



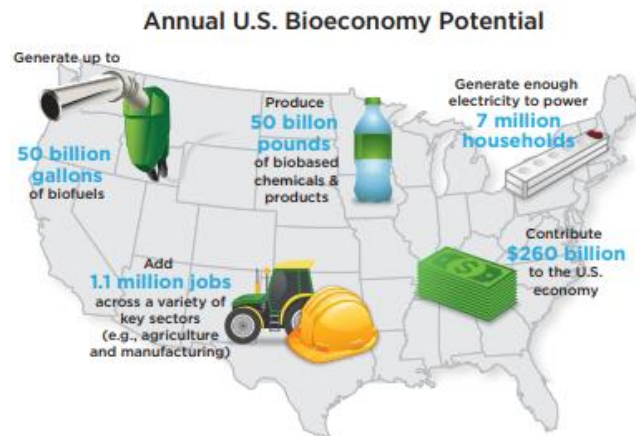
BD Zones and BDO Zones: Driving Bio-Based Investment in Opportunity Zones

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Leveraging the OZ Program to drive Bio-Based Investment

The OZ program has been effective in driving real estate investment in OZs... but the job creation impact of the bio-energy sector is not being maximized.

- There are over 600 Qualified Opportunity Zone Funds-- but only 1 or 2 are set up to invest in biofuels, biochemicals or biomaterials.
- This is a big missed opportunity for the OZ program. With potential economic benefits of **1.1 million jobs and \$259 billion** according to the USDOE, biomass utilization will be key to driving job creation in OZs— and to the economic recovery.
- The good news is that there is a subset of the OZs that have huge surpluses of biomass that be used to create clean energy jobs in OZs.
- There are hundreds of OZs that are “investment ready” for bio-based development—but right now the OZ program does not have a way of communicating this fact.
- The Bioeconomy Development Opportunity Zone Program (BDO Zone Program) can address this problem and drive a huge increase in renewable economic development in OZs.



What is a Bioeconomy Development Zone?

BD-Zones have three attributes: a surplus of biomass, low-risk supply chains to deliver it, and suitable infrastructure to support an operating plant

- A BD Zone designation will drive bio-business deal-flow:
 - ✓ By highlighting “bio-investment ready” zones as “AA” or “A” rated where project development is low risk.
 - ✓ Through the >60 key capital markets in the \$50 billion Risk Ratings Review Committee.
 - ✓ By promotion of BD Zone Designations through federal, state and local economic development organizations (i.e. US Economic Development Administration (EDA), Ohio Economic Development, Greater Fort Dodge Growth Alliance).



Certified Bioeconomy Development Zone (BDZ) Program

The Certified Bio-Economy Development Zone Program can give you comprehensive information about pre-qualified regions that:

- have a certified Supply Chain Regional Risk Rating*
- are free of major development constraints*
- have completed a certain level of due diligence including:
 - ✓ A Biomass Supply Chain Risk assessment based on the BSCR Standards
- have additional information available about the region:
 - ✓ Regional profile
 - ✓ Transportation infrastructure
 - ✓ Maps including topography, developable area and surrounding uses



*For a full list of program requirements and details, please visit Ecostrat.com/Standards/CertifiedBiomassZones

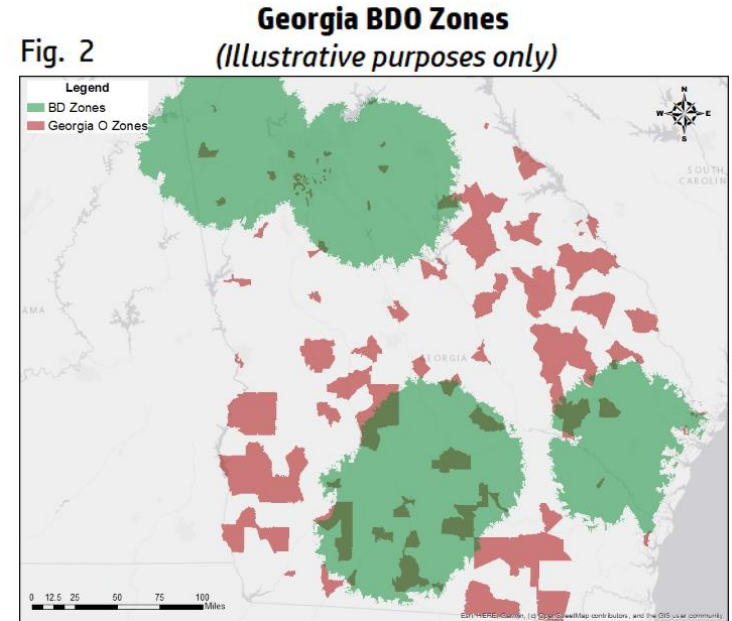
Investment Ready Biomass: Certified Bio-Economy Development Zones



