The technical components of an eco-district.

Characterized as equitable, resilient, and environmentally responsible, **eco-districts** embrace social, technological, and financial systems integration for community benefit. District energy systems are often the cornerstone strategy for communities to achieve resilience and drastic carbon emissions reductions. These systems leverage a portfolio of such technologies and strategies as geothermal and recovering wasted energy from conventional sources to provide exceptional energy efficiency and a pathway to carbon neutrality.

With district energy systems at their heart, eco-districts accelerate the promise of a low-carbon future for existing and new buildings.

MEP Geothermal was founded by **Jeff Urlaub** in 2001 to help regional hospitals of the Mayo Clinic system better manage seasonal spikes in utility fees. Urlaub's success since then has produced a portfolio of industry benchmarks spanning North America, including such landmark projects in metro New York as Cornell Tech's Bloomberg Center on Roosevelt Island.

With a background in energy planning, and the design and construction of geothermal systems and central energy plants, **Mike Walters** joined MEP Geothermal in 2016. In the last decade, Walters guided Cornell University's standard-setting climate action plan, the transformation of Ford Motor Company's Dearborn Research and Development Center, and energy planning for RiverLInC eco-district in Long Island City.

MEP GEOTHERMAL ENGINEERING

The East River as renewable energy.

Emma and Georgina Bloomberg Center

Cornell Tech | New York, NY

Designed as one of the largest net-zero energy buildings in the country, the 150,000 SF Bloomberg Center is supported by MEP Geo's system of 80 closed-loop. 400'-deep geothermal boreholes. Thermal capacity is increased by an annulus pumping system that draws water through fissures leading to the East River for a peak cooling load of 265 tons.

District Energy for a surrounding region.

RiverLInC

Queens | New York, NY

MEP Geo's district energy system for this 12 million SF mixed-use development will use geothermal technology, river-source cooling, wastewater heat recovery, thermal storage, and simultaneous heating/cooling exchange to provide thermal utilities. The system is sized to provide a sustainable infrastructure to the surrounding neighborhood, including Queensbridge housing.

The largest geothermal system in the country.

Epic Systems Corporation

Verona | WI

Epic's 10,000+ employees work in 8 million square feet on a 1,100-acre property divided into five campuses. MEP Geo has provided the health records software giant with renewable energy system master planning, design and implementation including, to date, four borefields (6,200 bores), a 5.8 acre thermal pond, an 18,000 GPM open loop system, and a central pump house transferring energy among buildings, sources, and distribution energy plants. MEP Geo provides ongoing direction and support to Epic operations.

Converting Ford Motors to District Energy.

Ford Motor Company

Dearbourn | MI

MEP Geo is upgrading Ford's 6 million SF research, engineering, and design campus to a modern district energy system. We developed the low entropy master plan and led design of the new central energy plant and distribution systems, including a 34MW combined heat and power system, a chiller plant with heat pumps and high efficiency cooling only chillers, and 40,000 ton-hours of thermal energy storage. The plant is a Design-Build-Own-Operating-Maintain facility, with MEP Geo supporting DTE Energy Services.

MEP GEOTHERMAL ENGINEERING

37A 9th Street | Brooklyn, NY 11215

Contact Info:

Jeff Urlaub, PE
Principal
715.828.8592
jurlaub@mepgeoeng.com

Mike Walters, PE, LEED AP
Principal
608.225.8608
mwalters@mepgeoeng.com