

We are redefining cleantech
innovation and energy
efficiency

**IN AN
UNPRECEDENTED
WAY**



SYSTEMEX ENERGIES – INTRODUCTION



Systemex Energies is a Canadian holding company established in 2009, created for the purpose of investing in and developing clean technologies by building a portfolio of companies and intellectual properties.

Our innovation center is located in a 10,000 sq.ft. building on a 4-acre property in the industrial park in Magog, Quebec.

Our new generation of clean technologies is the answer to electrical network stability, reliability and reserve challenges and to issues related to the capping of high-performance processor cooling systems.

These new technologies were born out of extensive research and development carried out in collaboration with major global players in the energy industry.

SYSTEMEX ENERGIES – PARTNERS



SYSTEMEX ENERGIES – SOLUTIONS

> **SOFTload™**

Technology for load modulation and reliability services with smart decentralized loads



> **Smart Soft Vehicle SSV™**

Vehicle to Grid (V2G) or Vehicle to Home (V2H) technology

> **HPC³™**

High-performance cooling technology for data centers



> **UTS™**

Uninterruptible thermal supply technology

SOFTLOAD™ SOLUTION – SERVICES

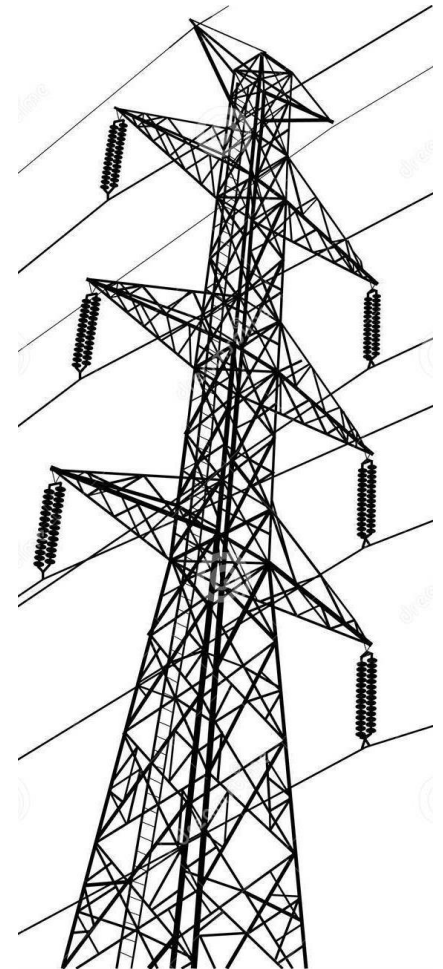
One solution... multiple services!

AUTOMATIC OPERATION

1. Synthetic inertia (0+ to 1s)
2. Fast frequency response (1 to 3s)
3. Fast synchronous reserve (3 to 10s)
4. Synchronous reserve (10s to 10m)
5. Autonomous frequency regulation (30s to 1m)

CONTROLLED OPERATION

6. Conventional frequency regulation (AGC, 30s to 5m)
7. On-demand reserve (10 and 30 minutes)
8. Peak shaving (hours)
9. Ramping (hours)