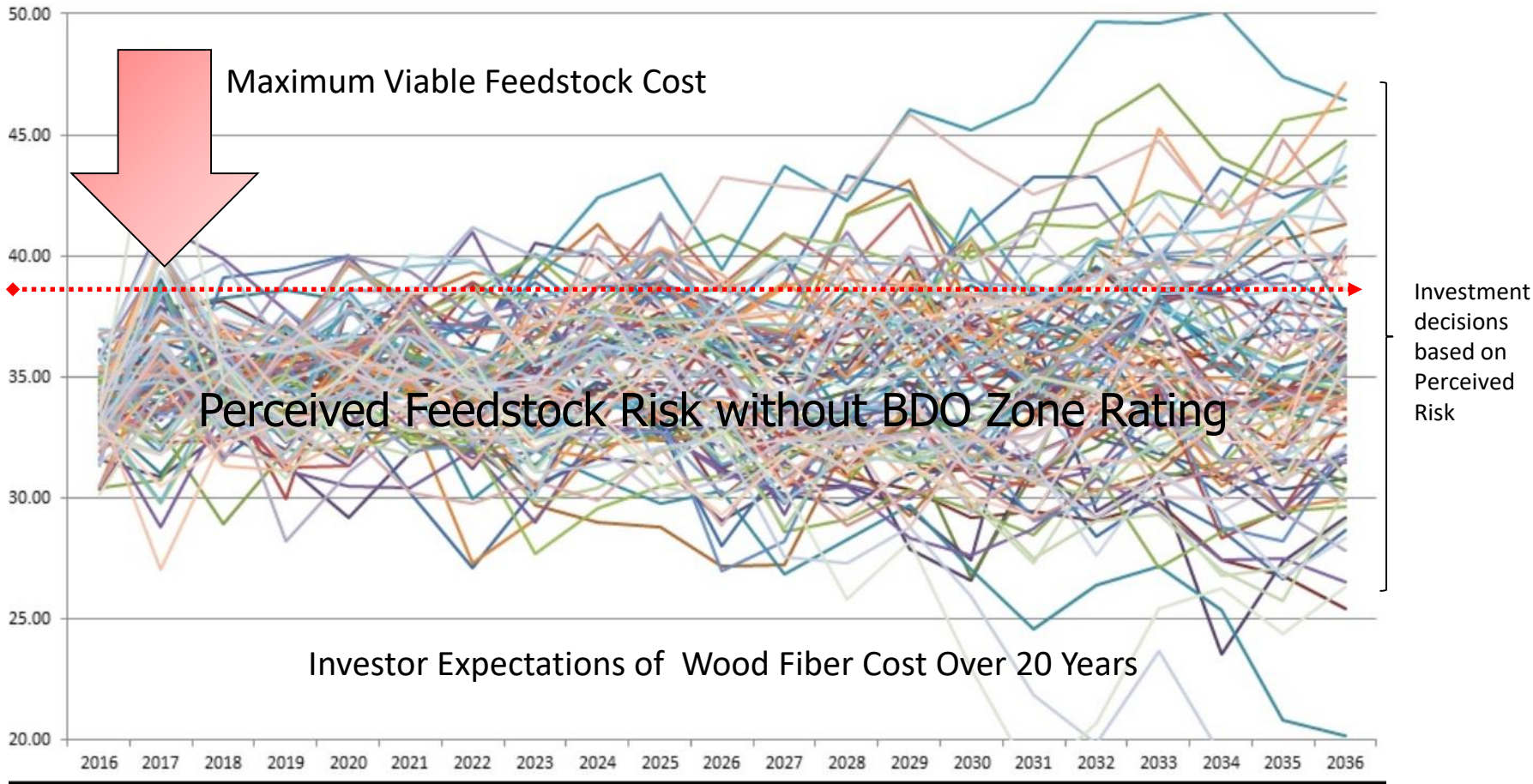
What is a Bioeconomy Development Opportunity Zone?

