

ELECTRICAL SYSTEMS: 42-Volt is on the Way

That's what engineers from Delphi Automotive are forecasting this week as they present new 42-volt technology at the Power Electronics in Transportation conference being held at the Novi Hilton this week. Delphi has been a leader in converting hydraulic systems to E/E systems and it is betting heavily on the development of 42-volt systems that it says will "certainly be implemented before the end of the decade."

No one is really quite sure what that means for many of the systems that are now powered by belts and hydraulics in existing electrical systems. Nevertheless, Delphi technology integration manager, Norman Traub says, "Vehicle manufacturers are facing the challenge to provide more electrical power to vehicles, make the vehicles increasingly fuel efficient and safer, and offer additional customer features. Vehicle manufacturers and suppliers are in agreement that the need for higher voltage systems is eminent and will certainly be implemented in this decade."

While Traub is correct in stating that all vehicle manufacturers and suppliers are in agreement about the increased energy needs for tomorrow's vehicles, they don't all agree that a 42-volt system is the way to go.

Delphi proposes to replace systems such as power steering, HVAC and engine cooling with electrical systems that would eliminate the belt driven systems that rob horsepower from the engine.

Traub says that by removing these belt driven systems, fuel efficiency could be improved by 5-10%.

Delphi is making several presentations regarding some of its solutions to the vehicle power dilemma at the Workshop on Power Electronics in Transportation being held this week.