

# Supply Base Report: Panteon 000

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## Completed in accordance with the Supply Base Report Template Version 1.2

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### *Document history*

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# 1 Overview

Producer name: OOO "Panteon"

Producer location: 198097, Russian Federation, Saint-Petersburg, Ogorodniy pereulok, 4, lit. A, pomejenie 3-N  
174416, Russian Federation Novgorodskaya region, Borovichi city, Sovetskaya street, 144

Geographic position: 58°23'34"N, 33°57'15"E

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Company website: [www.panteon-pellet.ru](http://www.panteon-pellet.ru)

Date report finalised: 29/Sep/2016

Close of last CB audit: 08/Oct/2016 174416, Russian Federation Novgorodskaya region, Borovichi city, Sovetskaya street, 144

Name of CB: NEPCon

Translations from English: Yes, Russian and English

SBP Standard(s) used: Standard 2, version 1.0; Standard 4, version 1.0; Standard 5, version 1.0; 5A instruction Version 1.0

Weblink to Standard(s) used: <http://www.sustainablebiomasspartnership.org/documents>

SBP Endorsed Regional Risk Assessment: Not applicable

Weblink to SBE on Company website: Not applicable

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

## 2 Description of the Supply Base

### 2.1 General description

Russia has the largest forest reserves in the world. Their area is more than 800 000 hectares. Forest occupies about 45% of the country's territories and it is about 24% of the world's reserves. The whole forest fund is a public property. A small percentage of forests exists outside the public property and includes city forests, forests managed by Ministry of Defence, forests of specially protected areas, and ex-rural municipalities' forests.

Allowable cut exploitation around the country does not exceed 35%.

At the same time the percentage of untraveled forests is high. It is connected with poor infrastructure in Russia.

Legal entities receive lease rights of different areas and short-term usage. Lease is used more often, and its rental period is usually from 10 to 49 years. Public or municipality owned forest areas leasing contracts, forests plantations sales contracts are signed according to the auctions results. According to the law forest management companies must ensure the conservation, protection and reforestation.

Russian woodworking industry (including forestry, logging, wood processing) plays important role in Russian economy. There are about 60 000 large, small and medium enterprises working in this industry, employing approximately 1 million people. FSC certified forests is about 40 million hectares in Russia (it's 60% of total number of leased forests). In size of certified forests Russia is ranked second after Canada.

First FSC certificates in Russia were issued more than 10 years ago.

### Supply Base OOO "Panteon"

The supply base of OOO "Panteon" includes forests funds in Novgorod and Tver regions. Reporting period of raw materials supply is from 1 January 2016 till 31 August 2016 (the enterprise was built and pre-commissioning works were held; the production was launched on 3 January 2016).

#### **Novgorod region**

The climate in Novgorod region is moderate-continental, close to maritime. Precipitation occurs for 200-500 mm more than it can be evaporated. Annual precipitation is in summer (38%), in autumn a little less (27%). According to the Forestry plan of Novgorod region (Federal Agency of Forestry Federal Budget Agency "Saint-Petersburg Research Institute of Forestry", Saint-Petersburg, 2011) total forest area of Novgorod region by 1 January 2011 is 3912,1 thousands hectares, including area covered with forests - 3367,2 thousands hectares. Now the forests cover 64,4% of regional territory. Executive authority of Russian Federation's region in the forest-related field in Novgorod region is Forestry and Forest Industry Committee of Novgorod region. This Committee's responsibility is the forests situated in the land of Forest Fund, on total area of 3912,2 thousands hectares.

Forests in the Forest Fund Areas (Novgorod region) are divided into protective and exploitable, for the purpose intended. There are no reserve forests in this area. The forests located in the areas of other categories, by function performed can be also related to protective ones.

Protective forests are forests to be exploited for the purpose to preserve environment-forming, water-conservation, protective, sanitary, health and other useful functions of forests with simultaneous use, provided this exploitation is compatible with the earmarking

of protective forests and useful functions they perform. Area of these forests is 838,1 thousands hectares or 21,4% of total forest area in this region.

Exploitable forests are forests to be developed for sustainable and most effective receiving of high-quality wood and other forest resources, processed products, with preserving of useful functions of the forests. These forests cover 2529,1 thousands hectares or 64,6% of total area of total annual forest reserve growth in Novgorod region is 10,29 million cubic metres or 3,05% cub.m/ha.