BDO Zones leverage the impact of the OZ program beyond real estate to drive clean energy job creation in OZs.

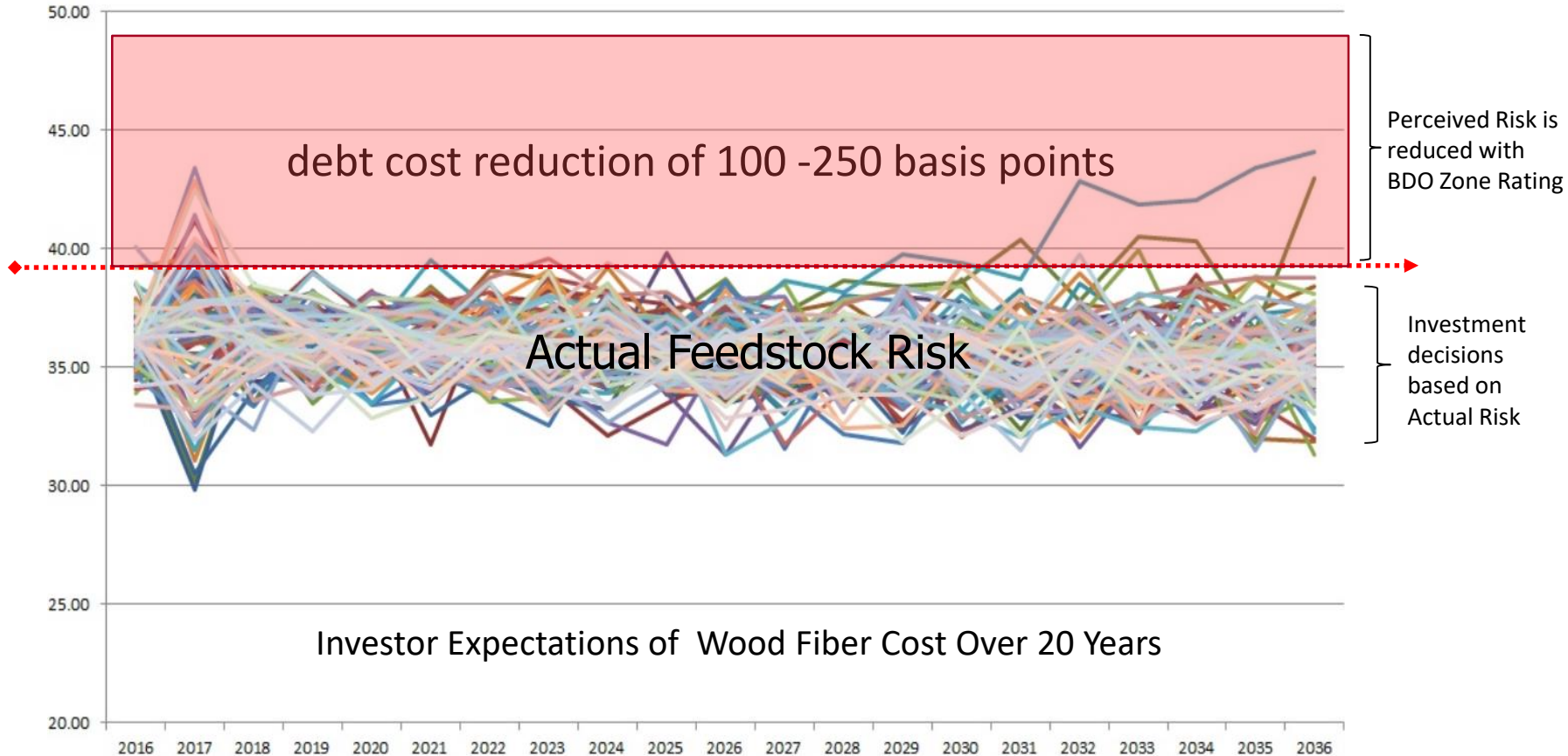
- *BD Zones + OZs = BDO Zones.*
- The BDO Zone designation identifies the subset of OZs that have best potential for bio-based economic development.
- BDO Zones have supercharged potential for bio-based development: low feedstock risk and OZ tax credits.
- Drives needed capital to new biochemical, biofuel and biomaterial plants located in OZs.



