



Supply Base Report:

Pinnacle Renewable Energy:

Alabama Pellets LLC –

Demopolis Division

Main (Initial) Audit

www.sbp-cert.org



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Completed in accordance with the Supply Base Report Template Version 1.3

For further information on the SBP Framework and to view the full set of documentation see www.sbp-cert.org

Document history

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1 Overview

On the first page include the following information:

Producer name: Pinnacle Renewable Energy Inc. – Alabama Pellets LLC – Demopolis Division

Producer location: 970 Industrial Park Drive, Demopolis AL 36732

Geographic position: 87° 57'21.13" W, 32° 27'54.96" N

Primary contact: Joseph Aquino – Director of Sustainability

Company website: www.pinnaclepellet.com

Date report finalised: December 15, 2020

Close of last CB audit: XXXX

Name of CB: SCS Global Services

Translations from English: N/A

SBP Standard(s) used: Standard 1 ver. 1.0, Standard 2 ver. 1.1, Standard 4 ver. 1.0, Standard 5 ver. 1.0

Weblink to Standard(s) used: <https://sbp-cert.org/documents/standards-documents/standards>

SBP Endorsed Regional Risk Assessment: N/A

Weblink to SBE on Company website: <https://www.pinnaclepellet.com/sustainability/compliance-reports/>

Indicate how the current evaluation fits within the cycle of Supply Base Evaluations				
Main (Initial) Evaluation	First Surveillance	Second Surveillance	Third Surveillance	Fourth Surveillance
X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2 Description of the Supply Base

2.1 General description

Location

The wood pellet production facility (BP) is in the Southeast U.S. in Marengo County near Demopolis, Alabama. The facility is approximately thirty-five miles from the Mississippi state line and is adjacent to the Tennessee-Tombigbee Waterway near the confluence of the Black Warrior and Tombigbee rivers. This is a rural area where forestry and agriculture (e.g. crops, cattle) are prevalent and are the primary sources of income. Much of the forest land in this area is privately owned. Known as the Black Belt Prairie Region, the area is characterized by weathered rolling plains containing various hardwood and mixed hardwood/pine forests.

Supply Base

The supply base area for secondary feedstock includes Alabama, Mississippi, Georgia, South Carolina, North Carolina, Tennessee, Arkansas, and Louisiana in addition to certain counties in Florida, Texas, Missouri, and Kentucky. The origin of primary softwood feedstock is limited to Alabama and Mississippi mainly due to haul distance constraints. The majority of feedstock is generated within approximately 120 miles of the plant; however, the supply base area includes the supply basins for secondary feedstock suppliers.

There are three broad categories of land ownership in the US:

- Federal Lands – approx. 33%
- Private lands – approx. 60%
- State, public agencies and Indigenous Lands – ~7%

The following ownership structure is taken from the FSC US Controlled Wood Risk Assessment and is a good description of ownership structure in the BP's supply base.

Federal land ownership:

- The Bureau of Land Management, managing the “public lands” (100 million hectares, mostly not forested land, but including the commercially valuable forests of the O & C lands in western Oregon)
- The US Forest Service, managing the national forests and grasslands and some special reserved lands; by far the largest seller of legal timber from federal lands (78 million hectares, including non-forest lands and lands reserved from commercial harvest)
- The US Fish and Wildlife Service, managing the national wildlife refuges (35 million hectares, with the largest of its holdings in Alaska)
- The National Park Service, managing national parks, monuments, historic sites, etc. (32 million hectares, also with most of its holdings in Alaska)
- The Department of Defence, managing military reservations (7 million hectares)

State, Public Agencies and Indigenous Lands:

- State and local laws govern the classification and management of lands held by state and local governments (about 18 million hectares of potential timberlands).
- Typically, state, or local land management agencies, such as forestry commissions or parks departments, manage these lands.