Forests in Novgorod region in the lands of Forest Fund are 89,8% of total area of all forests, 3,5% of forest area are situated in the lands of Defense and Security and lands of Specially protected natural areas and sites and are not included in the Forest Fund.

Names and area of 23 forest funds included into the group of forestries of Novgorod region: Batetskiy - 118396 ha, Borovichskiy - 212476 ha, Valdayskiy - 212476, Volotovskiy - 57090 ha, Dem'anskiy - 205095 ha, Krestetskiy - 239414 ha, Lyubitinskiy - 131809 ha, Malovisherskiy - 302208 ha, Mariovskiy - 151007 ha, Moshenskiy - 17656 ha, Nabolochskiy - 265582 ha, Novgorodskiy - 143041 ha, Novoselitskoe forestry - 121207 ha, Okulovskiy - 182959 ha, Parfinskiy - 113601 ha, Pestovskiy - 149992 ha, Poddorskiy - 240670 ha, Soletskiy - 79094 ha, Starorusskiy - 184528 ha, Hvoyninskiy - 262888 ha, Holmskiy - 174240 ha, Chudovskiy - 182829 ha, Shimskiy - 118186 ha.

Nowadays the region has the compositing of forests: soft-wooded broadleaf species dominate, they are - 62,5 %, the proportion of coniferous species - 37,%; there are also no hardwood forests- their proportion is only 0,07%. By 1 January 2011 the proportion of new generations of conifers within their species is 31,6%, middle aged - 24,7 %, ripening stands - 23,4%, mature and over mature forest stands - 20,3%. The proportion of young growth among soft-wooded broadleaf species is only 8,8%, middle aged stands - 28,2%, ripening ones - 23,1%. Mature stands of trees prevail - 40,0%.

Exploitation base of mature and over mature forest stands by 1 January 2011 is 194,7% million cubic metres, including 47,6 million cubic metres of coniferous species. Spruce forests prevail there (27,7 million cubic metres), soft-wooded broadleaf species reserve is 147,1 million cubic metres and tend to increase their reserves. The proportion of conifers has increased comparing to 2008, prevalence of Spruce has remained among conifers. The proportion of soft-wooded broadleaf species has remained 75,2%.

The primary type of forest use in Novgorod region is logging. In 2008 clear cuttings were organised in the area of 1718,6 ha with logging 3640,0 thousand cubic metres, including 2443,0 thousand cubic metres in the area of 10889 ha logged by tenants.

Allowable cut utilization (allowable cut 2008 - 8816,6 thousand cubic metres) was 41%.

In 2008 clearing cuts were organized in the area of 11808 ha with the volume of 2465,0 thousand cubic metres, including 1345,1 thousand cubic metres organized by tenants of forest Fund in the area of 8226 ha. Allowable cut utilization (allowable cut 2009 - 8197,0 thousand cubic metres) was 30%.

In 2010 allowable cut around Novgorod region was determined at the volume of 8197,0 thousand cubic metres. Actual logging in 2010 was 3111,4 thousand cubic metres, including 1684,8 thousand cubic metres organized by tenants. Allowable cut utilization was 38%.

By 1 January 2012 allowable cut according to the information of updated database, State Forest Register, Forestry regulation was 6362,9 thousand cubic metres.

Activities for forests reproduction are held in Novgorod region (artificially and combined forest reproduction activities, seed harvesting and purchase of seeds, tending of plantations). Total amount of work is 110053 ha.

Forestry plantations and sowing in the region are completed in the area of 53650 ha (49% of the total amount of reforestation works).

Measures to facilitate natural forest regeneration are held in 56493 ha or 51% of total amount of reforestation works. Reforestation fund was 37300 ha by 1 January 2011.

Tenants of forest fund sites planted and sowed forests in the area of 2523,5 ha in 2010, it is 5,8% of total amount of forest plantations, measured to facilitate natural reforestation were held in 3109 ha (58,3%). Number of reforestation activities had decreased from 2008 to 2010 (almost in all types of activities). Combined reforestation is not carried out.

## **Tver region**

According to the Forestry Plan of Tver region (Ministry of Forestry, Tver region <http://les.tver.ru/>) by 1 January 2013 the total area of forests located in the forest fund lands of Tver region is 4875,6 thousands hectares, forests in lands of Defense and Security - 43,9 thousands hectares, city forests - ,7 thousands hectares, forests in lands in Specially Protected natural Areas - 58,7 thousands hectares, forests in the lands of other categories - 108 thousands hectares.