Biomass Feedstock Risk is a Key Investment Barrier



A BDO Zone “AA” or “A” Rating De-risks Investment into OZs



Certification of BDO Zones

Certification of the BDO Zones will use existing and validated BSCR standards



www.ecostrat.com/standards

The US Biomass Supply Chain Risk Standards

- 4 years of development by Idaho National Labs, Los Alamos National Labs, Ecostrat, and 150 member broad-based industry stakeholder coalition.
- Development funded by US Department of Energy / Bioenergy Technologies Office.
- The BSCR Standards and Risk Ratings give capital markets a vastly improved means to accurately model and calculate biomass feedstock risk.

Structure of the Standards for Biomass Supply Chain Risk



- BSCR Standards is a rigorous way of rating feedstock risk in BDO Zones.
- 6 Categories, 28 Risk Factors, 126 Risk Indicators.
- Reporting Requirements, Guidance & Best Practices.

Nomination of BDO Zones

Speed is of the essence. Nomination of the first BDO Zones should be top-down and bottom-up.

- **Top Down:** USDA Rural Development, US Forest Service, US Endowment for Forests & Communities, state bodies, or governors
- **Bottom Up:** Associations, State OZ organizations, mayors, cities, community organizations or reliable anchor suppliers of biomass with strong balance sheets: large landowners, forestry companies, sawmills, agricultural co-ops, food manufacturers, waste haulers or landfills.

Investment Into BDO Zones: The BSCR Risk Ratings Review Committee



- The largest bio-based investment group in the world.
- Over 55 BSCR Review Committee members (ecostrat.com/standards/participants)
- >\$50BB of deployable capital



How the BDO Zone Program Drives Economic Development



Why Should Government Support the BDO Zone Program?

When you couple the low biomass feedstock risk of an 'A' rated BD Zone with billions of dollars of OZ tax incentives, you have supercharged potential for bioeconomy development and related jobs.

- ✓ Leverages the benefits of the OZ program— more biofuel, biochemical, and biomaterial project development in OZs. More clean energy jobs in OZs.
- ✓ “AA” or “A” Certifications are a proven way to de-risk and drive economic development for specific regions. Good ratings increase project deal-flow to rated regions.
- ✓ BDO Zone Ratings distinguish an OZ region from other potential development areas.
- ✓ BDO Zone Ratings support anchor suppliers like sawmills, forestry operations and large agriculture located in and around OZs..
- ✓ Higher return on investment in BDO Zones through OZ tax incentives can enable development of biomass-based projects where it was previously impossible.

Recommendations for Government

Accelerate bio-based investment and job creation in lower income rural areas by:

1. **Creating a \$10MM BDO Zone Fund to provide matching funds to state and local economic development bodies** to rate, designate and promote qualifying Opportunity Zones as Bioeconomy Development Opportunity Zones (BDO Zones).
2. Stand up a new non-governmental US Biomass Ratings Agency (BIRA) to use the Standards for Biomass Supply Chain Risk to **certify ‘investment-ready’ BDO Zones across the country.**
3. Unlock billions of dollars for bio-based investment in Opportunity Zones by changing the OZ regulations to **increase the “Step-Up” from 15% – 50% for bio-based plants that locate in Opportunity Zones.**

Read and Download the PDF: ecostrat.com/bd-zones-and-bdo-zones

Learn about the BSCR Standards and Ratings: ecostrat.com/standards or inl.gov



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