- Local governments keep land tenure records. In some states, the courts keep the records. In some, the recorder is an administrative office of a local government.
- Local or state governments handle business registration, and state governments handle creation of corporations and other legal persons. A business incorporated in one state but operating in several states may have to register as a “foreign” corporation and designate a local agent in each state. In some states, businesses must also register with the state taxing authority.

Private Land Ownership:

- For privately owned lands, state and local laws and institutions largely govern tenure.
- State laws govern the sale or transfer of rights to land, the rights of property owners and occupants, and the recording of interests and rights to land.
- The general laws for contracts and property transactions govern most transfers of rights to manage and harvest on private lands. These are largely state laws. A private landowner will typically enter a contract with a logger allowing the logger to harvest timber.
- Private lands may be leased long-term for timber production, but it is more common for private landowners to lease their lands for hunting and recreation, reserving for themselves the right to sell or harvest timber.

Supply Base Regions

1. Alabama	2. Louisiana
3. Mississippi	4. Florida
5. Georgia	6. South Carolina
7. North Carolina	8. Texas
9. Arkansas	10. Tennessee
11. Kentucky	

Feedstock Procurement

BP purchases secondary residuals from various sawmills in Alabama and Mississippi. Primary feedstock is sourced from tracts in Alabama and Mississippi. Only softwood species are utilized for primary feedstock, no hardwood species are utilized. A gradual increase in the availability of residual material is underway throughout the region and coincides with increased housing starts.

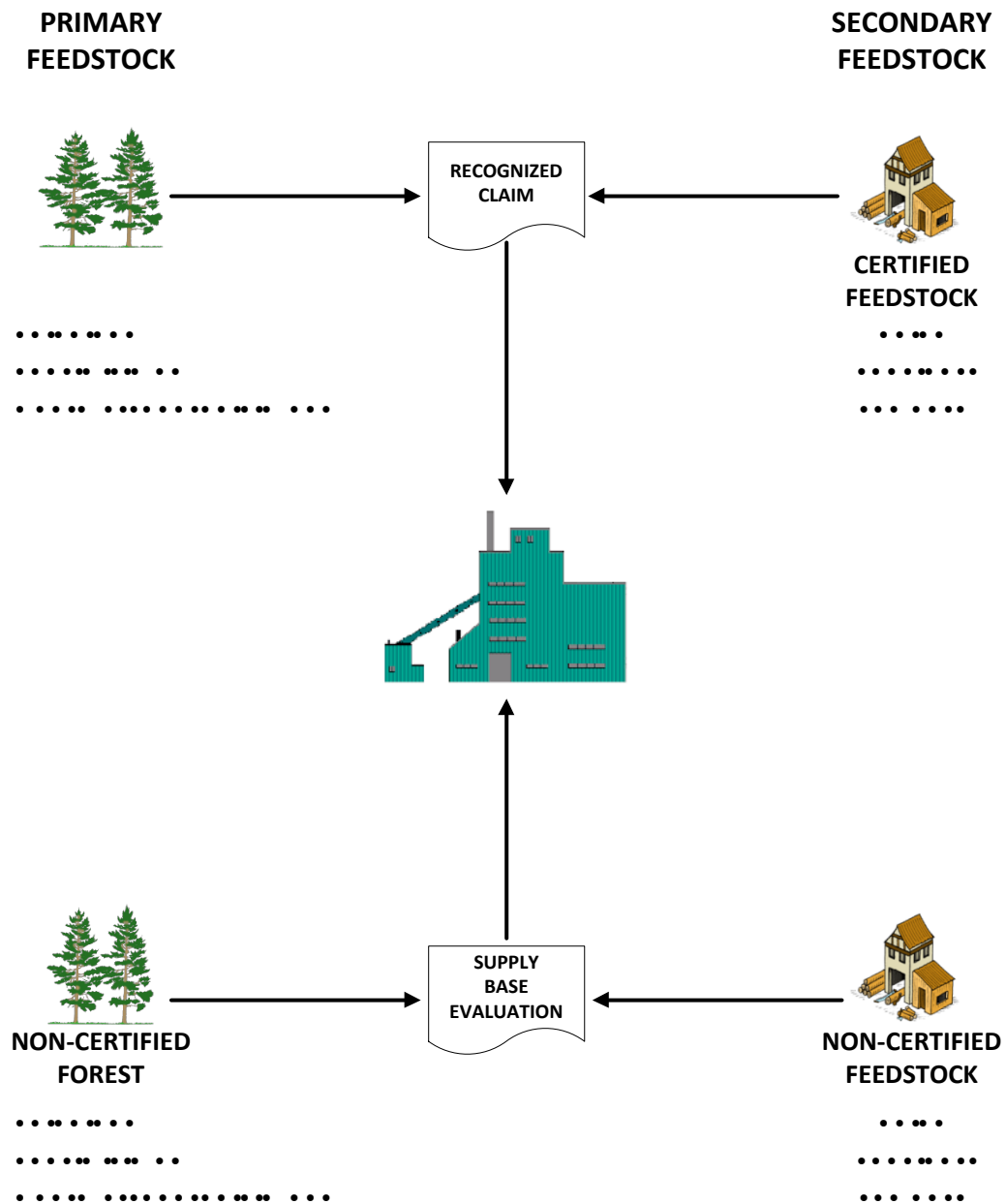
2.2 Actions taken to promote certification amongst feedstock suppliers

