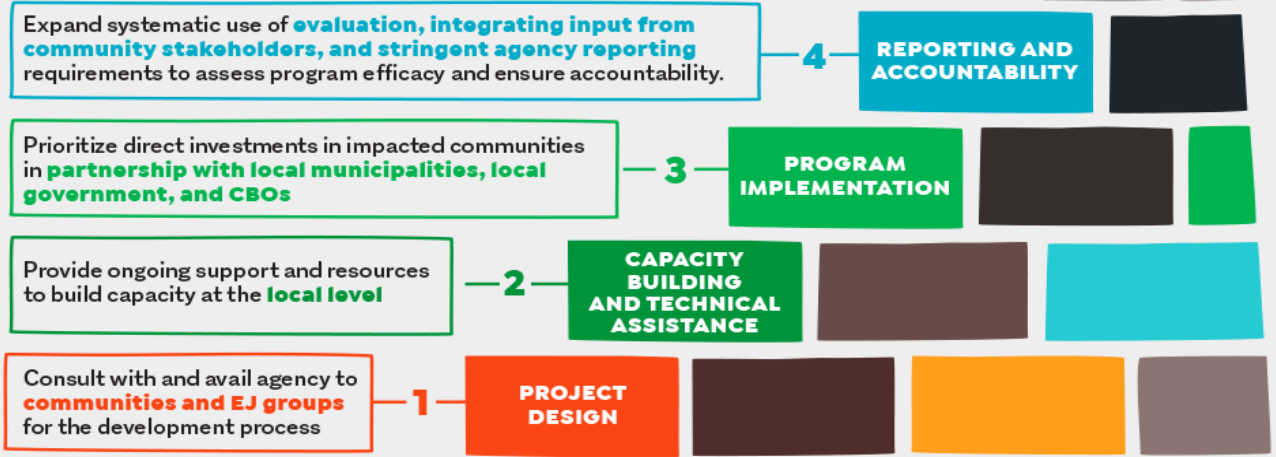
JUSTICE
40

Economic Benefits: Rural businesses, farms, and homes can stabilize their energy costs with wind energy and potentially create a new income stream through turbine leases or lower operational costs

JUSTICE 40 ACCOUNTABILITY FUNDAMENTALS



Environmental justice addresses both how benefits and impacts are distributed among groups (distributive justice) and how to ensure meaningful involvement in decision-making (procedural justice)



Detailed commitments on how barriers to employment and advancement opportunities for underrepresented individuals will be reduced by providing supportive services and through partnerships with:

- Underrepresented businesses
- MSIs
- Training organizations serving workers who face barriers to accessing quality jobs, and/or
- Other project partners to help improve DEIA in energy jobs

Community and labor engagement leading to negotiated agreements

Investing in job quality and workforce continuity

Advancing diversity, equity, inclusion, and accessibility (DEIA)

Contributing to the Justice40 Initiative



Getting Started:

- Contact AgWind for a no-cost site screening and feasibility analysis.
- Consult with AgWind experts for technical assistance and detailed site feasibility reviews.
- Utilize AgWind's resources for connecting with certified wind turbine manufacturers and installers

Eligibility Criteria:

- Participants are primarily rural and remote communities.
- Emphasis on underserved and disadvantaged communities.
- Aimed at locations with significant wind energy potential.

Accessing the Tool:

- The online tool will be available SOON through the AgWind website
- Designed for rapid first-pass screening of potential sites

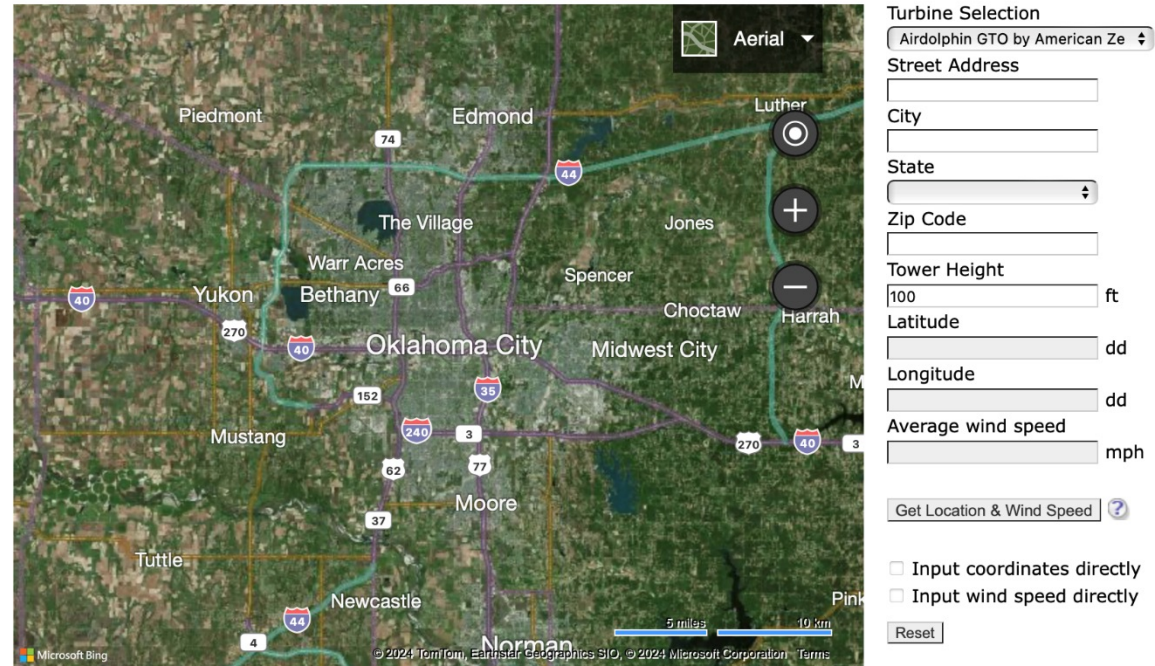
Using the Tool:

