

Arctic Whisper - First fast-charging hybrid electric bus debuts in Sweden

April 19 2011, by Bob Yirka



(PhysOrg.com) -- The Spanish "green" technology firm, Opbrid, has delivered a new kind of diesel-electric hybrid commuter bus to the northern Swedish town of Umea for initial testing of its over-head fast charging vehicle, dubbed the "Arctic Whisper." The name comes from the fact that it is almost silent as it makes its way around and the fact that onboard it's so quiet, you can actually whisper to a fellow traveler.

The engineers from Opbrid took a unique path in developing the bus, which is based on technology originally developed for electric cars. Instead of just <u>charging</u> the bus overnight and trying to figure out how to



keep it going for 18 hours, they opted instead for adding short bursts of charge at the beginning and/or ends of each bus route. The Arctic Whisper is fully charged every night, but is given periodic burst charges at the end of each run by means of a long-bar charging station. When the bus pulls into such a station, the driver flips a switch that raises the leads that lay atop the bus to meet the charging bar as it is lowered from above. The whole process takes as little as five minutes, and then the bus is on its way again and only works because of the specially designed very fast charging battery technology designed by Epyon power company.

The charging stations don't have to charge the bus all the way, just enough to keep it going for 18 hours of bus ridership. For longer routes or when unforeseen conditions arise, the bus is also equipped with a diesel generator to automatically charge the batteries en-route.

Executives at Opbrid are touting their new bus as the obvious solution to urban pollution problems, citing the fact that the bus produces zero emissions almost 100% of the time; and while this might be an accurate assessment for a bus that runs in Sweden, a country at the forefront of using alternative ways to produce electricity, the argument might not fly so easily in other countries who still rely very heavily on coal fired plants to produce most of their electricity to run such a vehicle as the Arctic Whisper.





At any rate, so far, it appears that riders, drivers and everyone else in Umea is quite happy with the initial results. Passengers don't get jerked around during gear shifting since the bus doesn't have gears, and they can ride in relative quiet. Drivers too, apparently are very happy to not have to shift gears all the time, reporting far less fatigue after a shift. And pedestrians and other drivers on the road report far less noise and pleasure at the sight of a commuter bus that isn't belching burned diesel fumes.

More information: www.opbrid.com/

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