

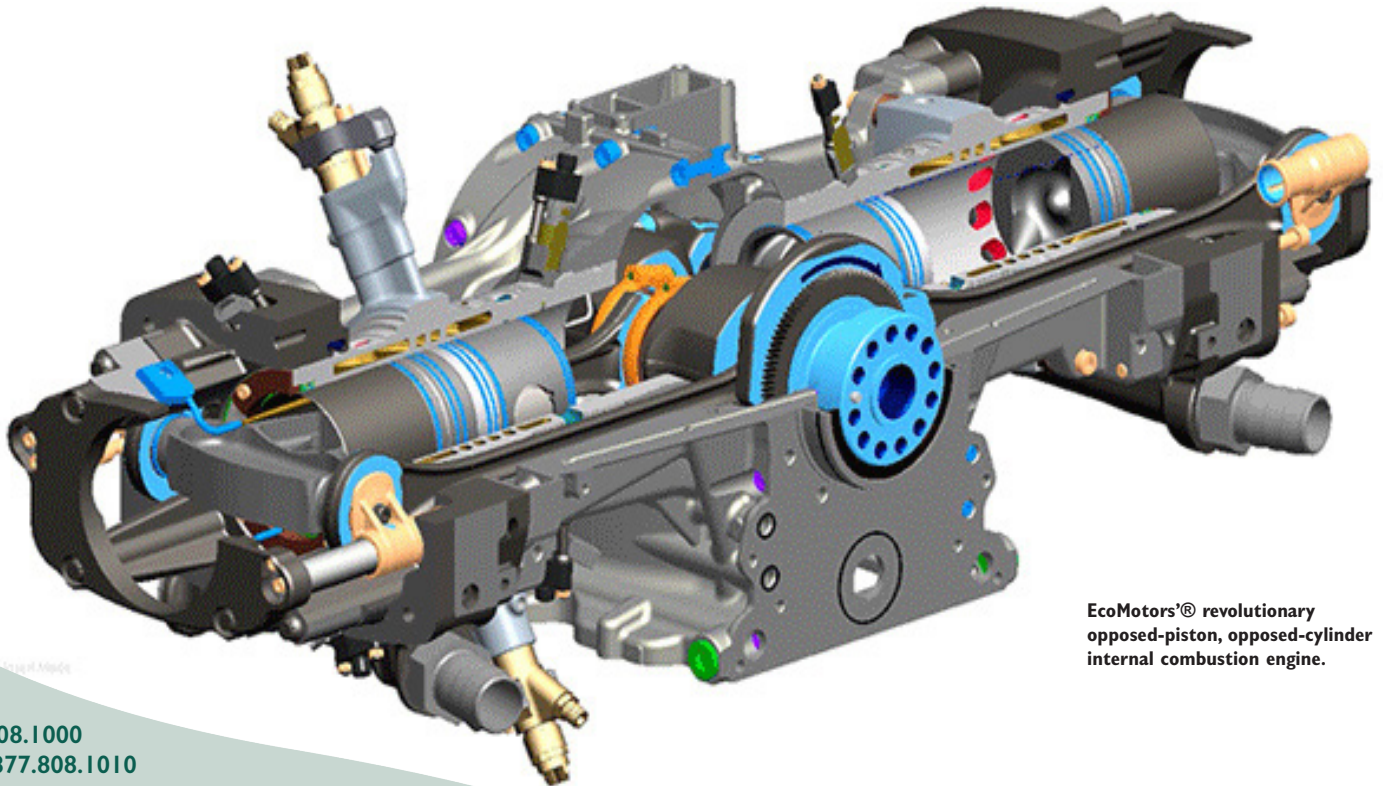
CASE STUDY

Nor-Tech's HPC solution keeps EcoMotors' engineers firing on all cylinders

Having outgrown the performance available in a single workstation, EcoMotors® engineering upgraded their internal computing capacity to meet the modeling challenges presented by EcoMotors'® revolutionary opposed-piston, opposed-cylinder internal combustion engine. To meet these demands EcoMotors® chose a turnkey HPC-Appliance from Nor-Tech with ANSYS® using Altair PBS Professional® scheduling software. The high-performance computing cluster was provisioned with ROCKS® open source clustering suite and Red Hat® Enterprise Linux® operating system running on the nodes. The HPC-Appliance was fully integrated with ANSYS® software for rapid deployment into the EcoMotors'® network. The cluster HPC-Appliance contained a head/storage node, multiple compute nodes some with GPU acceleration, Ethernet and Infiniband networking fabrics. Nor-Tech minimized the internal challenges of deployment

and reduced the time from un-boxing to productivity at EcoMotors'® site by having the cluster fully integrate with their network structure. With Nor-Tech's continued support, the EcoMotors® engineers are able focus their attention on their revolutionary new design for the combustion engine not HPC cluster administration and maintenance. The new HPC-Appliance allows EcoMotors® CAE engineers the ability to run more complex simulations as well as improved efficiencies on their standard jobs.

Turning the cluster from a computer system and software into an appliance, Nor-Tech eliminated the challenges of deploying an ANSYS® HPC solution within EcoMotors® and make it a just another tool in the engineers' toolbox for them to get their job done. Management appreciated the appliance approach to HPC also, because they realized the ROI faster on the cluster.



EcoMotors® revolutionary opposed-piston, opposed-cylinder internal combustion engine.