

7^{es}

SONORE

Assises nationales de la qualité de l'environnement

14-15-16 octobre 2014 / Cité Centre de Congrès de Lyon



Brault



RETOUR D'EXPÉRIENCE SUR L'EXPLOITATION D'UN CAMION 16 TONNES ÉLECTRIQUE EN LIVRAISON URBAINE

Christophe VACQUIER

PROPOSE THE RIGHT TRANSPORT SOLUTION AT THE RIGHT PLACE, WITH THE RIGHT ENERGY



OPTIFUEL
SOLUTIONS

ELECTRIC

NATURAL GAS

BIODIESEL



NEW RANGE
80 dB(A)
NOISE
REDUCTION BY
32 in 30 years

zer0
EMISSION
63 dB(A)
PIEK

NOISE
POLLUTION
-2dB(A)

UP TO
B100
COMPLIANT



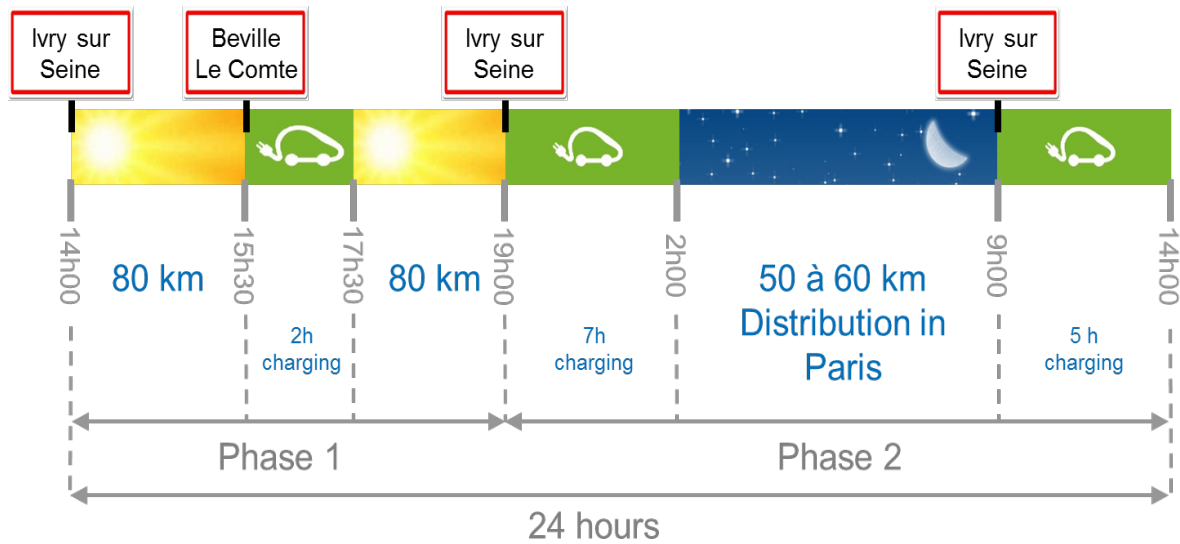
PREPARE THE FUTURE FULL ELECTRIC DEMO TRUCKS FIELD TEST WITH KEY CUSTOMERS



FOCUS FIELD TEST GUERLAIN MEDIUM DUTY 16T ELECTRIC TRUCK



Features	Specifications
Wheelbase	5600 mm
Gross weight	16,3 t
Payload	6500 kg
EM	Electrique LQ 160P
Power/torque	103 kW / 450 Nm
Gearbox	ZF 6S800 TO - robotized
ESS Li-ion	Valence 170 kWh
ESS weight	2000 kg
ESS CT	7 h
Range	120 km



MEDIUM DUTY ELECTRIC TRUCK NVH ASSESSMENT



■ CEE Regulation R51.02

Test conditions	Midlum dXi5 E5	MD EV
Max SPL in dB(A)	77,5	74,4
	-3,1 dB(A)	

■ PIEK procedure - Truck target: 72 dB(A)

Test conditions	E Truck - dB(A)	PIEK target	Due to
Acceleration	74	NOK	gearbox noise
20 kph	66	OK	
Braking	66	OK	
Air release	67	OK	
Reverse	55	OK	
Reverse warning	72	OK	
Door slam	74	NOK	Cab design

MEDIUM DUTY ELECTRIC TRUCK CUSTOMER FEEDBACK



FLEET MANAGER	DRIVER
Globally satisfied of the truck application	Like driving this new truck
<ul style="list-style-type: none"> ✓ No fuel consumption , TCO impact ✓ Positive Image impact ✓ Low noise ✓ Operation constraints similar to a standard truck 	<ul style="list-style-type: none"> ✓ Pleasant driving “I’m driving a truck in the same way, being ecological friendly” ✓ Silent truck ✓ “Rounds are not longer with the E-truck” ✓ “It is an ideal truck for city use”
<ul style="list-style-type: none"> ○ Need a trained driver ○ Some issues with the robotized gearbox strategy ○ Autonomy for specific usage 	<ul style="list-style-type: none"> ○ Engine power in uphill situation / Motorway insertion ○ Lack of exterior noise : danger for pedestrian, need to use tram bell to warn them ○ Gearbox feature need to be improve in specific situation.