Customer demand for certified wood products drives forest certification in the US. PREI requires that claim certificates for PEFC certified fibre are issued from PEFC certified suppliers. PREI has developed a robust supplier communication program that underscores the importance of certification and the role landowners have in ensuring effective forest management. Pinnacle promotes certification schemes with suppliers as it is a core value of Pinnacles business. Pinnacle provides suppliers with the tools necessary to achieve certification compliance through shared knowledge.

2.3 Final harvest sampling programme

The expected rotation length for round wood softwood in BP's catchment is <40 years which is below the threshold required by the Standard for a final harvest sampling program.

2.4 Flow diagram of feedstock inputs showing feedstock types



2.5 Quantification of the Supply Base

a. Supply Base Area: 183,951,715 (ac) 74,442,684 (ha) (total including all forest types)

b. Tenure by type:

- Private	151,235,223 (ac)	61,202,777 (ha)	85.0 (%)	estimated
- Public	26,716,492 (ac)	10,811,790 (ha)	15.0 (%)	estimated
- Community Concession	- (ac)	- (ha)	(%)	de minimis

c. Forest by Type: 183,951,715 (ac) 74,442,684 (ha) Temperate

d. Forest Management by Type:

- Plantation	44,471,887 (ac)	17,997,150 (ha)	
- Managed Natural	125,531,845 (ac)	50,800,980 (ha)	estimated
- Natural	13,947,983 (ac)	5,644,553 (ha)	estimated at 10% of Managed Natural

e. Certified Forest by Scheme:

	ATFS (ac)	ATFS (ha)	SFI (ac)	SFI (ha)	FSC (ac)	FSC (ha)
- Alabama	2,762,304	1,117,866	2,944,878	1,191,751	670,919	271,512
- Mississippi	1,320,647	534,447	2,104,972	851,853	250,868	101,523
- Louisiana	1,052,129	425,782	2,962,742	1,198,980	619,974	250,895
- Arkansas	559,518	226,429	3,199,995	1,294,993	1,356,171	548,823
- Tennessee	340,879	137,949	475,216	192,313	100,436	40,645
- North Carolina	406,418	164,472	1,097,424	444,112	190,974	77,285
- South Carolina	1,112,169	450,079	1,126,774	455,990	327,299	132,453
- Georgia	1,924,197	778,696	2,419,141	978,992	81,601	33,023
- Florida	1,082,355	438,014	1,879,588	760,643	126,404	51,154
- Texas	788,625	319,145	2,391,417	967,773	163,479	66,158
- Missouri	127,563	51,623	-	-	238	96
	11,476,804	4,644,502	20,602,147	8,337,400	3,888,363	1,573,566

