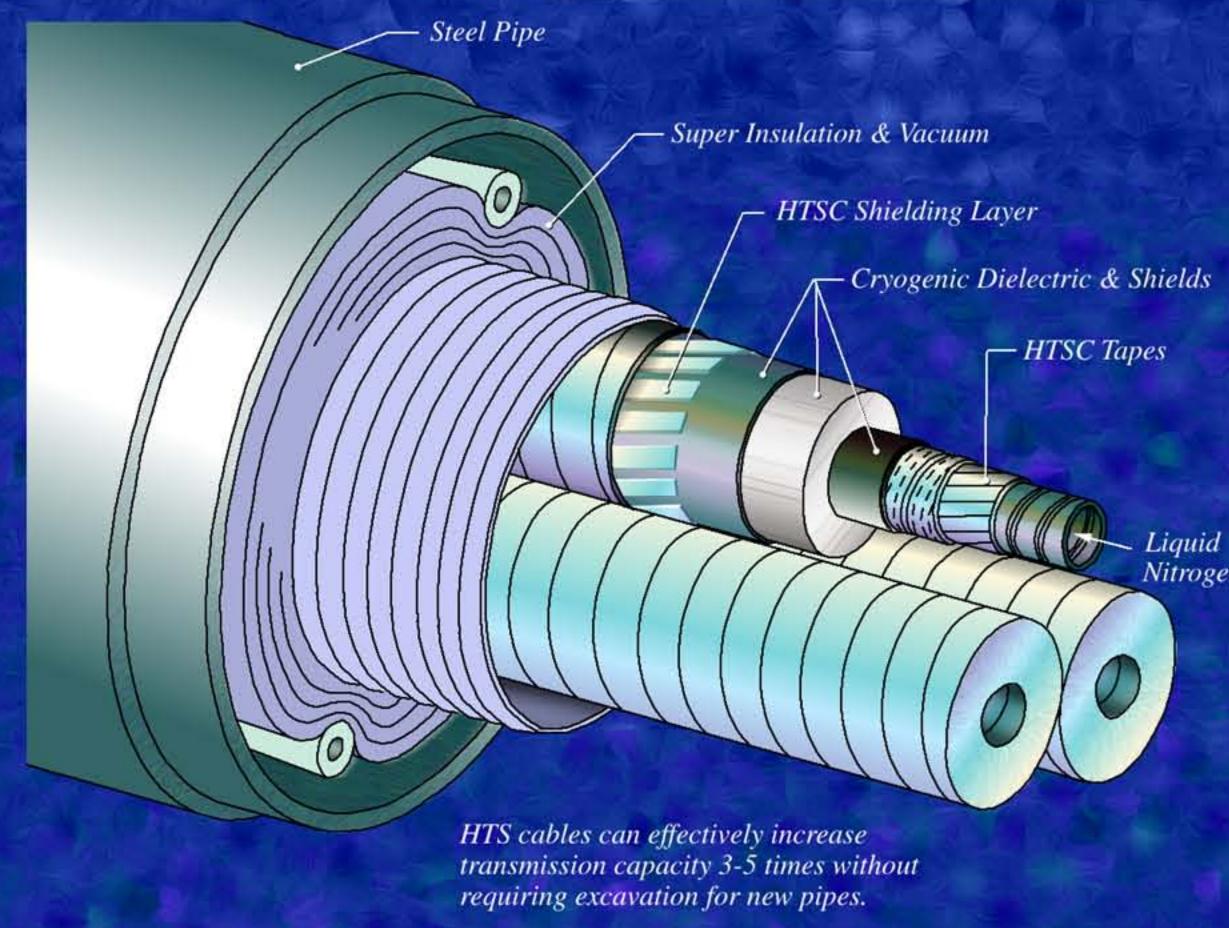
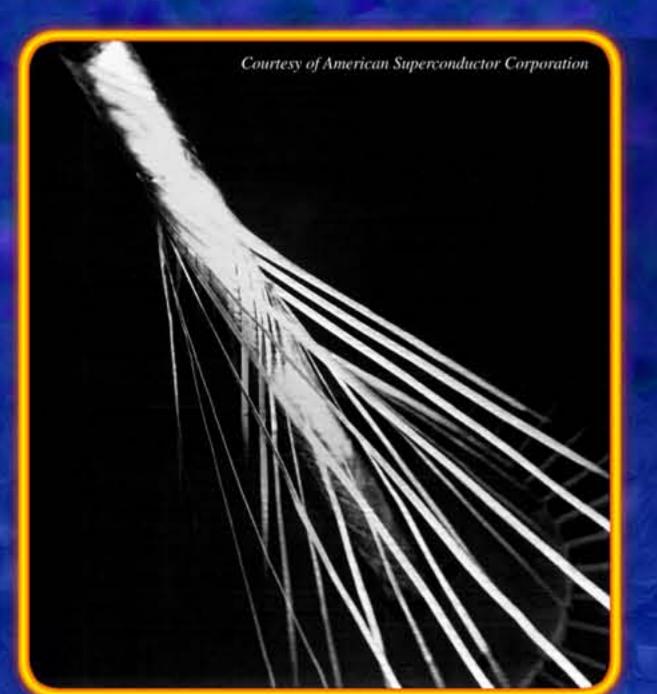
High Temperature Superconducting Underground Power Transmission Cables

