

# Fuel Oil Glut Threatening Modernization

By [The Moscow Times](#)

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A swelling ocean of cheap and dirty fuel oil pouring out of Russian refineries and onto world markets tells the story of misaligned tax policies and perverse incentives that jeopardize President Vladimir Putin's campaign to modernize industry.

Despite repeated attempts to fix its tax system, export incentives that are meant to be phased out by 2015 still make it more profitable to export cheap fuel oil — the detritus of the refining process — than the crude from which it is made.

The result has been a glut of exports of the lowest-value refined oil product and very slow progress in improving Russia's creaky refining industry, which has ballooned into the world's third largest to meet domestic demand for gasoline.

The policies hit Moscow's export revenues and effectively subsidize refiners everywhere in the world but Russia, who benefit from cheap Russian feed stock they can further refine into more expensive gasoline or diesel.

"These fuel oil exports undermine demand for, and the value of, Russia's own medium sour Urals crude," said Andrew Reed from U.S.-based ESAI Energy consultancy.

Fuel oil, used for heating and marine fuel, is the residue left over when refineries produce more expensive products like gasoline, diesel and jet fuel.

It is the only major refinery product that is cheaper than the crude from which it is made, and demand for it has declined sharply in recent years as environmental regulations tighten around the world and power plants shift to cleaner natural gas.

## **Relic From the Past**

A sophisticated modern refinery will usually limit fuel oil to no more than about 15 percent of output. But in Russia, where many refineries still date back to the days of supporting the heavy fuel needs of the Soviet Red Army, fuel oil accounts for more than a quarter of refinery output.

Determined to encourage refining, Russia has long subsidized fuel oil by charging far lower duties to export it than crude. That meant there was little incentive for refiners to invest in upgrading their technology to reduce the proportion of fuel oil they produced.

Russia tried to improve the situation in 2011 by introducing a new tax system that raised the duty on fuel oil exports to 66 percent of the duty on crude, from 45 percent. Moscow also set a target date of 2015 to eliminate the subsidy altogether and equalize the duties on fuel oil and crude.

But statistics show that so far the tax changes have yet to prod improvements to the technology of Russian refining.

Under a formula for measuring refining sophistication that deducts fuel oil output from total processing, Russia's score has stayed virtually unchanged over the past five years, near the bottom of the international league table among the least sophisticated big refining countries in the world.

The government had hoped that between 2011 and 2015 refiners would build equipment capable of producing a greater proportion of higher-value products, like the most advanced plants in China or India. However, modernization, estimated by Bank of America Merrill Lynch to cost \$31-\$37 billion, is massively behind schedule.

State major Rosneft alone has a \$25 billion upgrade plan, but many projects will not be finished before 2017 at the earliest.

Big refiners warn that they will not be able to modernize by 2015. The situation is worsened by excessive technical regulations and high duties on imported equipment, issues seen as endemic in Russia and which thwart modernization.

Under pressure from an industry not yet ready for the change, officials now suggest they may abandon their 2015 target for eliminating the subsidy for fuel oil exports, letting firms continue to profit from the glut at the tax collector's expense.

"The government has begun having doubts with regard to leveling off fuel oil and crude duties from 2015," Deputy Prime Minister Arkady Dvorkovich said in May.

## **Government in Doubt**

Energy taxes, including oil export duties, account for half of Russia's budget revenues. In 2007, it needed oil prices of \$34 a barrel to balance its budget. Now it needs \$115 due to heavy social spending.

For years, Russia subsidized its refining industry at the expense of oil production through lower export duties on products. Annually such subsidies amounted to up to \$20 billion, according to research by Skolkovo, a Russian business school.

The aim was to encourage 25 plants scattered across the world's largest nation to produce more gasoline. Putin criticized oil firms for domestic gasoline shortages in 2011.

But with fuel oil subsidies still in place, the easiest way for outdated plants to boost gasoline output was to increase overall processing rather than improve efficiency, leading to higher output of unnecessary fuel oil.

Domestically, Russia needs a lower proportion of fuel oil for an economy with a lot more gasoline-powered passenger cars and less of a tilt towards heavy industry than in Soviet times.

"Higher fuel oil exports are a reflection of Russia's move towards a higher use of clean products," said Michael Dei-Michei from JBC Energy.

Since 1999, Russian daily oil processing has risen by 2 million barrels to 5.3 million in 2012. To slake its rampant thirst for gasoline and diesel, Russia now refines half the crude it produces. Only the United States and China, the world's two largest oil consumers, refine more oil.

Between 2008 and 2012, refining volumes rose 12 percent, while output of fuel oil rose even more, by a fifth. Exports of fuel oil jumped 45 percent to 1.1 million barrels per day — almost enough to meet Europe's entire fuel oil demand, or the annual needs of 80 large power plants.

"Russia has been exporting fuel oil volumes which are not required at home. Utilities here are not short of it," said Alexander Sakovich, an oil industry specialist at the Finance Ministry.

Small and simplistic refineries, known as "teapots" in industry jargon, have mushroomed in recent years. Their fuel oil output doubled about 150,000 barrels per day since 2008.

"When the new tax system was introduced in 2011, it was assumed that small refineries would become unprofitable. Meanwhile the segment is still booming," Skolkovo said in a research report.

## **Helping Others**

The global energy market is shifting in ways that could be helpful for Russia. The U.S. shale revolution has created a global surplus of previously scarce and expensive light oil and a

shortage of previously neglected heavy, sour barrels, like Russia's Urals blend.

As long as Russia is producing a glut of cheap fuel oil, it puts downward pressure on the price of Urals, since the fuel oil can be substituted for the heavy crude in a mixture used as feed stock for refineries.

"Russian fuel oil exports are the perfect complement to increased supply of U.S. light sweet crude," said Reed of ESAI. "In the past Russian leaders have criticized the discount of Urals. But inadvertently, their own policies undermine Urals."

Global demand for fuel oil as heating and marine fuel has dropped steeply in the past decades due to environmental regulations and as utilities switched to gas.

Europe's demand of 1.3 million bpd for heating and refining feedstock is expected to fall by more than 10 percent by 2016, according to Merrill Lynch.

Its use as marine fuel is also expected to shrink due to emissions regulations, which encourage higher use of diesel.

This will throw a lifeline to European refineries, which are traditionally oriented towards bigger diesel output and benefit from cheaper fuel oil as a feed stock. More technologically advanced U.S. and Asian refiners will benefit even more as they will be able to buy Russian fuel oil not needed in Europe.

"Just look at U.S. Gulf Coast refiners. They can take more light crude, blend it with Russian fuel oil, and cut their use of [more expensive] heavy crudes," said Reed.

Latest shipping data also confirms the trend. The United States and Asia imported 7 and 15 large Suezmax fuel oil cargoes respectively so far this year from the Mediterranean, up from 9 and 12 in the whole of last year.

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