

Dr. Stephen J. Browne

Dr. Browne is an experienced CEO, business executive, entrepreneur, and economist, with a long career building successful businesses in innovative, high technology disciplines. Throughout his career he has managed businessmen, researchers, academicians, and technologists, implemented complex financings, worked with regulators of energy and the environment, and developed winning strategies for market-oriented companies. He has built international businesses in the fields of information technology, where he built a series of information technology companies with an emphasis on combining the disciplines of economics and engineering; power generation; energy technology; and energy equipment manufacturing.

Dr. Browne is Chairman, CEO, and President of The Stanton Group, which he founded in 1986 to develop independent (privately owned) power plants and to promote new energy technologies. After developing renewable, waste to energy, and conventional facilities in the USA, culminating in a \$250 million combined cycle gas power plant that subsequently was purchased by a major electric utility, in the early 1990's Stanton moved its focus to developing energy projects in the Former Soviet Union and Eastern Europe, and then in the 21st Century began working intensively in China and with bringing advanced Chinese technologies to global markets. Stanton also introduced American technology for spent fuel storage into Ukraine, developed cross-border power transmission projects in North America and Europe, and was the private sector leader in the path breaking nuclear non-proliferation agreement on the Korean peninsula.

One of Stanton's major programs is the development of modern power plants using waste gases from steel mills in Eastern Europe and the Former Soviet Union as well as modernization of conventional power plants in the region, along with developing steel mill gas plants in China. These facilities provide considerable savings in the use of fossil fuels, significant environmental improvements, and substantial capture and displacement of carbon dioxide emissions. Now Stanton is expanding its program to finance and construct similar facilities based upon the large streams of carbon credits created by these new power plants.

Another important program, called Stanton ReCoGen (which is shorthand for Recogeneration, or the generation of power from recovered energy), is the development and implementation of a growing portfolio of facilities that generate electricity from the recovery of waste heat. The sources of waste heat include metallurgical plants, cement plants, process industries, gas pipelines, diesel engine power plants, and coal mines, in Eastern Europe, the Former Soviet Union, China, the USA, and the Americas. Stanton ReCoGen typically develops, designs, builds, and owns these recovered energy facilities and sells the power to industrial customers and the power grids. Using waste heat instead of fossil fuel is an increasingly attractive alternative that produces significant power savings and reductions in carbon dioxide and other pollutants. Many of these projects use Stanton's proprietary and patented Advanced Technology Organic Rankine Cycle (ORCA) technology, which has superior performance compared to other ORC systems.

Stanton's energy technology manufacturing program has brought a variety of products from leading American energy technology firms to a portfolio of major manufacturing facilities in Eastern Europe. This outsourcing and licensing program takes advantage of the region's comparative advantages in materials and labor costs and strategic location to serve European, Middle Eastern, and American markets for construction of new and refurbished power plants. Stanton also has partnered with leading Chinese suppliers of advanced energy technology to establish their business in export markets outside China. This activity includes both power project development and establishing local manufacturing facilities to make most of the components and to promote economic development.

Stanton is a member of The Johns Hopkins University Geothermal Manhattan Project, which was formed to develop and implement a proprietary and patented system for extracting geothermal heat from the earth's crust, for use in utility scale power plants. The below-ground technology, called the Radiator Enhanced Geothermal System (RAD EGS), developed by JHU's Earth and Planetary Sciences Department, solves the critical problems that have held back the widespread use of geothermal power. Stanton's responsibilities include the design of the above-ground facilities that convert geothermal heat to electricity, often using Stanton's ORCA technology; the

system integration of those facilities with the below-ground heat extraction technologies; and the commercialization of the technology.

Dr. Browne started his professional career at Data Resources, Inc. (DRI), the premier economic forecasting, modeling, data, software, and consulting firm. At DRI he built and managed the company's wide range of products and services for the energy and industrial clientele, both domestic and international, including the first services designed to enable electric utilities to use economics in their forecasting and regulatory activities; this service began at the time of the first Energy Crisis and grew to include over 90% of all American utilities as customers. DRI had a successful public offering and subsequently was sold to McGraw Hill.

Dr. Browne was CEO and co-founder of Dun & Bradstreet Technical Economic Services, a company that built a proprietary database of the top 100,000 manufacturing facilities in the USA, with information for each plant about energy use and costs, production volumes, location, production methodology, employment, and so forth. This database and its associated models were used by most American electric and gas utilities, gas pipelines, energy equipment suppliers, and power plant developers to evaluate current and future markets, to identify market leads, and to establish gas trading businesses in the era of new deregulation and cogeneration in the 1980's. Dr. Browne sold the company to D&B in order to launch The Stanton Group.

Dr. Browne has a Ph.D. in Economics from MIT and an AB in Economics from The Johns Hopkins University. Among his academic honors, he was one of the first Presidential Scholars.

Dr. Browne is a Corporate Trustee and a member of numerous committees of The Trustees of Reservations, the world's oldest land conservation organization, founded in Boston in 1891. He is an Emeritus member of the Board of Overseers of the Cummings School of Veterinary Medicine at Tufts University, one of America's leading veterinary research, teaching, and clinical institutions. He served more than twenty years on the Planning Board in Medfield, Massachusetts, and served as Master of Foxhounds of the Norfolk Hunt Club, one of the oldest hunt clubs in North America. He is an equestrian, a pilot, and a jazz musician.