High Temperature Superconducting Underground Power Transmission Cables will carry electricity from the utility stations to transformer substations. Since the cables are composed of superconducting wire there is no resistance

and very little loss of electricity. This transmission cable can carry 3-5 times the current of conventional power cables. This capacity will be of great value in places where new rights-of-way are restricted.





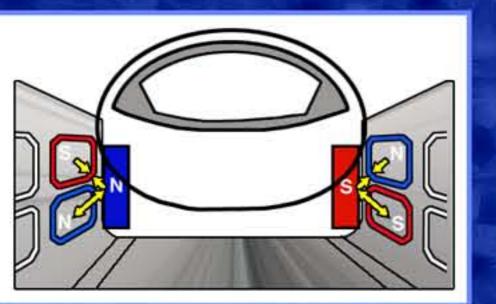


High Temperature Superconductors

(HTS) are perfect carriers of electricity. When stranded together, these cables of multi filamentary wires are strong, flexible, durable and capable of carrying 3-5 times more electrical current than when made of copper.

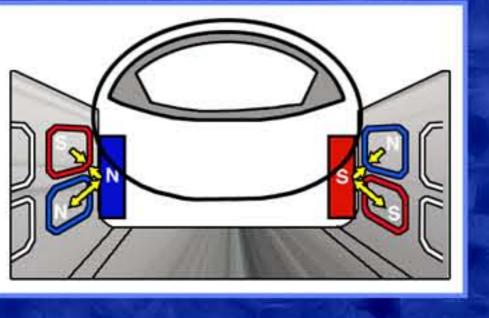
Superconductivity

CREATING THE FUTURE



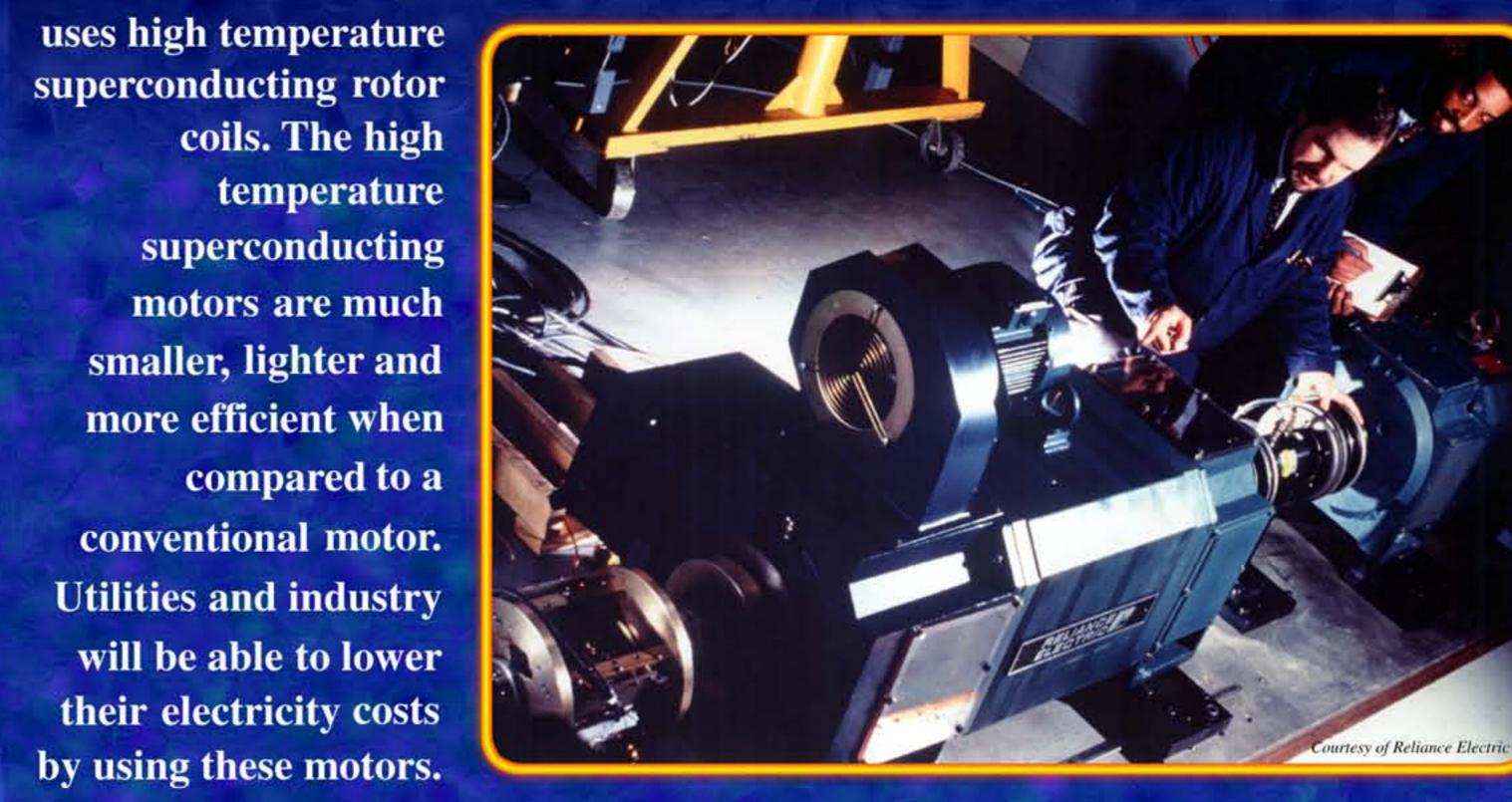
Superconducting Magnetic Levitating Train

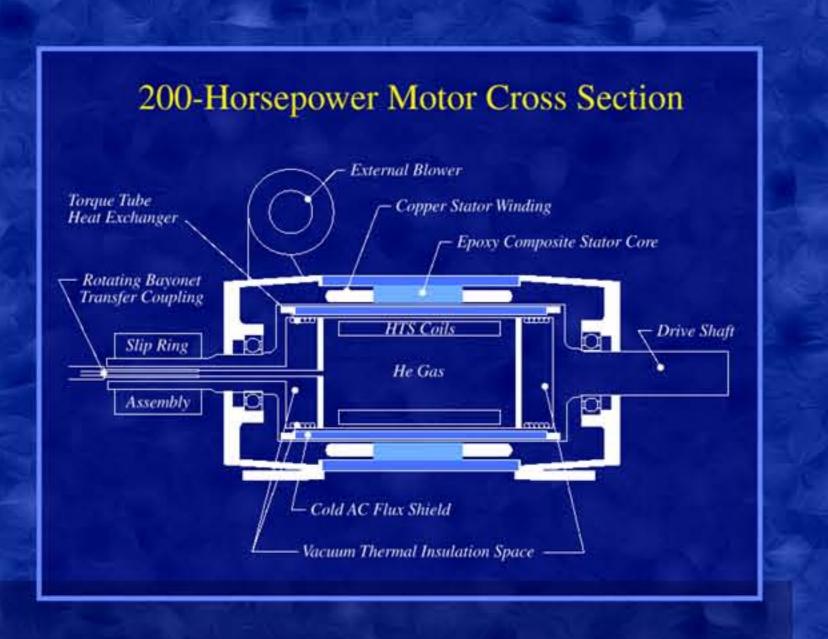
(MAGLEV) can reach speeds of over 300 mph. This method of transportation could be used to connect cities which are from 200 to 350 miles apart, relieving congested highways and airports. The superconducting magnetic coils on-board the train and on the sidewalls of the guideway provide levitation, keep the vehicle in the center of the guideway and propel the MAGLEV along the track.



