How to make winter maintenance more Energy efficient

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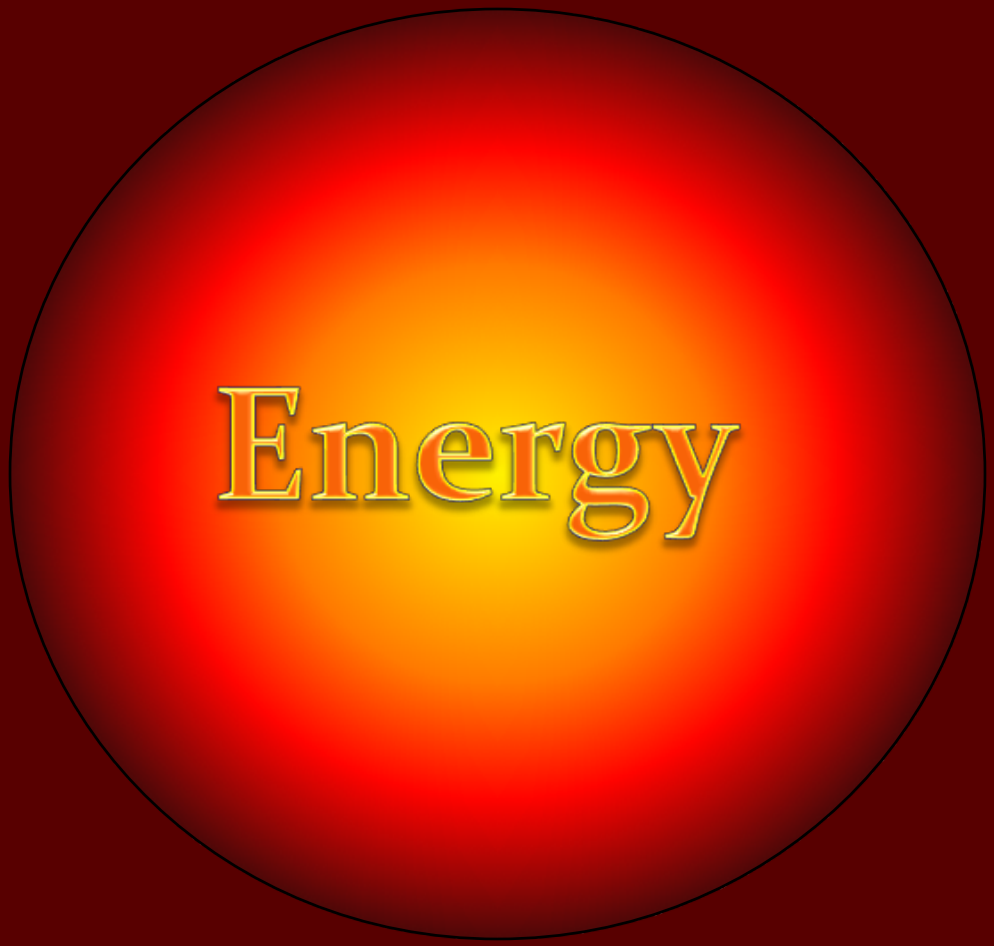
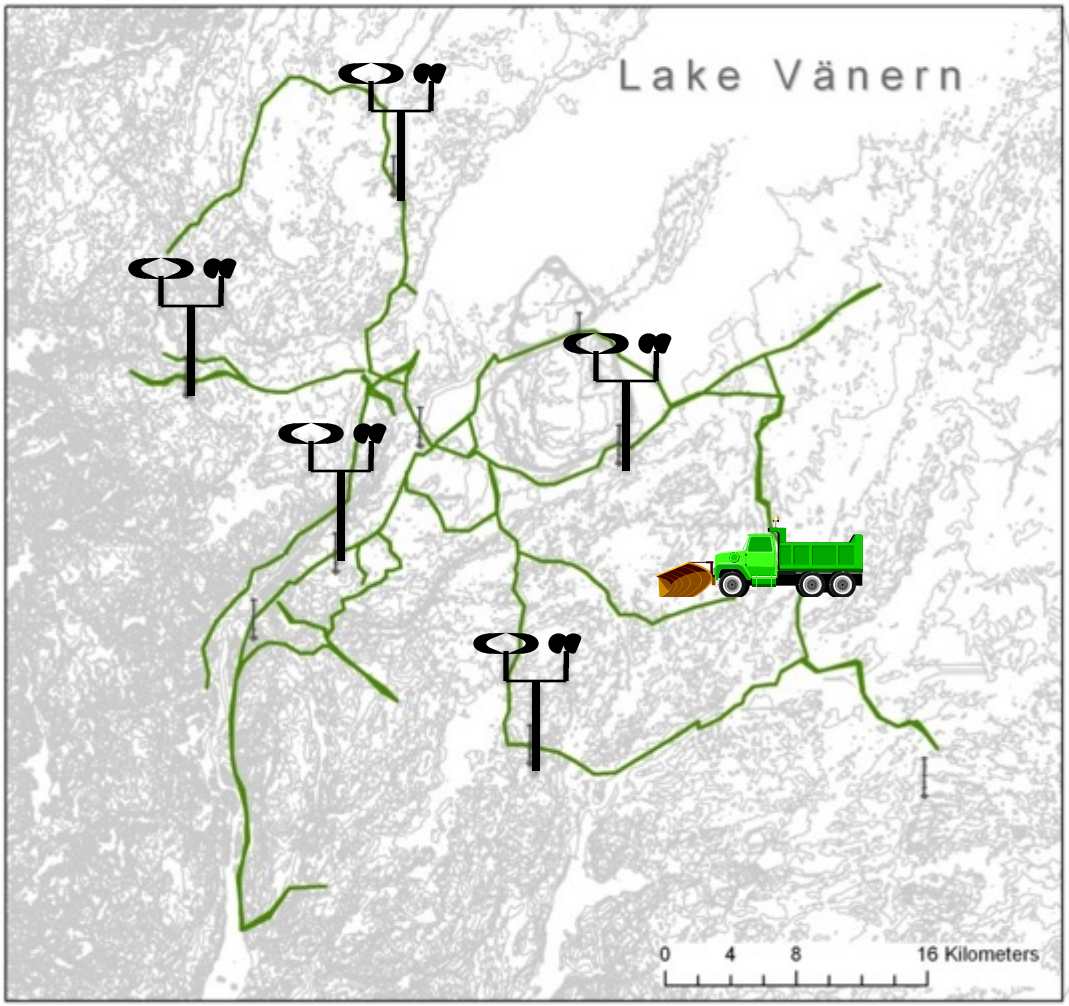