Feedstock

a. Total PDEM volume of Feedstock: 500,000 st

b. Total volume of primary feedstock: 0 st

c. List percentage of primary feedstock (g), by the following categories. Subdivide by SBP-approved Forest Management Schemes.

d. PDEM:

- Primary feedstock certified to an SBP-approved Forest Management Schemes – 0%

- Primary feedstock not certified to an SBP-approved Forest Management Schemes – **0%**

e. List all species in primary feedstock, including scientific name

1. Loblolly Pine (*Pinus taeda*)
2. Shortleaf Pine (*Pinus echinata*)
3. Slash Pine (*Pinus elliotti*)
4. Virginia Pine (*Pinus Virginiana*)
5. Longleaf Pine (*Pinus palustris*)

f. Volume of primary feedstock from primary forest – **0 st**

g. List percentage of primary feedstock from primary forest (i), by the following categories. Subdivide by SBP-approved Forest Management Schemes

- Primary feedstock from primary forest certified to an SBP-approved Forest Management Schemes – **0%**
- Primary feedstock from primary forest not certified to an SBP-approved Forest Management Schemes – **0%**

h. Total volume of secondary feedstock: **500,000 st**

i. Origin: **AL, MS, LA, AR, TX, SC, NC, GA, FL, TN, KY, MO**

j. Type: **Sawmill residuals, sawdust, bark, shavings, chips**

k. Total Volume of tertiary feedstock: **0 odt**

l. Origin:

3 Requirement for a Supply Base Evaluation

SBE completed	SBE not completed
X	<input type="checkbox"/>

4 Supply Base Evaluation

4.1 Scope

The SBE covers a relatively large supply base area to capture the extensive list of suppliers within the supply base under one risk assessment. The supply base catchment is significantly larger than the actual supply base. The actual supply base reflects the counties where BP suppliers operate, and it fluctuates over a year-to-year basis. The areas covered under the SBE covers these areas to avoid having to adjust the area covered under the SBE each year.

4.2 Justification

The size of the supply base area (SBA) ensures coverage of all current and potential harvesting areas in south eastern US. The process of identifying risk uses the best publicly available information as well as BP procedures to draw conclusions on risk designations. The FSC US National Risk Assessment was also used extensively where the SBE overlaps with the data in the FSC NRA. The findings for each indicator attempt to illustrate how BP procedures mixed with government legislation ensure the indicator will be addressed. It also incorporates how the effectiveness of those indicators are measured over time to ensure that risk that may not be present today remains that way in the future. The SBE analysis was thorough and includes data from many sources.

4.3 Results of Risk Assessment

The risk assessment resulted in specified risk for indicators:

- 2.1.2 - The Biomass Producer has implemented appropriate control systems and procedures to identify and address potential threats to forests and other areas with high conservation values from forest management activities.
- 2.1.3 - The Biomass Producer has implemented appropriate control systems and procedures for verifying that feedstock is not sourced from forests converted to production plantation forest or non-forest lands after January 2008.
- 2.2.3 - The Biomass Producer has implemented appropriate control systems and procedures to ensure that key ecosystems and habitats are conserved or set aside in their natural state (CPET S8b).
- 2.2.4 - The Biomass Producer has implemented appropriate control systems and procedures to ensure that biodiversity is protected (CPET S5b).
- 2.4.1 - The Biomass Producer has implemented appropriate control systems and procedures for verifying that the health, vitality, and other services provided by forest ecosystems are maintained or improved (CPET S7a).

The remaining indicators resulted in a low-risk designation due to a combination of BP procedures and government legislation.

