

# Smart buildings and smart cities the trend to Kontrol Energy

As the world's population increases so will the demand for energy and cost effective efficient energy production. In the US alone ~30% of energy is lost to inefficiencies. One of the key trends this decade is the move towards "smart buildings and smart cities" so as to use energy more efficiently. Another is to reduce CO2 emissions.

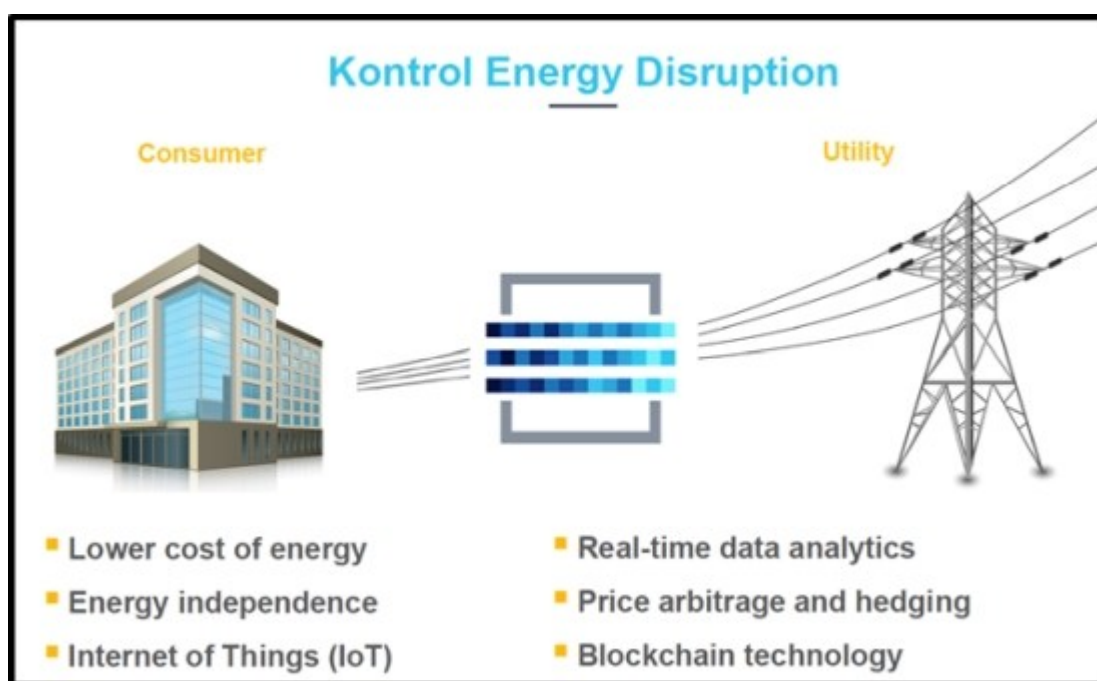
Kontrol Energy Corp. (CSE: KNR) is an energy efficiency technology company operating in the Internet of Things (IoTs), Cloud, and Blockchain space; with an aim to solve North Americas largest energy challenges. Kontrol Energy was formed in 2015 by a group of energy veterans who recognized that the energy efficiency industry would be a significant engine for the global economy over the coming decade.



**A \$60b market opportunity just in the US**

The industry Kontrol serves is the \$200 billion annual US energy industry. 30% of that energy which is wasted due to inefficiencies amounts to a \$60 billion annual industry opportunity for Kontrol, just in the USA.

Kontrol's passion is to help you get control (hence the name) over your energy costs and achieve your sustainability goals. Kontrol is working with manufacturers, commercial and multi residential buildings, utilities, education and the cannabis industry. Kontrol also helps its clients reduce greenhouse emissions.



On November 21, 2018 Kontrol provided an update relating to progress of operations and strategic activities over the past four months. Kontrol has completed the acquisition of CEM Specialties Inc. ("CEMSI"), thus adding \$6 Million of annual revenues and approximately \$1 Million in annualized EBITDA. Kontrol has received two significant customer orders totaling over CAD\$2.3 million, and have secured two contracts with licensed producers in the cannabis sector to provide energy efficiency services.

CEM Specialties Inc. (CEMSI) is an emission integrator focused on helping companies monitor and reduce emissions throughout

the USA, Canada and abroad; serving more than 1,000 sites currently in operation across 3 continents.

Paul Ghezzi, CEO of Kontrol Energy stated: "We are very pleased with closing the acquisition of CEMSI. In the short time since the acquisition of CEMSI, the Company has received two significant orders, which includes a CAD\$1.1 million order from a global cement company and a CAD\$1.2 million order from a global mining company."

Having gone public on the CSE in 2016 and adding a few acquisitions in a vertical integration strategy, Kontrol's revenue growth has been off the charts and is expected to continue to grow. These impressive results have seen Kontrol Energy ranked number 7 on Canada's Top new growth companies for 2018.

