Press release: New innovation makes wind turbine maintenance easier

Energiservice in Skellefteå has developed a brand new product which will make it much quicker and easier to change the oil in wind power turbines.

The oiled gearbox of a wind turbine has about 500 litres of oil which needs to be changed every three to five years. The turbine is at a height of 90-150 meters and currently both the old and new oil must be carried up and down the turbine in large, heavy barrels. It is a time-consuming process which can pose risks to both the employees handling the oil and to the surrounding environment. The new oil also needs to be heated before the turbine can be switched back on, which can result in stoppages of up to two days.

To address this, the maintenance company Energiservice Skellefteå has developed a brand new product which will make it both safer and quicker to change the oil.

"We have designed an oil change wagon which has tanks for waste oil and clean oil. Two hoses are drawn from the wagon up into the turbine, allowing us to drain the old oil from the gearbox and pump in the new oil in a single closed system. This means that our employees do not have to do any heavy lifting or come into contact with the oil," says Olov Boman, CEO of Energiservice Skellefteå.

The wagon can also heat up the oil to its working temperature before it is transported to the turbine. While it is being heated, the oil is also filtered to improve its quality and increase its lifespan in the turbine.
"The oil change wagon allows us to change the oil of two turbines per day, instead of it taking two days to change the oil in a single turbine. The wagon can also be pulled on skis, behind a tracked vehicle for example, allowing us to keep working the year round," says Olov Boman.

Energiservice Skellefteå is part of the Skellefteå Kraft group which over the past ten years has been at the forefront of developing new technology to allow wind power turbines to be used in cold and icy climates.

"Efficient maintenance with high quality, environment and safety standards is very important for our ability to harness wind power, not least in Arctic climate conditions. Large-scale, land-based wind power production in cold climates has a major part to play if Sweden is to reach its set national goals regarding fully renewable energy systems," says Hans Kreisel, CEO of the Skellefteå Kraft group.