Forests areas for the purpose intended are distributed in following way:

- \* Protective forests - 2128,6 thousands ha;

- \* Exploitable forests - 2747 thousands ha.

Forestry fund of Tver region includes the following lands of forestry:

Bezhetskoe, Zapadnodvinskoe, Kashinskoe, Krasnokholmskoe, Ostashkovskoe, Staritskoe, Tverskoe, Torzhkovskoe, Toropetskoe, Udomelskoe, Firovskoe.

By 1 January 2012 soft wooded broadleaf species prevailed as a part of forests in this region - 56,9%; the proportion of conifers is - 43,1 %; hardwood forests are practically non-existent (less than 0,02%).

The proportion of new generations of conifers in the forest composition of Forestry fund in Tver region is 22%, middle-aged plantations - 37%, ripening forests - 23%, mature and over mature forests - 18%. Age distribution throughout forests is heterogeneous (varitable).

The proportion of new generations of soft wooded species in the stand structure is only 10%, middle aged species prevail (39%) and mature species - 32%, ripening forests - 18%. Age structure of soft wooded broadleaf species in the forestries is extremely heterogeneous. The climate in Tver region is moderate continental.

By 1 October 2011 lands of forestry fund with the area more than 2,5 million ha. are leased with annual volume of logged wood more than 4,3 million cubic metres. In Tver region about 1000 of forestry enterprises are active.

for the last 35 years cutting area in State Forestries Service of Tver region changed several times: from 4,9 million cubic metres in 1966 to 8,7 million cubic metres in 2010 (by forests being owned by 110 Agricultural organizations). Total amount of forest use of 1 ha of lands covered with forests decreased for this period from 2,53 cubic metres in 1966 to 0,58 cubic metres in 2010.

Logging while cutting in main usage (final yield) was held generally by clear-cutting method, at the same time allowable cut utilization of soft wooded broadleaf forests was constantly decreasing and reached up on average 25% by 2002.

| Annual allowed volume of logging in 2010, thousand cub.m. |               |            |                   |
|-----------------------------------------------------------|---------------|------------|-------------------|
| Forestry                                                  | Allowable cut | Actual use |                   |
|                                                           |               | total      | including tenants |
| Conifers (Spruce)                                         | 3221,3        | 1733,8     | 853,8             |
| Hardwood                                                  | 0,0           | 0,0        | 0,0               |
| Softwood                                                  | 5525,3        | 1079,7     | 764,0             |
| Total                                                     | 8746,6        | 2813,5     | 1617,8            |

Taking into account existing and planned allowable cut utilization rates, the volume of logging in the forests of Tver region must increase by 2018 comparing to 2009 1,7 times, and the level of allowable cut utilization (adopted by Ministry) will be 61%. While allowable cut use in conifers forestries will reach 58,1%, and in deciduous forests - 63,6%.

Analysis of material relating to reforestation works for the period 2006-2010 in Tver region, shows that, reforestation is done firstly through the artificially forest regeneration of conifers planting in after cutting, secondary through natural reforestation (promotion of natural forest regeneration).

In 2010 the analysis showed that the reforestation was processed in the area of 10886 ha. The main type of reforestation was artificial (in 2007-7598 ha, 2010 - 6530 ha, that is 56% and 60% of total amount of reforestation works). Promotion of natural forest regeneration was resumed in 2010 and was 40% (4356ha) of all reforestation works.

OOO "Panteon" does not purchase species of plants listed in Cites and World Conservation Union conventions.

Raw materials for the fuel granules production came without FSc complaints (declarations) during the current reporting period. 14 June 2016 supply chain made by OOO "Panteon" was assessed. 20 June 2016 the report was approved without NCR . 22 June OOO "Panteon" received certificate NC-COC - 025905.

Raw materials for the fuel granules production in the future reporting period, in accordance with FSC nomenclature, will come with the following declarations and in the following proportions:

- \* 100% FSC 100% (we consider as SBP -compliant secondary feedstock);

The main forest-forming species (and percentage of species in average according to our research on purchase) are

- \*50% Pine

- \*50% Spruce

Production of our pellets enterprise is 12000 tons per year. Fuel (wood) pellets of OOO "Panteon" are used as environmentally friendly and safe bio-fuels, that allows:

- \* Increasing energy efficiency of infrastructure (sites) using fuel pellets.

