



Coal Ports of the Far East of Russia (Khabarovsk and Primorsky Krai) (as of December 31, 2019)

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Operating Coal Terminals



Coal Terminal throughput in the Far East of Russia

According to preliminary estimation, the volume of coal handling for export in Russia through ports of the Far East (not counting ports of Sakhalin Island) in 2018, composed 60.89 mil.t. (+3.82% by 2017).

Coal handling for export in the Far East is performed at the coal terminals of the following port clusters:

- Vostochny (23.80 million tonnes);
- Vostochny (22.77 million tonnes);
- Nakhodka (11.02 million tonnes);
- Pozey (5.53 million tonnes);
- Vostochny (2.76 million tonnes).

Table 1. The volume of coal handling for export through ports of the Far East, MTL

Terminal	2014	2015	2016	2017	2018	2019 expected	2020 expected
Eastern	26.54	29.81	32.55	32.42	32.80	37.7	39.0
Vostochny Port	21.11	22.8	23.55	21.27	24.41	40.0	40.0
East Vlad Terminal	3.10	1.70	4.11	6.15	3.51	3.0	3.4
Italy Port Stevedor Company	2.64	1.40	1.40	1.94	1.35	4.5	5.0
Vostochny Stevedor Company	0.16	0.45	1.21	1.43	1.70	1.0	1.0
Vostochny other port	0.38	0.88	0.22	0.58	2.59	1.2	1.6
Vladivostok	21.34	21.30	24.28	23.74	21.77	24.0	24.0
Ostrogorsk (Mackay)	17.00	18.20	19.50	19.24	19.65	41.0	42.0
Vladivostok terminal export	4.34	3.10	4.80	4.50	4.11	13.0	12.0
Nakhodka	8.47	9.91	11.78	12.64	13.02	17.1	17.1
JSC Nakhodka commercial export (OJSC)	5.56	6.17	8.07	6.35	8.06	8.0	8.0
Avdiy Terminal	1.27	1.89	2.19	1.77	2.99	4.0	4.0
Arti Enterprise	0.77	1.04	1.64	1.71	1.86	1.0	1.0
Dalnonakhodka	0.40	0.81	1.08	1.28	1.08	6.5	1.1

Vladivostok/Vostochno-Tsukhovo Factory	0.22	0.22	0.34	0.53	0.86	1.0	1.4
Vladivostok Commercial Port	—	—	—	0.11	0.13	0.3	0.3
Comnet	0.22	0.04	0.71	0.33	0.27	0.5	0.3
Project	5.12	5.05	7.07	3.01	3.53	8.0	12.0
Vladivostok	7.47	9.52	1.08	2.08	2.76	2.9	2.8
Vladivostok Sea Fishing Port	1.21	0.44	0.91	1.11	1.46	1.6	1.6
Vladivostok Commercial port	0.22	0.08	0.17	0.75	1.28	1.3	1.3
Total	62.90	66.61	76.56	66.61	80.89	140.7	145.0
Coast Terminal Projects						40.8	129.0
Seamless Transport of Railway	—	—	—	—	—	17.0	24.0
Samudsk (SSU)	—	—	—	—	—	13.3	20.8
Vera Port (Siberian Maritime)	—	—	—	—	—	10.0	50.0
Multi-purpose Manufacturing and Handling Terminal Seve	—	—	—	—	—	10.0	20.0
Far East Vostochno Port (FDIC/Renewal)	—	—	—	—	—	—	18.0
Trans Energy Industrial Corporation	—	—	—	—	—	3.5	—
Sikhoy Duc / Terminal A (Siberian Maritime)	—	—	—	—	—	8.0	15.0
Pacific Bulk Terminal (Siberian Maritime)	—	—	—	—	—	3.0	15.0
Total (including coal terminal projects)	62.90	66.61	76.56	77.81	80.89	201.7	274.0

It is estimated that the volume of coal handling through ports of the Far East will comprise 145 million tones by 2030. In case of the implementation of "Vostochno-Tsukhovo", "Vera Port", "Far East Vostochno Port", "Sikhoy Duc / Terminal A", "Samudsk", "FDIC/Renewal", "Pacific Bulk Terminal" coal terminal projects the volume of coal handling can be increased by 129 million tones up to 274 million tones of coal per year by 2030.