4.4 Results of Supplier Verification Programme

N/A

4.5 Conclusion

The US is a region known for its strong legal framework. The US has many federal and provincial pieces of legislation related to forest management and forest practices that support some of the works cited in the supply base evaluation. Much of the forested land in the US has extensive data used to quantify how forests change over time. The US also maintains a robust land registry system to ensure legality factors remain low risk due to the strong rule of law in place.

The areas determined as specified risk are not necessarily due to a lack of legislative processes in place. Rather they are due to the high percentage of privately owned forest lands and the lack of a collective legislative process governing the use of those timberlands. The mitigation measures for the specified risk indicators are detailed in the mitigation measures section.

5 Supply Base Evaluation Process

The SBE was compiled in combination with Pinnacle Renewable Energy Inc. and a team of external certification consultants. The team consisted of subject matter experts that provided thorough analysis on the applicable findings and evidence to base the risk designations. The subject matter experts have extensive certification and risk analysis experience throughout the US states. Upon completion, the SBE was reviewed by internal staff to ensure the indicators aligned with company procedures.

6 Stakeholder Consultation

The BP conducted a stakeholder consultation for a period of thirty (30) days beginning December 16, 2020 and ending January 14, 2021 in conjunction with a supply base scope change. A list of relevant stakeholders was developed based upon several criteria including: the geographic scope of the Supply Base, stakeholders from FSC/PEFC/SFI audits and consultations, relevant federal and state natural resource agencies, private conservation organizations, indigenous peoples, academia, advocacy organizations, professional organizations, as listed below. The list of potential stakeholders was reviewed with the CB prior to the consultation. A notice to all interested parties was also posted on The BP's website during the entire consultation period.

Requests for comment were issued to 126 potential stakeholders and of this amount, 9 were returned as undeliverable, with a delivery success rate of approximately 93% (117 potential stakeholders). The distribution of requests by potential stakeholder group is as follows.

Natural Resource Agencies	50	39.7%
Nongovernmental Organizations	22	17.5%
Academia/Research/Advocacy	19	15.1%
Professional Organizations	16	12.7%
Industry	6	4.8%
Consultancies	5	4.0%
Indigenous Peoples	4	3.2%
Certification Standards	4	3.2%
<i>Total Solicited Requests</i>	126	100.0%

In conjunction with the supply base scope change, the CB also conducted a stakeholder consultation which did not result in any negative feedback.

6.1 Response to stakeholder comments

One comment was received during the Stakeholder Consultation period from a State Government Agency. This was positive in nature regarding Pinnacle's commitment to Alabama and sustainability in the Southeast United States. Pinnacle's response to this comment was a phone conversation with this stakeholder.

7 Overview of Initial Assessment of Risk

Table 1. Overview of results from the risk assessment of all Indicators (prior to SVP)

Indicator	Initial Risk Rating		
	Specified	Low	Unspecified
1.1.1		✓	
1.1.2		✓	
1.1.3		✓	
1.2.1		✓	
1.3.1		✓	
1.4.1		✓	
1.5.1		✓	
1.6.1		✓	
2.1.1		✓	
2.1.2	✓		
2.1.3	✓		
2.2.1		✓	
2.2.2		✓	
2.2.3	✓		
2.2.4	✓		
2.2.5		✓	
2.2.6		✓	
2.2.7		✓	
2.2.8		✓	
2.2.9		✓	

Indicator	Initial Risk Rating		
	Specified	Low	Unspecified
2.3.1		✓	
2.3.2		✓	
2.3.3		✓	
2.4.1	✓		
2.4.2		✓	
2.4.3		✓	
2.5.1		✓	
2.5.2		✓	
2.6.1		✓	
2.7.1		✓	
2.7.2		✓	
2.7.3		✓	
2.7.4		✓	
2.7.5		✓	
2.8.1		✓	
2.9.1		✓	
2.9.2		✓	
2.10.1		✓	

8 Supplier Verification Programme

8.1 Description of the Supplier Verification Programme

Not Applicable - No indicators are considered unspecified risk and therefore a supplier verification program is not required.