SOFTLOAD™ REACTS IN LESS THAN 250 MILLISECONDS



**Continuous
modulation**



**At the
source**



**Ultra-
fast**



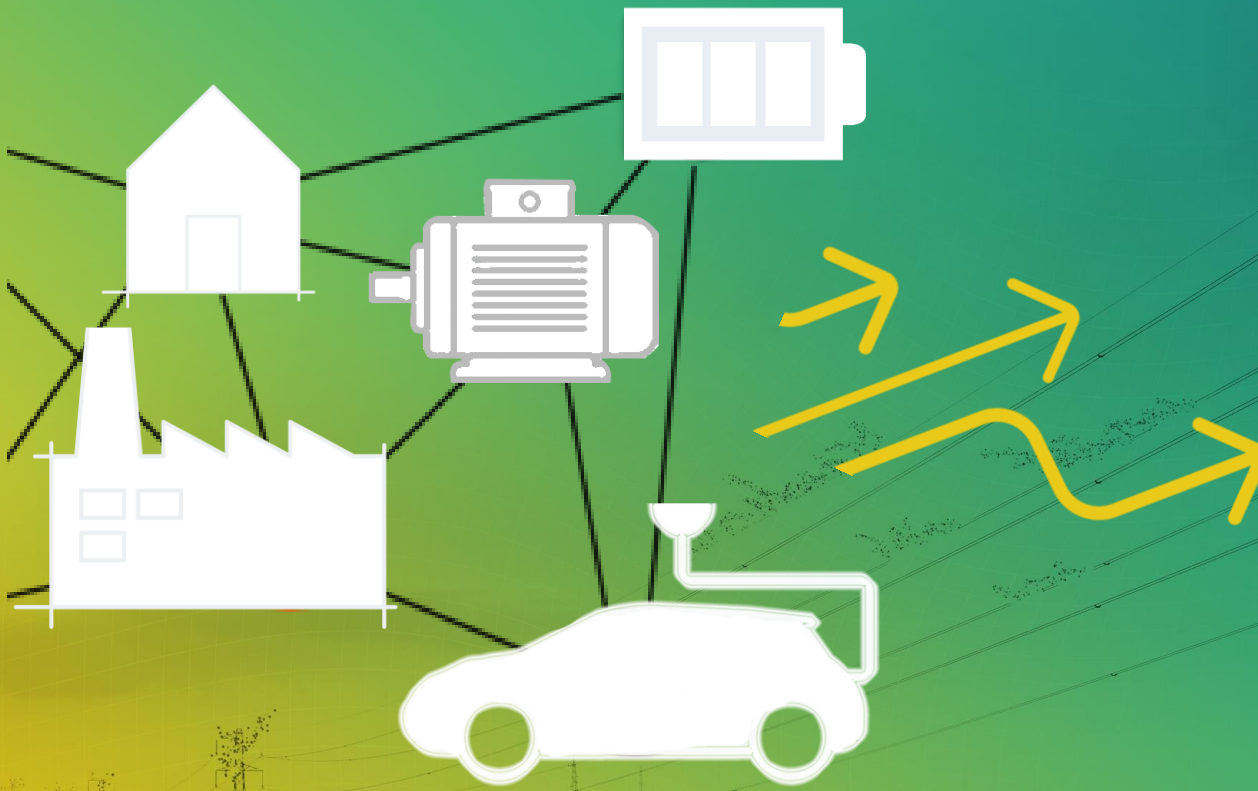
**Without
telecommunication**



**Lowest
cost**

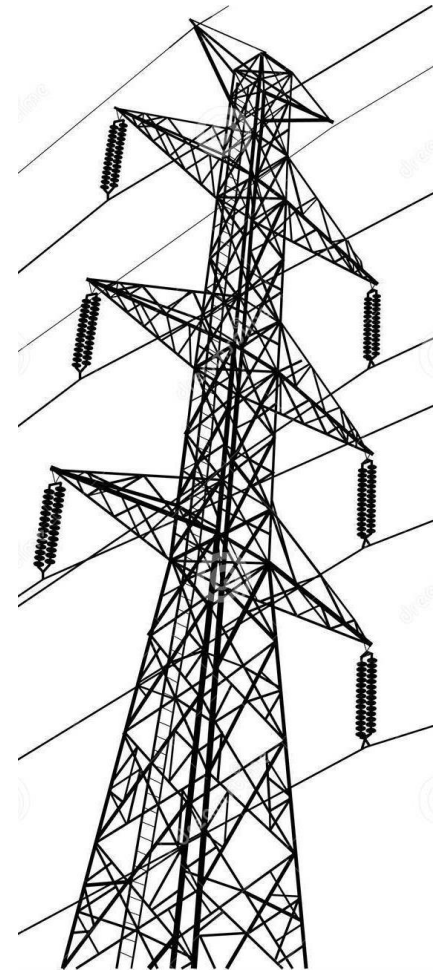
THE SOFTLOAD™ SOLUTION PRODUCES "NEGAWATTS"

The aggregation of a set of smart loads installed in various residential, commercial and industrial loads creates a **virtual power plant** (VPP) that provides reliability services to grids with smart decentralized loads.