Subsector: Within 2010-2018 the volume of roof hoisting through ports of the Far East increased 2.46 times from 27.90 billion tonnes in 2010 to 30.83 billion tonnes in 2018 (see Appendix, p. 39).

Vostochny



Vostochny port cluster

Vostochny port cluster throughput in 2020 is estimated to comprise 33.05 million (+4.3% of 2017).

Vostochny port cluster includes the following terminals:

- JSC Vostochny Port (VP);
- LLC East Dred Terminal (EDT);
- LLC Maly Port Stevedor Company (MP);
- LLC Vostochny Stevedor Company (VSK);
- LLC Vostochny Timber Port (VTP).

Table 2. Coal handling in million t.

Terminal	2014	2015	2016	2017	2018 expected	2025 expected	2030 expected
VP	21.39	22.8	22.59	23.22	24.42	45.0	45.0
EDT	2.10	3.70	4.13	4.15	4.82	5.0	5.0
MP	2.84	2.80	2.62	2.84	2.55	4.5	5.5
VSK	0.18	0.65	1.23	1.83	1.70	2.0	2.0
VTP	0.38	0.08	0.32	0.58	0.59	1.2	1.5
TOTAL:	26.54	29.83	32.05	32.42	33.80	57.7	59.0

It is assumed that the volume of coal handling through Vostochny port cluster will comprise 59.0 million tons by 2030. In case of the implementation of the "Seyan" and "Sudvoy Dug / Terminal A" coal terminal projects (page 157) the volume of coal handling can be increased by 22 million tons up to 81.0 million tons of coal per year by 2030.

Reference: Within 2010-2018 the volume of coal handling through government-owned ports increased 2.3 times from 46.22 million tons in 2010 to 107.63 million tons in 2018 (see Appendix A. 69).

ISC Vostochny Port

The largest stockpiling company in Russia for coal handling by means of conveyor equipment. The volume of coal handling for export is 34.4 million tons (in 2016), which accounts for 30% of the total supply of Russian coal for export through the ports of the Far East.

By 2030 the volume of coal handling by ISC Vostochny Port will comprise 45 million tons per year.

Location: Primorsky Krai, Vostochny Port, Woznegi Bay.

Railway station: East Nakhodka.

Structure of ISC Vostochny Port:

- Specialised coal terminal (PPK-3);
- Universal reloading complex (PPK-13);
- Tug fleet.

Characteristics of terminal of ISC Vostochny Port (Table 3-5)

Table 3. Specialised coal terminal (PPK-3)

Coal handling Throughput capacity	Planned/Scheduled: 12.7 mil t per year Factual: 10.7 mil t per year
Maximum Storage Allowance	600 000 t (14 stockpiles)
Coal handling procedure	Reclar/unloading <ul style="list-style-type: none">• Reclar dumpers loading <ul style="list-style-type: none">• Singlestackers
Equipment	<ul style="list-style-type: none">• 2 tandem railcar dumpers• 4 detrossing devices• 4 reclaimers, 2 stackers• 4 singlestackers• 4 crushing and screening facilities
Berth	2 berths, length 2*263.4 m permissible draft 16.0
DWT	Up to 150 000 tonnes

Magnetic cleaning:	3E magnetic separators (compound magnetic cleaning)
Unloading from railcars: based on agreement with RR (Russian Railways):	Summertime: 810 railcars per day Wintertime: 810 railcars per day

Table 4. Unload/reload capacity (PPS-1)

Coal handling Throughput capacity:	Planned/Scheduled: 3.0 mil.t per year Actual: 3.0 mil.t per year
Maximum Storage Allowance:	250 000 tonnes (# stockpiles)
Coal handling procedures:	Railcar unloading: <ul style="list-style-type: none"> • crane-manipulators Loading: <ul style="list-style-type: none"> • portal cranes
Equipment:	<ul style="list-style-type: none"> • 17 portal cranes, lifting capacity 15-100 tonnes • 3 crane-manipulators • 4 telescopic stackers, 12 radial stackers • 3 crushing and screening facilities • 10 coal screeners • 4 feed hoppers • excavators, bulldozers, loaders and other handling machinery
Berths:	4 berths, combined length 800 m permissible draft 11.0-12.2 m
DWT:	up to 70 000 tonnes (Panamax class)
Magnetic cleaning:	20 magnetic separators installed: (crushing and screening facilities, coal screeners and feed hoppers (compound magnetic cleaning)