Energy

Energy efficiency

1st step

Understanding how well winter maintenance (i.e. Salting) is performed according to the weather

The maintenance district



RWIS – preset warnings about slippery conditions

Moderate Rime

Severe Rime

Precipitation with tempratures less than 1°C

Temperature fall below 1 °C and Precipitation during the last 12 hours

Weather Match

+

= Days of slippery indication

6 hour intervalls

4 time spans

The results

Table 1, Presentation of questions and distribution in percentage of winter maintenance and weather match.

Questions	Abbreviation	Part of winter slippery indication (%)
All **M**aintenance agrees with **A**ll **R**WIS in district	AMAR	27
All **M**aintenance agrees with **S**ome **R**WIS in district	AMSR	30
All **M**aintenance does **N**ot agree with any **R**WIS	AMNR	15
No **M**aintenance but **A**ll **R**WIS in the district	NMAR	3
No **M**aintenance even though **S**ome **R**WIS	NMSR	9
Some **M**aintenance agree with **S**ome **R**WIS	SMSR	11
Some **M**aintenance but **N**o **R**WIS	SMNR	5

Energy savings potential

- 15% of the about 200 events
- 425 km of roads,

} 30 events, 12750 kilometres winter

- Assumed fuel consumption = 3,5 l/10 km.
- 3,5 * 42,5 = 149 litres of fuel saved. (1769 gallons)
- 4462,5 litres of fuel saved /winter in the district. (53064 gallons)

Thank you for your attention!

Questions?

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