The 200 Horsepower Motor

coils. The high temperature superconducting motors are much smaller, lighter and more efficient when compared to a conventional motor. **Utilities and industry** will be able to lower their electricity costs by using these motors.





Magnetic Resonance Imaging

(MRI) is used in many hospitals to obtain pictures of human soft tissue and organs. The patient lies on a bed that slides into the MRI. The superconductive magnetic coils are an important portion of this whole-body scanner. Since these coils are capable of producing very stable, large magnetic field strengths, they generate high quality images.



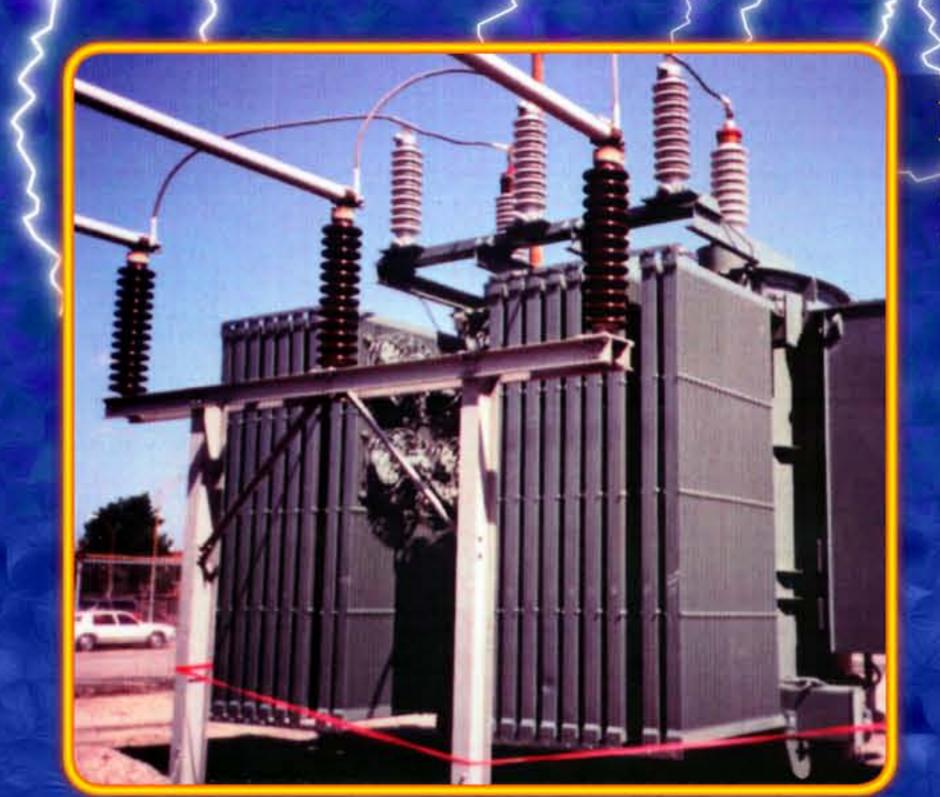
Courtesy of GE Medical Systems

Generator Racetrack Coils

are made from the high temperature superconductor bismuth-strontium-calcium-copper oxide (BSCCO). The coils will be used in high efficiency, low cost generators for electric utilities.







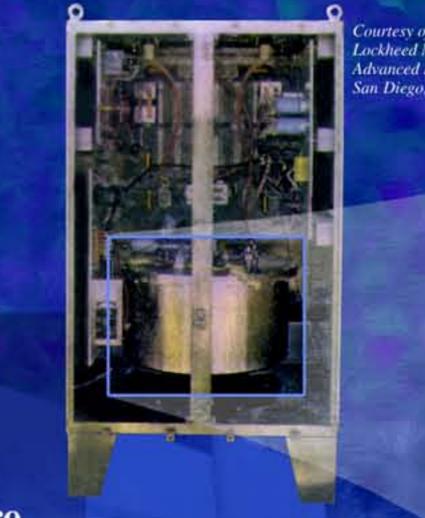
High Temperature Superconducting Transformers

offer utilities and industry a highly efficient, light-weight, compact and environmentally friendly alternative to today's oil-filled transformers.

002N

A Fault Current Limiter

(FCL) can protect power transmission, cable and operating equipment from surges of excess electricity caused by lightning strikes, short circuits and power fluctuations. The high temperature superconducting coils in the fault current limiter control the high current burst just long enough for the circuit breaker to open.



Large Current HTS Limiter Coil