Unloading from railcars based on agreement with RR (Russian Railways)	summer time: 200 railcars per day winter time: 200 railcars per day
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Table 5. Separation cost estimate - JVT at site

Coal handling Throughput capacity	Planned/Scheduled: 16.5 mil.t. per year
Maximum Storage Allowance	750 000 tonnes (4 warehouses)
Coal handling procedure	Railcar unloading <ul style="list-style-type: none"> • Railcar dumpers • Loading • Empoectors
Equipment	<ul style="list-style-type: none"> • 2 tandem railcar dumpers • 2 dehoisting devices • 8 reclaimers, 2 stackers • 2 crushers • 2 crushing and screening facilities
Berths	1 berth, length 300 m permissible draft: 16.0
QWT	Up to 150 000 tonnes
Magnetic cleaning	24 magnetic separators (compound magnetic cleaning)
Unloading from railcars based on agreement with RR (Russian Railways)	Stage 1: 580 railcars per day* Stage 2: 530 railcars per day* *(according to the current specifications of RR)

Table 6. Coal handling investment, mil.t.

Terminal	2014	2015	2016	2017	2018, expected	2025, projected	2030, expected
VP	21.33	22.8	23.5 5	23.22	24.43	45.0	45.0

LTD East Ural Terminal

Location: Vladivostok port (Khrangai Bay)

Owners: LTD Transchemexport - 92%, M. Akeyev Corporation - 8% (LTD Transchemexport is a 100% owner)

General Director: M. Vostrikov S.

Railway station: East Nakhodka

Coal handling started in 2012. Till that time the terminal performed chemical fertilizers handling.

By 2030 it is estimated that the volume of coal handling in LTD East Ural Terminal will compose 5.0 mill.tones per year.

Table 3. Characteristics of the terminal

Coal Handling Throughput Capacity	scheduled volume: 2.5 mill.t. per year actual: 4.51 mill.t. per year
Maximum Storage Allowance	250 000 t. (including 100 000 t. – sheltered installations)
Coal handling procedure	Ballast unloading <ul style="list-style-type: none">• Dumpers loading <ul style="list-style-type: none">• Conveyor belt with skiploaders
Equipment	2 wheelloaders (capacity of 400-500 tones per hour), mobile cranes/ cranes, wheel loaders, loading and unloading devices
Berths	1 berth (with 600 m length) 200 m perpendicular berth (6.5)
DWT	up to 40 000 tones
Magnetic coating	2 magnets (compound coating)
Co-loading from railway based on agreement with RR (Russian Railways)	summer time: 200 carriages per day winter time: 300 carriages per day

Table 8. Cash handling in the economy, mil. €

Year	2014	2015	2016	2017	2018 (annual)	2019 (annual)	2020 (annual)
(lit)	2.10	2.29	9.13	9.10	6.52	5.6	3.9

Main exporters: Sella, Kiv, Saksingyysli.

(Note: no deposits + reserves accumulation in winter time (RS)).

LTD Maty Port Stevedor Company

Location: Khashtsky Krai, Vostochny port, Wranjel Bay.

Owners: affiliated with Siberian Coal Energy Company entities

Railway station: East Nekhodka

By 2020 IFC estimates that the volume of coal handling at LTD Maty Port Stevedor Company will increase to 5.5 million tonnes per year.