- \* Decreasing the amount of greenhouse gas emissions into the atmosphere.

The number of suppliers of raw materials - 2 (the Tver and Novgorod regions).

## 2.2 Actions taken to promote certification amongst feedstock supplier

For the production of SBP-compliant feedstock (wood pellets), wood is used, obtained from FSC-certified suppliers.

Thus, the management of forestry activities and comply with all FSC criteria, reduced the likelihood of supply of raw materials, harvested unscrupulous supplier. OOO "Panteon" is working with suppliers to explain the voluntary certification requirements, its use and application.

OOO "Panteon" expects that the mutually beneficial and long-term cooperation will be an example for other businesses to promote their products to the market and sustainable forest management in accordance with FSC principles. Provide a description of actions taken to promote certification amongst feedstock supplier.

## 2.3 Final harvest sampling programme

Not applicable. Since all the raw material is a waste sawmill. ООО "Panteon" does not use raw materials deriving from:

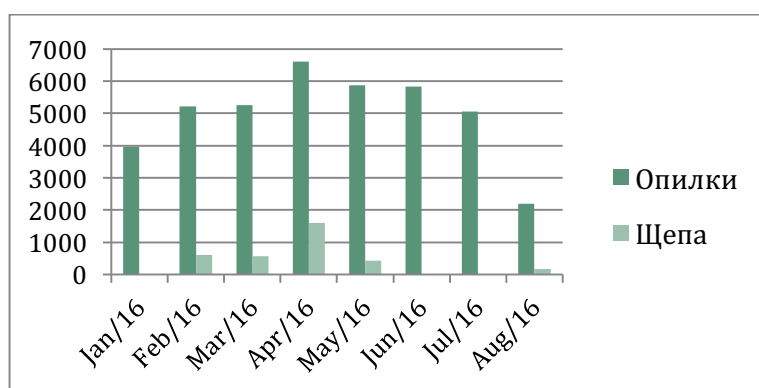
- timber-growing plantations;
- genetically modified trees;
- pristine forests and forests of high nature value;
- Wood controversial (obscure) origin;
- tree stumps.

## 2.4 Flow diagram of feedstock inputs showing feedstock type

For production of pellets ООО "Panteon" used sawdust (Sawdust), and the remains of lumbering (Sawmill residues) to produce pellets and the remains of lumbering (Sawmill residues) for heating dryer drums in the current period without FSC claims in the future reporting period, planned use of raw materials the MIX statements FSC and FSC 100% derived from softwood:

- 50% of Picea abies
- 50% of Pinus selvestris

In the current reporting period, the raw material supply from FSC certified suppliers but without FSC claims prior to June 1, 2016, after - with the FSC 100% statement. Insert flow diagram.



In the future reporting period is planned to supply raw materials from the same suppliers with the following statements FSC: FSC 100% or FSC Mix Credit, as well as potentially FSC Controlled Wood.

## 2.5 Quantification of the Supply Base

### Supply Base

- a. Total Supply Base area (ha): 7 801.9 thousand hectares
- b. Tenure by type (ha): 100% state ownership of the Russian Federation
- c. Forest by type (ha): 100% Boreal
- d. Forest by management type (ha): Managed natural
- e. Certified forest by scheme (ha): 249 373.2 ha of FSC-certified forest

### Feedstock

- f. Total volume of Feedstock: 43 324 m3 bulk in reporting period (FSC non-certified)
- g. Volume of primary feedstock: Not applicable (0 m3)
- h. List percentage of primary feedstock (g), by the following categories. - percentages may be shown in a banding between XX% to YY% if a compelling justification is provided\*. Subdivide by SBP-approved Forest Management Schemes:
  - Certified to an SBP-approved Forest Management Scheme
  - Not certified to an SBP-approved Forest Management Scheme

Not applicable. Used remnants of the wood industry (wood industry residues).

- i. List all species in primary feedstock, including scientific name

Not applicable. Use sawdust (Sawdust), and sawmill residues (Sawmill residues).

- j. Volume of primary feedstock from primary forest. Not applicable.
- k. List percentage of primary feedstock from primary forest (j), by the following categories. Subdivide by SBP-approved Forest Management Schemes:
  - Primary feedstock from primary forest certified to an SBP-approved Forest Management Scheme
  - Primary feedstock from primary forest not certified to an SBP-approved Forest Management Scheme

Not applicable.