- Input location data to receive wind resource and geospatial information
- The tool integrates financial evaluation algorithms to assess the viability of wind energy projects
- Results include recommendations for turbine models and project scale, considering local permitting and interconnection constraints

WindReport

Turbine Production [Financial Analysis](#) [Saved Sessions](#) [Contact Us](#)

Logout



The screenshot shows the WindReport tool interface. On the left is a satellite map of Oklahoma with a green circle indicating a selected location near Oklahoma City. On the right is a form for turbine selection. The form includes a dropdown menu for turbine selection (currently set to 'Airdolphin GTO by American Ze'), text input fields for Street Address, City, State, Zip Code, Tower Height (set to 100 ft), Latitude, Longitude, and Average wind speed (set to 0 mph). There is a 'Get Location & Wind Speed' button with a help icon, and two radio button options: 'Input coordinates directly' and 'Input wind speed directly'. A 'Reset' button is at the bottom of the form.

Session Handling (optional)

Save this modeling session

Session Description

Client name

Model Time Span

1 years, beginning in 20:

WindCad Performance & Economics Evaluation Tool

Powered by New Roots Energy

Turbine Production [Financial Analysis](#) [Saved Sessions](#) [Contact Us](#)

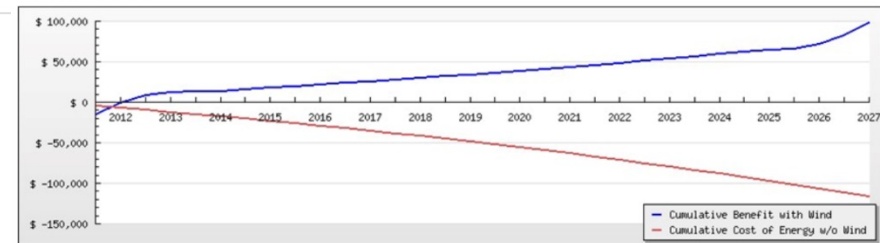
[Print Report](#)

[Logout](#) | [Administration](#)

Provided For	Provided By	Edit Info
Client Name	Company	
Address	Name	
Latitude	E-Mail Address	
Longitude	Phone	

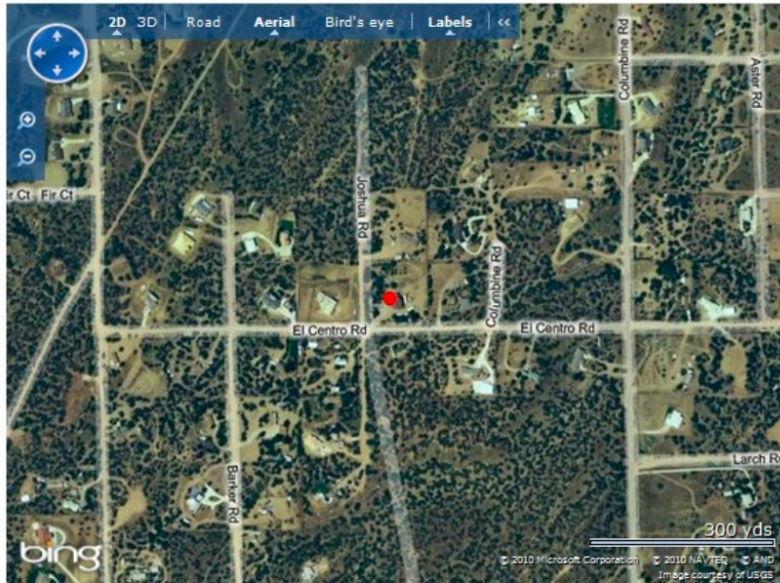
NPV \$ 62,013
IRR 84.88 %
Lifetime Cost of Energy \$ -0.09 /kWh
Payback Period 0.6 years

Costs & Benefits:



Input Parameters & Turbine Production:

This model has been customized for the state of [California](#).



Turbine Selection	Bergey Excel 10kW
Nameplate Capacity [kW]	10.0
Rotor Diameter [m]	7.0
Site Location:	
10328 El Centro	
Oak Hills, California	
34.390697° latitude	
-117.437889° longitude	
Average Wind Speed [mph]	13.91
Tower Height [ft]	100.0
Altitude [ft]	3,400.0
Weibull K	2.0
Wind Shear	0.18
Turbulence Factor [%]	10.0
Average Output Power [kW]	2.0
Daily Energy Output [kWh]	48.3
Monthly Energy Output [kWh]	1,470.5
Annual Energy Output [kWh]	17,646.1
Hub Average Wind Speed [mph]	13.9
Air Density Coefficient	0.9
Operating Time [%]	88.1



AgWind Collaborators



OUR WIND OUR POWER OUR FUTURE

Thanks to you, NREL's HeroX, and our current & future partners



**Lewisville Community
Development Corporation**



AgWindEnergy.org