

# Northwest Advanced Renewables Alliance (NARA): A Supply Chain to Aviation Biofuels and Environmentally Preferred Products

## Background

- This USDA funded project is for producing biojet fuel and co-products from forest residuals and construction and demolition debris to reduce the dependence on fossil fuels.
- Aviation biofuels are an attractive end product because liquid fuels are anticipated to be required for commercial and aviation for many years, biofuels are more easily implemented in the aviation sector, and major aviation purchasers have made commitments to use biofuels.
- Abundant residues (forest slash) are available in sustainable amounts.

## Key outcomes

- Sustainable industry in the PNW producing aviation biofuel and valuable co-products.
- Regional supply chain coalitions to utilize and revitalize existing infrastructure.
- Rural economic development through biomass harvest and utilization.
- Improve bioenergy literacy to educate the workforce of the future.
- NARA process is estimated to convert 1 bone dry ton (BDT) of wood into approximately 600 pounds of lignin co-products and 59 gallons of isobutanol or 42.7 gallons of biojet fuel.

## Highlights of current activities

- Establishing first regional supply chain study area in Northern Rocky Mountain Ecoregion; second one in the process of being established in western Oregon and Washington.
- Identifying two potential conversion sites in the Northern Rocky Mountain Ecoregion to process 1 million BDT of biomass annually for downstream biojet fuel production.
- The analyses surrounding the PSC work are: LCA, Community Impact Analysis, Conversion Site Analysis, and Feedstock Supply Scenarios.



- Developing the next generation of energy leaders for industry, government, and the civic sector through bioenergy literacy and education.
- Establishing viable wood-to-biofuel conversion technologies and identifying characteristics of softwood species that contribute to efficient biofuel conversion.

## Who benefits directly?

- Land managers (federal, state, tribal, private) and forest industry
- Rural timber communities struggling economically
- Commercial and military aviation (compliance with mandates)
- Forest industry
- Economic development authorities

## Partners

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