SOFTLOAD™ SOLUTION – ADVANTAGES

- Reduces the need for ancillary services
- Access to a critical mass of aggregated loads
- Geographical diversification of loads
- Flexibility thanks to the recognition signal
- Decreased transportation costs
- Predictable and reliable
- Secure (internet of things)

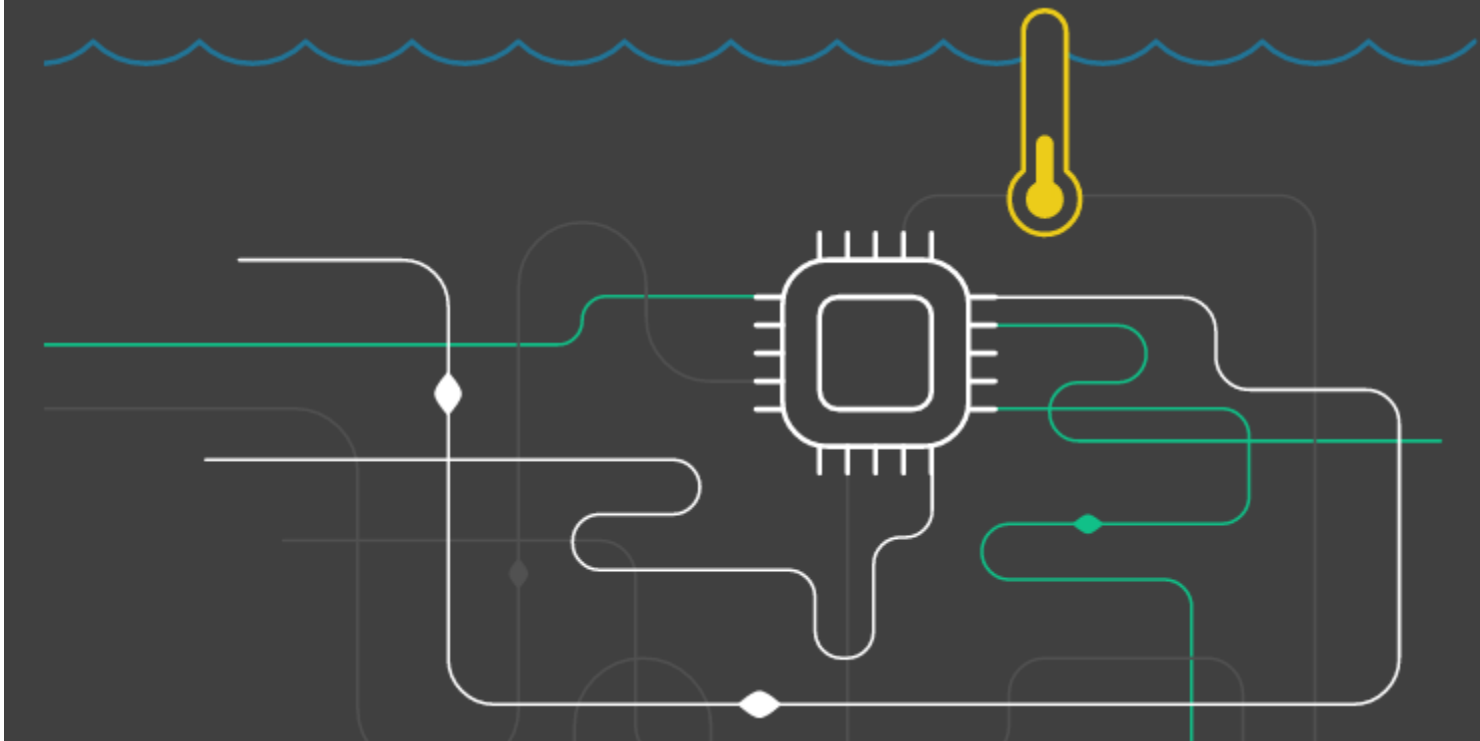


HPC³™ SOLUTION

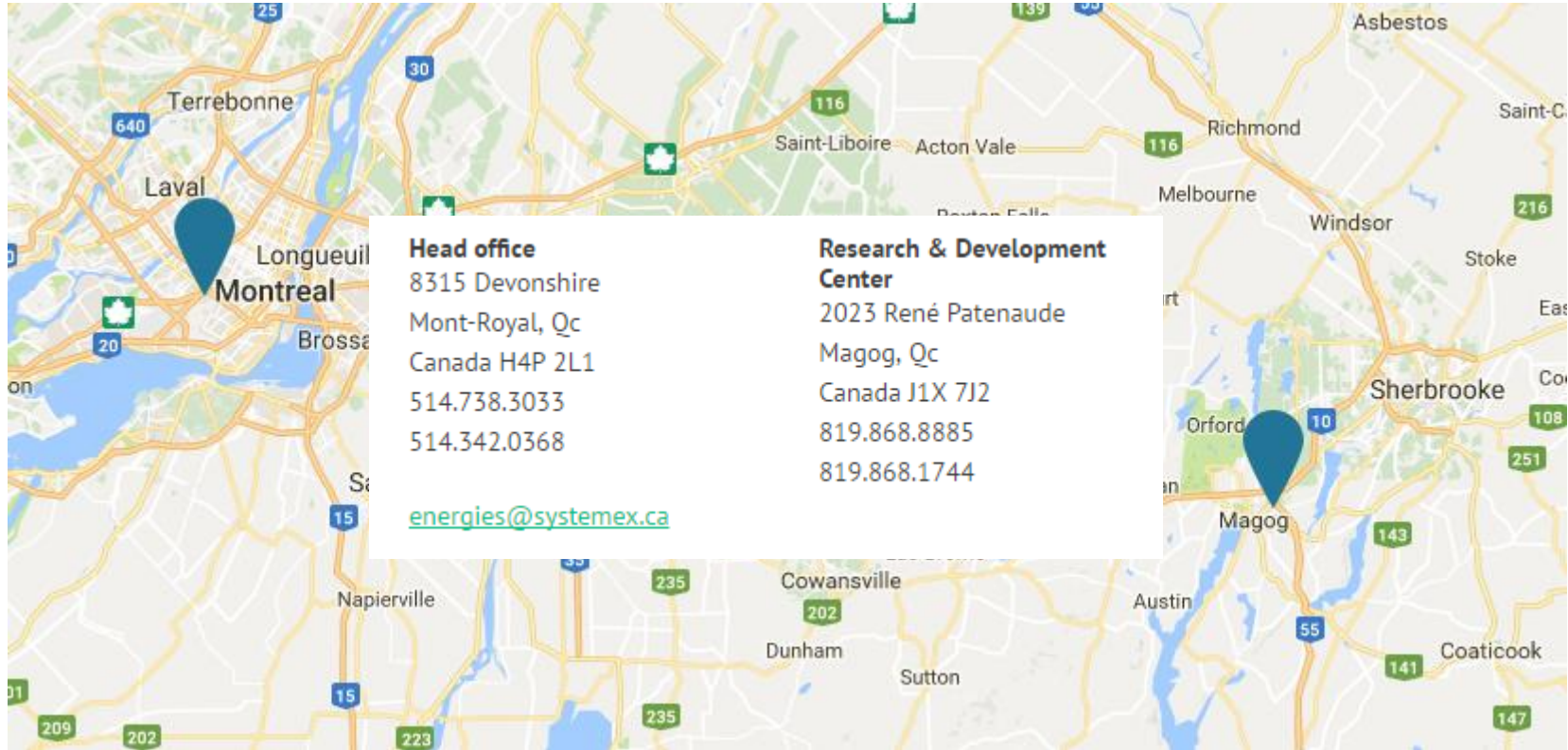
OUR TECHNOLOGY IS EFFECTIVE IN COOLING PROCESSORS AND MAXIMIZING THEIR PERFORMANCE

Our technology maximizes the capacity of high-performance processors using an innovative direct immersion cooling technology, and by regulating clock gating and the processing of big data, all resulting in significantly lower energy costs.

Our technology will prove to be a revolution for data centers.



CONTACT US



systemexenergies.ca