

GE Vision for Smart Grid:

to make way for...

... Integration of stochastic renewable energy sources such as wind



... Step into a new era of interaction with consumers



... Houses and homes that are smart and energy-efficient



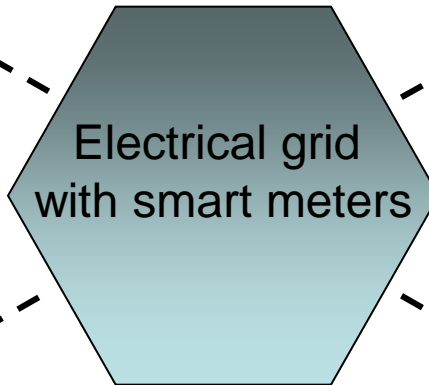
... Large-scale use of electric vehicles



... connection of micro-generation



... Energy storage as a buffer and stabilizer



Charging history for electric vehicles

Start project LIFE



Start project ELVIIS



First in Sweden with commercial charger



Ten first cars VCC, used for user-evaluation



Rapid charge of cars



Rapid charge of plug-in buses



2008

2009

2010

2011

2012



City Distribution electricity trucks



Electrified routes trucks



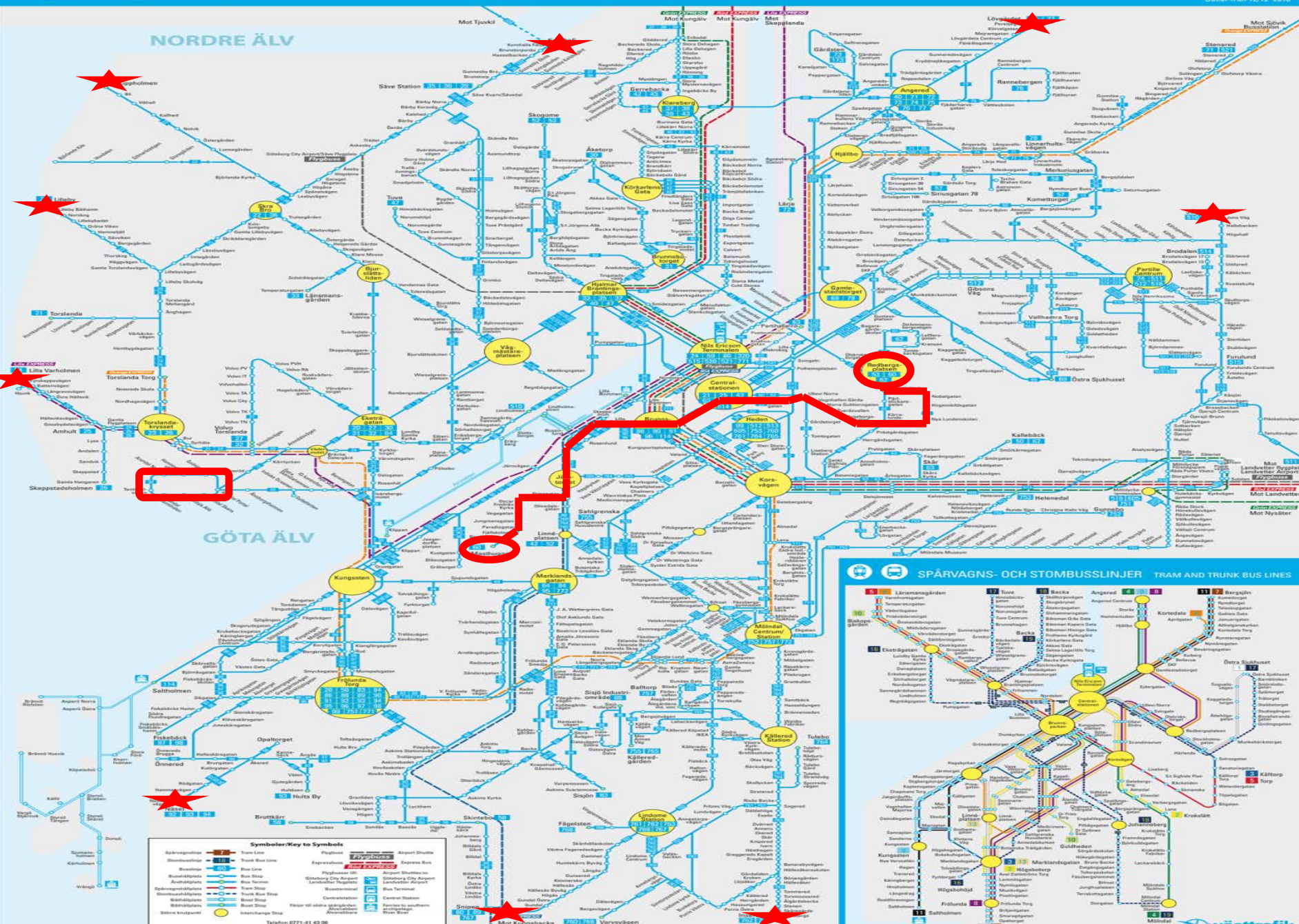
LINJENÄTET/ROUTE MAP

SPÅRVAGN OCH STOMBUSS PÅ LILLA KARTAN

Gäller från 12/12 2010

NORDRE ÄLV

GÖTA ÄLV



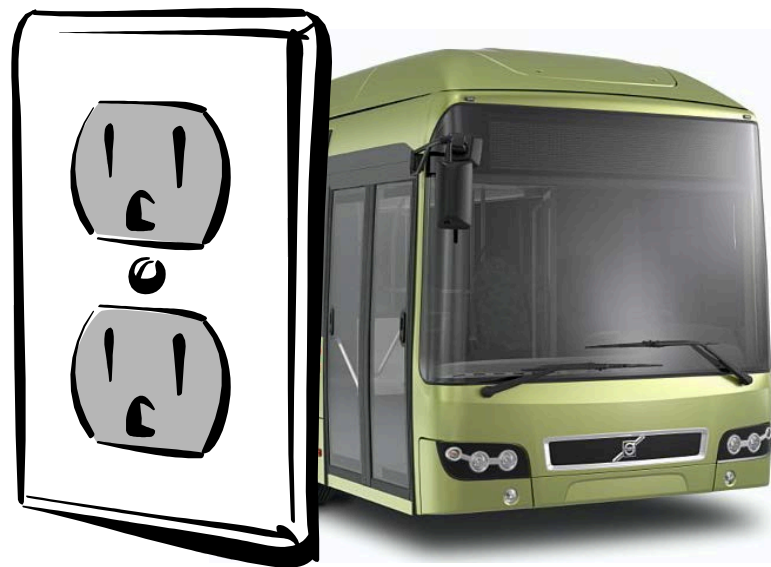
Symboler/Key to Symbols		Förkortningar/Abbreviations	
	Tram Line		Express Bus
	Trunk Bus Line		Airport Shuttle
	Bus Line		Airport Shuttle to Lärsviken
	Bus Stop		Airport Shuttle to Landvetter Airport
	Transfer Bus Stop		Express Bus Stop
	Trunk Bus Stop		Connection
	Bus Stop		Ferry to other parts of the city
	Transfer Stop		Ferry to southern part of the city
	Interchange Stop		Interchange Stop

SPÅRVAGNS- OCH STOMBUSLINJER TRAM AND TRUNK BUS LINES



Plug-in City Bus

- Average distance 15-25 km end station to end station
- Time at end stations 5-10 minutes
- Plug-in Bus 15 kWh useful electric energy.
- Charging power 100-200 kW
- Good business! System payback less than 4 years @ 2014 years estimated component and energy prices



Electro mobility at Volvo Bus

- Hybrid buses
- Plug-in hybrid buses
- Fully electric buses

Driving distance with 5 l diesel or equivalent energy

Diesel 10 Km

Alt fuel 7,7 Km

Hybrid 14.2 Km

Plug-in Hybrid 25 Km

Full electric (Normal bus) 34 Km



Questions...