Table 9. Characteristics of the terminal

Coal Handling Throughput capacity	scheduled/planned: 2.0 mil tonnes per year factual: 2.55 mil tonnes per year
Maximum Storage Allowance	60,000 tonnes
Coal handling procedure	Grab discharge
Equipment	Portals, cranes, manipulators, telescopic stackers, crushing and screening devices
Berths:	1 berth (berth No. 31.54.28), total length 353 m permissible draft 8.0 m LOA 195 m Beam 27 m
QWT:	up to 25,000 tonnes
Magnetic cleaning	6 magnets, installed in crushing and screening facilities, screening facilities, telescopic stackers (compulsory magnetic cleaning)
Unloading from railcars based on agreement with RR (Russian Railway)	summertime: 130 railcars per day wintertime: 150 railcars per day

Table 18. Coal handling for export, mt

Period	2014	2015	2016	2017	2018 expect- ed	2019 expect- ed	2020 expect- ed
all	2.68	2.69	2.82	2.81	2.55	3.1	3.1

Main exporter: Siberian Coal Energy Company

Impacts of technical developments

It is expected to carry out studying works up to draft of 2.5 m (berths and access canals) which will allow to accommodate vessels with lifting capacity up to 20 mt.

Technical requirements

No waste treatment facilities to ensure environmental safety and security of the port waters. It is possible to be held accountable based on art. 8.43 of Administrative Offenses Code of the Russian Federation.

LTD Vostochny Stevedor Company

Location: limits container terminal VSC in Vostochny port (Wargal Bay)

Owners: Global Ports company. Main beneficial owner - Mr. Aleksey Stashin, Mr. Konstantin Mikhalov and Mr. Andrey Filatov

General Director: Mr. A. Dudko

Railway station: East Nabvodka

Coal handling started in 2011

By 2030 it is estimated that the volume of coal handling in LTD Vostochny Stevedor Company will compose 2.0 million per year

Table 12: Characteristics of the terminal:

Coal handling Throughput capacity	scheduled/planned: 1.0 mil t, per year factual: 1.70 mil t, per year
Maximum Storage Allowance	120 000 tonnes
Coal handling procedure	Railcar unloading <ul style="list-style-type: none">• crane-manipulators Loading <ul style="list-style-type: none">• Telescopic stackers
Equipment	Wheel manipulators, Telescopic stackers, stackers, bucket loaders
Berth	1 berth (with 40 ft. length 300 m) permissible draft 11.7 m
OWT	Up to 45 000 tonnes
Magnetic clearing	3 magnets, installed on telescopic stackers and feed hoppers (two-stage magnetic clearing)
Unloading from railcars based on agreement with RR (Russian Railways)	summer time: 30 railcars per day winter time: 63 railcars per day

Table 12. Coal handling in the terminal, mt.

Terminal	2014	2015	2016	2017	2018 est(2016)	2025 est(2016)	2038 est(2016)
YSC	0.18	0.45	1.23	1.83	1.70	2.0	2.9

Main exporters: SSGamet, Kamsar, Siberian Airlines

Notes:

- Grab discharge causes initial dewatering (DR), its dehydrating + rainfall accumulation during wintertime (RR), coal transporting from the warehouse to the berth by trucks – additional dusting and coal spillage.
- Environmental restraints: to ensure environmental safety and security of port waters waste treatment facilities are required to be constructed.
- Shiploading is performed by means of telescopic stackers (superior). Due to insufficient lengths of those telescopic stackers and leveling of the bulk in the ship's hold, it takes more time to load a vessel.

LTD Vostochny Timber Port

Location: Vostochny port (Waringal Bay)

Owners: Mr Nikolay Bolotnikov, a head and a co-owner of number of assets in timber industry of the Altai Region (JSC Zeynol LPK, etc.)

General director: Mr V Bolotnikov

Coal handling started in 2008. Till 2008 the terminal performed timber cargo handling.

By 2010 it is estimated that the volume of coal handling at LTD Vostochny Timber Port will compose 1.5 million per year.

Table 1.3. Characteristics of the terminal

Coal handling Throughput capacity	Scheduled/planned: 0.2 mil t per year Factual: 0.53 mil t
Maximum Storage Allowance	25 000 t
Coal handling procedure	Grab discharge
Equipment	Front loaders, screening equipment
Berths	2 berths (berth №31, berth №32), length: 2x150 m permissible draft: berth №31 - 6.0 m, berth №32 - 7.8 m
OWT	berth №31 - up to 8 000 t, berth №32 - up to 12 000 t
Magnetic cleaning	2 magnets installed on screening devices (two-stage cleaning)
Unloading from jetties based on agreements with RRT (Russian Railways)	summer time: 55 railcars per day winter time: 55 railcars per day