- l. Volume of secondary feedstock: 43 324 m3 bulk in reporting period (FSC non-certified)
- m. Volume of tertiary feedstock: Not applicable.

### 3 Requirement for a Supply Base Evaluation

| SBE completed            | SBE not completed                   |
|--------------------------|-------------------------------------|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> |

For production of wood pellets SBP will use FSC certified wood. This means that 100% of production pellets will have a 100% application FSC, FSC MIX, FSC Controlled Wood. Evaluation of the resource base is not required.

## 4 Supply Base Evaluation

### 4.1 Scope

Not applicable.

### 4.2 Justification

Not applicable.

### 4.3 Results of Risk Assessment

Not applicable.

### 4.4 Results of Supplier Verification Programme

Not applicable.

### 4.5 Conclusion

Not applicable.

## 5 Supply Base Evaluation Process

Not applicable.

## 6 Stakeholder Consultation

Not applicable.

### 6.1 Response to stakeholder comments

Not applicable.

## 7 Overview of Initial Assessment of Risk

Not applicable.

## 8 Supplier Verification Programme

### 8.1 Description of the Supplier Verification Programme

Not applicable.

### 8.2 Site visits

Not applicable.

### 8.3 Conclusions from the Supplier Verification Programme

Not applicable.

.

## 9 Mitigation Measures

### 9.1 Mitigation measures

Not applicable.

### 9.2 Monitoring and outcomes

Not applicable.

## 10 Detailed Findings for Indicators

Not applicable.

## 11 Review of Report

### 11.1 Peer review

Expert evaluation report on supply base of the OOO "Panteon" held Kuritsyn Anatoly Konstantinovich LLC "Lesexpert". In general, the report deserves a positive evaluation.

Recommendation.

1. In addition to the information contained in the Report, it is recommended to send a request certified suppliers of sawdust to provide information and areas of origin of the wood used.

Providing such information on request FSC certified buyer provides guidance 40-004-10 FSC-DIR-40-004 guidelines.

2. Description of the forestry system in the whole country, in the Novgorod and Tver region seems superfluous. I recommend to reduce the description of the text without affecting the information content.

Answer.

1. Comprehensive information was obtained on the website <http://info.fsc.org/>

2. Do not believe the reduction of the text without affecting the information content appropriate.

### 11.2 Public or additional reviews

Russian and English version of the report posted on the website of "Panteon» [www.panteon-pellet.ru](http://www.panteon-pellet.ru) for public inspection of all interested parties.

After reading all the interested parties can send their comments, if any, to the email address: [info@panteonspb.ru](mailto:info@panteonspb.ru) and [golovkin\\_dv@panteonspb.ru](mailto:golovkin_dv@panteonspb.ru)

## 12 Approval of Report

| Approval of Supply Base Report by senior management                                                                                                                                                                                                                            |                              |                            |            |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------|------------|
| Report Prepared by:                                                                                                                                                                                                                                                            | Yartseva Karina Vladimirovna | Assistant General Director | 29/09/2016 |
|                                                                                                                                                                                                                                                                                | Name                         | Title                      | Date       |
| The undersigned persons confirm that I/we are members of the organisation'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 finalisation of the report. |                              |                            |            |
| Report approved by:                                                                                                                                                                                                                                                            | Golovkin Dmitry V.           | General Director           | 29/09/2016 |
|                                                                                                                                                                                                                                                                                | Name                         | Title                      | Date       |
| Report approved by:                                                                                                                                                                                                                                                            | [name]                       | [title]                    | [date]     |
|                                                                                                                                                                                                                                                                                | Name                         | Title                      | Date       |
| Report approved by:                                                                                                                                                                                                                                                            | [name]                       | [title]                    | [date]     |
|                                                                                                                                                                                                                                                                                | Name                         | Title                      | Date       |

## 13 Updates

Not applicable.

### 13.1 Significant changes in the Supply Base

Not applicable.

### 13.2 Effectiveness of previous mitigation measures

Not applicable.

### 13.3 New risk ratings and mitigation measures

Not applicable.

### 13.4 Actual figures for feedstock over the previous 12 months

Not applicable.

### 13.5 Projected figures for feedstock over the next 12 months

Not applicable.