8.2 Site visits

N/A

8.3 Conclusions from the Supplier Verification Programme

N/A

9 Mitigation Measures

9.1 Mitigation measures

The BP implements a supplier mapping and communication program to monitor the activities of its suppliers across the supply area. The supplier mapping and communication program is applicable to secondary feedstocks as primary feedstocks are tracked by location prior to purchasing. The BP collects the following information using the secondary supplier questionnaire:

- General supplier information including location of mill
- Certification status
- How they collect and track their timber procurement activities – scale tickets, severance taxes
- BMP monitoring of procurement activities
- BMP violations in the review period
- Awareness of land conversion in their sourcing area
- Awareness of HCV's in their sourcing area
- General procurement practices – timber types, species, quality
- Complete counties where timber was sourced for the review period

The BP uses this information, particularly the county list, it collects from suppliers to determine the extent of the supply base area. If the supply base area exceeds the previous year's area, the BP will include the new area during the next assessment period. The BP checks for overlaps with HCV areas to determine where there is overlap. A detailed package is compiled for each supplier to inform them of the findings.

The educational packages provided to each supplier allows them to make better informed procurement decisions. Through sharing of this data, the information becomes more widely known to all actors in the supply chain, effectively increasing the awareness of sensitive areas in the supply base and the threats that pose risks to these sensitive areas.

Over time, the BP can use the information received from its suppliers to develop a risk matrix to determine if any suppliers or sourcing areas require additional mitigations or interventions.

The information provided by the secondary suppliers are reviewed annually and verified by third party auditors to ensure they are complete and correct. The annual information collection and verification exercise reviews the mitigations effectiveness. Any deficiencies are uncovered, and new methodologies are developed to close any uncovered gaps. This system is robust, replicable, reviewed annually and revised if necessary. It requires concerted effort by both the BP and its suppliers and will strengthen over time.

In conclusion, the mitigation measure is effective at identifying where all feedstock is sourced back to the concession of harvest. It is also effective at identifying which suppliers are at risk of non-compliance with an HCV area management strategy. The mitigation process identifies which forest management practices are effective at addressing the HCV concern and is communicated to the suppliers. The information provided by the supplier is verified for correctness and completeness during annual review audits.

9.2 Monitoring and outcomes

2020 marks the first year of the supplier mapping and communication mitigation. The supplier mapping documents will be provided to each supplier on an annual basis and reviewed with the supplier halfway through the audit cycle. The intent of the monitoring exercise will be to determine if supplier behaviour is changing due to the information being provided by the BP. This will confirm the effectiveness of the mitigation measures and will reinforce the work that is being by the BP to make other wood products industry aware of the requirements of the biomass industry.

10 Detailed Findings for Indicators

Detailed findings for each Indicator are given in Annex 1.

11 Review of Report

11.1 Peer review

The Supply Base Report (SBR) was peer reviewed by external subject matter experts who have extensive knowledge of certification requirements throughout the US. The subject matter experts provide expertise in the resource sector across Canada.

11.2 Public or additional reviews

N/A

12 Approval of Report

Approval of Supply Base Report by senior management			
Report Prepared by:	<i>Joe Aquino</i>	<i>Director of Sustainability</i>	<i>Dec 15, 2020</i>
	Name	Title	Date
The undersigned persons confirm that I/we are members of the organization's senior management and do hereby affirm that the contents of this evaluation report were duly acknowledged by senior management as being accurate prior to approval and finalization of the report.			
Report approved by:	<i>Vaughan Bassett</i>	<i>Senior Vice President – Sales and Logistics</i>	<i>Dec 15, 2020</i>
	Name	Title	Date
Report approved by:	<i>[name]</i>	<i>[title]</i>	<i>[date]</i>
	Name	Title	Date
Report approved by:	<i>[name]</i>	<i>[title]</i>	<i>[date]</i>
	Name	Title	Date

13 Updates

N/A

13.1 Significant changes in the Supply Base

N/A

13.2 Effectiveness of previous mitigation measures

N/A

13.3 New risk ratings and mitigation measures

N/A

13.4 Actual figures for feedstock over the previous 12 months

Supply Base

Not Applicable – new mill has not ran as of December 2020.

