2016 CHEVROLET VOLT
BATTERY SYSTEM

KEY WINS

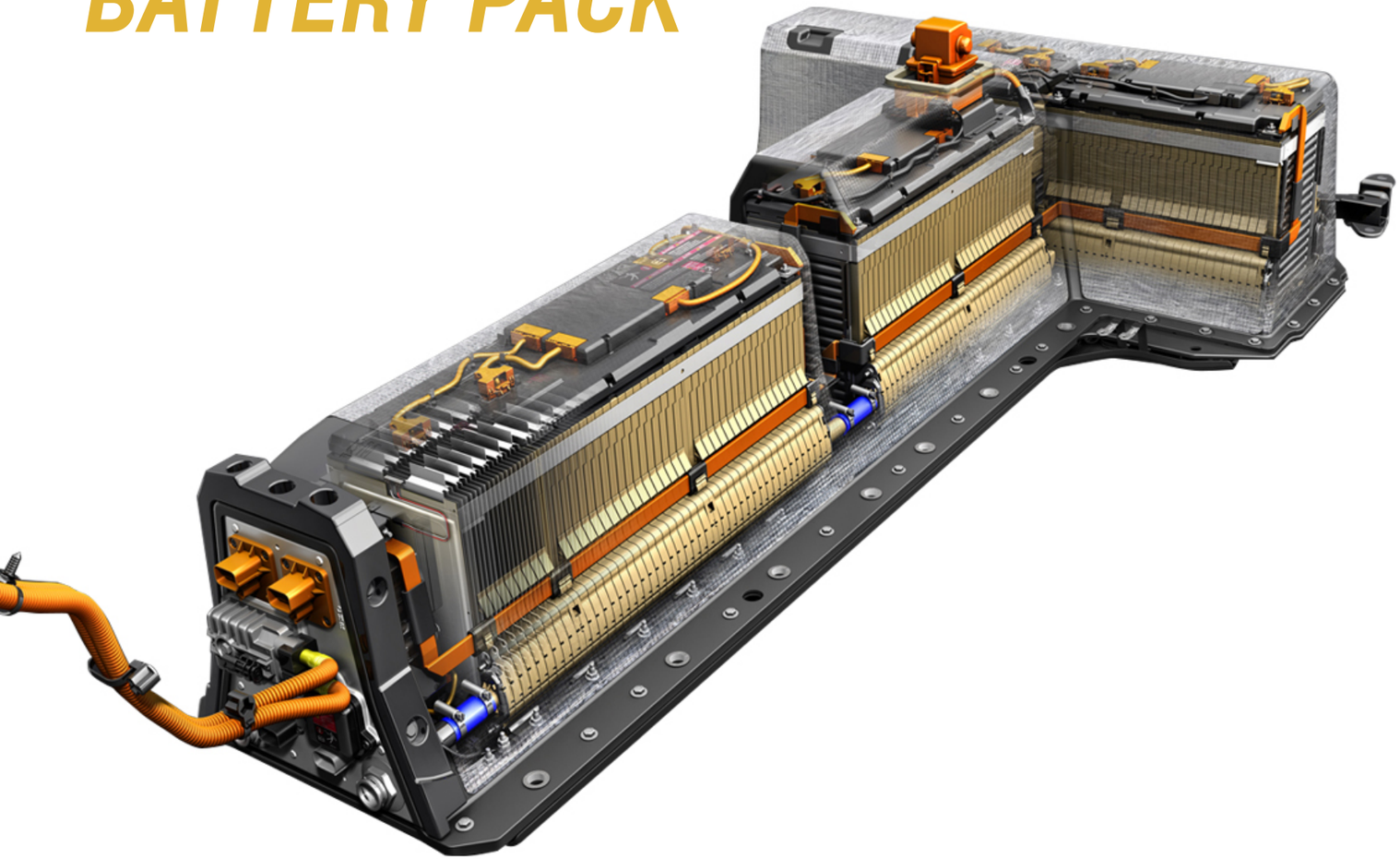
GEN 1

- Revolutionary liquid cooled battery pack
  - Foundation for battery life performance
- World class Quality, Reliability, Durability and Capacity Retention
  - GM study of more than 300 Volts in service in CA since launch in 2011: Approximately 15 percent of owners achieve more than 40 miles of EV range
- All climate operation

GEN 2

- Mass reduction of 13 kg (196 kg)
- Useable capacity increase of 25% (11.2kWh to 14kWh)
- Power increase of 9%
- Modular system architecture

GEN 1 VOLT
BATTERY PACK



Cell Chemistry	NMC-LMO Pouch
Cell Configuration	96S 3P (288 cells)
Discharge Power (10 s)	110 kW
Charge Power (10 sec)	60 kW
Usable Energy	10.2 – 11.2 kWh
Total Energy	16.0 – 17.1 kWh
Energy Density-Volume	118 Wh/l
Energy Density-Mass	87 Wh/kg
Nominal Voltage	360 V
Mass	196 kg
Pack Volume	145 L
Cooling System	Direct liquid fin
# of Modules	9
Module Sizes	18 & 36 Cells

GEN 2 VOLT
BATTERY PACK

Cell Chemistry	NMC-LMO Pouch
Cell Configuration	96S 2P (192 cells)
Discharge Power (10s)	120 kW (+9%)
Charge Power (10s)	60 kW
Usable Energy	14.0 kWh (+25%)
Total Energy	18.4 kWh (+8%)
Energy Density-Volume	119 Wh/l (+1%)
Energy Density-Mass	101 Wh/kg (+16%)
Nominal Voltage	360 V
Peak Voltage	395 V
Peak Current	430 A
Mass	183 kg
Pack Volume	154 L
Cooling System	Direct liquid fin
# of Modules	7
Module Sizes	24 & 32 Cells

COMPARISONS

	GEN1 VOLT BATTERY PACK	GEN2 VOLT BATTERY PACK
Cell Chemistry	NMC-LMO Pouch	NMC-LMO Pouch
Cell Configuration	96S 3P (288 cells)	96S 2P (192 cells)
Discharge Power (10s)	110 kW	120 kW (+9%)
Charge Power (10s)	60 kW	60 kW
Usable Energy	10.2 – 11.2 kWh	14.0 kWh (+25%)
Total Energy	16.0 – 17.1 kWh	18.4 kWh (+8%)
Energy Density-Volume	118 Wh/l	119 Wh/l (+1%)
Energy Density-Mass	87 Wh/kg	101 Wh/kg (+16%)
Nominal Voltage	360 V	360 V
Peak Voltage	-	395 V
Peak Current	-	430 A
Mass	196 kg	183 kg
Pack Volume	145 L	154 L
Cooling System	Direct liquid fin	Direct liquid fin
# of Modules	9	7
Module Sizes	18 & 36 Cells	24 & 32 Cells

WHAT DOES THIS MEAN TO CUSTOMERS?

- *53 miles of EV range*
- *Lower mass pack*
- *Fewer cells*
- *More overall energy storage*
- *More power*
- *More efficient*
- *World class quality*