Feedstock

Not Applicable – new mill has not ran as of December 2020.

13.5 Projected figures for feedstock over the next 12 months

a. Supply Base Area: 183,951,715 (ac) 74,442,684 (ha) (total including all forest types)

b. Tenure by type:

- Private	151,235,223 (ac)	61,202,777 (ha)	85.0 (%)	estimated
- Public	26,716,492 (ac)	10,811,790 (ha)	15.0 (%)	estimated
- Community Concession	- (ac)	- (ha)	(%)	de minimis

c. Forest by Type: 183,951,715 (ac) 74,442,684 (ha) Temperate

d. Forest Management by Type:

- Plantation	44,471,887 (ac)	17,997,150 (ha)	
- Managed Natural	125,531,845 (ac)	50,800,980 (ha)	estimated
- Natural	13,947,983 (ac)	5,644,553 (ha)	estimated at 10% of Managed Natural

e. Certified Forest by Scheme:

	ATFS (ac)	ATFS (ha)	SFI (ac)	SFI (ha)	FSC (ac)	FSC (ha)
- Alabama	2,762,304	1,117,866	2,944,878	1,191,751	670,919	271,512
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- Arkansas	559,518	226,429	3,199,995	1,294,993	1,356,171	548,823
- Tennessee	340,879	137,949	475,216	192,313	100,436	40,645
- North Carolina	406,418	164,472	1,097,424	444,112	190,974	77,285
- South Carolina	1,112,169	450,079	1,126,774	455,990	327,299	132,453
- Georgia	1,924,197	778,696	2,419,141	978,992	81,601	33,023
- Florida	1,082,355	438,014	1,879,588	760,643	126,404	51,154
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- Missouri	127,563	51,623	-	-	238	96
	11,476,804	4,644,502	20,602,147	8,337,400	3,888,363	1,573,566

Feedstock

- a. **Total PDEM volume of Feedstock:** 450,000 – 500,000 st

- b. **Total volume of primary feedstock:** 0 – 20,000 st

- c. List percentage of primary feedstock (g), by the following categories. Subdivide by SBP-approved Forest Management Schemes.

- d. **PDEM:**
 - Primary feedstock certified to an SBP-approved Forest Management Schemes – **0%**
 - Primary feedstock not certified to an SBP-approved Forest Management Schemes – **100%**

- e. List all species in primary feedstock, including scientific name
 - 6. Loblolly Pine (Pinus taeda)
 - 7. Shortleaf Pine (Pinus echinata)
 - 8. Slash Pine (Pinus elliotti)
 - 9. Virginia Pine (Pinus Virginiana)
 - 10. Longleaf Pine (Pinus palustris)

- f. Volume of primary feedstock from primary forest – 0 st
- g. List percentage of primary feedstock from primary forest (i), by the following categories. Subdivide by SBP-approved Forest Management Schemes
 - Primary feedstock from primary forest certified to an SBP-approved Forest Management Schemes – **0%**
 - Primary feedstock from primary forest not certified to an SBP-approved Forest Management Schemes – **0%**

- h. **Total volume of secondary feedstock:** 400,000 – 450,000 st
- i. **Origin:** AL, MS, LA, AR, TX, SC, NC, GA, FL, TN, KY, MO
- j. **Type:** Sawmill residuals, sawdust, bark, shavings, chips

- k. **Total Volume of tertiary feedstock:** 0 odt
- l. **Origin:**