### **Kontrol Energy is growing revenue very strongly**

Kontrol entered 2016 with about \$400,000 in revenue and finished the year at around \$1.9 m. In 2017 the number reached about \$6.9m with the expected amount for year end 2018 to be about \$10.5 m. This is excellent growth, and it is expected that this will reach ~\$30 million by the end of 2019.

Paul Ghezzi CEO of Kontrol Energy stated: "We have been delivering on our stated goals and objectives and seek to continue our strong growth through further accretive acquisitions and the expansion of our smart energy technologies."

Kontrol Energy should continue to see significant growth in the years to come as the world continues to focus on greater energy efficiency and lower CO2 emissions. Very strong revenue growth and enormous market opportunities (energy efficiency/CO2 emission reductions) makes Kontrol Energy one to watch closely.

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# Nuclear energy plans in Japan and China to boost uranium prices in 2014

✘ Uranium prices should improve considerably in 2014; certainly, there are all the prerequisites for a U308 'renaissance'. New reactors are being planned for construction and old ones slated for improvements. The uranium market has welcomed this week's announcement from the Japanese government that nuclear will continue to be included as an essential component of the country's energy mix. Since the Fukushima disaster, the price of uranium has experienced a severe 'correction'.

The spot market price for U308 has fallen to the USD\$ 35/lb. range, losing more than half its value over the past three years. In the medium and long term, Japan's return to the market is certainly reassuring for the future of uranium demand, even if Japanese energy companies are unlikely to rush to purchase beyond that they have already contracted or stockpiled. This suggests that the real demand boost will occur later rather than earlier in the decade. Nevertheless, China's uranium appetite is increasing rapidly. Japan plans to restart 17 reactors and almost half of those may resume activity in 2014 alone, as inspections clear them for safe usage. Meanwhile, China and Japan will inject by themselves, considerable demand into the uranium market. The United States, it may surprise some, also needs uranium imports because domestic supply is about one tenth of its current consumption and because the 1993 US-Russian 'Megatons to Megawatts Program', allowing the US to purchase surplus Russian enriched uranium from military stockpiles ended last

year.

As of January 2014, Chinese uranium concentrate imports rose 22 % compared to the average monthly purchases in 2013. Importantly, in 2013, Chinese uranium imports reached a record of 18,968 tons of concentrate, exceeding the current needs of existing nuclear power plants, whose annual consumption is estimated at between 6,500 and 7,500 tonnes. Evidently, China is keen on accumulating uranium stocks and this should come as no surprise to observers of the energy sector. The Chinese government aims to install 50 GW of nuclear capacity by 2017; it now stands at 16.6 GW. Uranium production in China is still undermined by the poor quality of the available ore its slow development activity. Yet, the current price of uranium is too low and Chinese buyers have been exploiting the opportunity to buy and accumulate it at such low prices.

In 2013, Chinese – and others – U308 buyers, were able to pay less than USD\$ 50/lb for the first time since 2006. Since that time, it is estimated that China has accumulated close to 60,000 tons of uranium, which is about the same amount as is mined in a year (overall) and enough to fuel eight years of energy generation at today's rates. It is important, therefore, as also noted by such as analysts as Stefan Ljubisavjevic at the Macquarie Group, that spot uranium prices start rising in order to halt the uranium stockpiling at bargain basement prices before the Chinese government decides that they have enough stockpile. In other words, the analysts suggest that uranium producers slow production rates in order to raise prices. Nevertheless, there are more reassuring statistics for uranium investors, which suggest that slowing down production may be a little drastic.

More than three-quarters of the primary energy consumed on earth still comes from fossil fuels (coal, oil and gas). Due to a sharp drop in prices and rising worldwide energy demand, coal consumption has burst, reaching 6 billion tons per year; the International Energy Agency (IEA) has even predicted that

coal will be the world's most consumed fuel for energy in the world – even more so than petroleum. For those of you, in the northeastern and Midwestern USA and eastern Canada, still concerned about 'global warming' – hit by the coldest winter in years – coal is blamed for producing nearly half of global CO2 energy related emissions, while oil generates 30 % and gas 20%. How many CO2 emissions does nuclear energy produce? A negligible amount. So, rather than browbeat us with warning of cataclysmic events, flooding apocalypses and the end of skiing as we know it, governments should start to consider uranium as the true and effective energy source for the future.

Driven by global economic development, world energy consumption will only grow while renewable energy sources, which now account for just over 15% of world consumption, will be useful but will fulfill a complementary role because they are still a long way from being able to address the ever-increasing and unprecedented thirst for energy fueling economic growth in areas of the world with huge populations that have yet to even tap into the energy grid.

Energy generation will have to double at least over the next few decades 40 years. If you care about CO2 emissions, this increase will ensue only by using sources that do not produce it such as U308. For those who care about plain old soot and dirty air, smog, which lead to actual ailments, sickness and limit breathing, simply consider the current Chinese scenario. This past week, about 15% of China's territory, including the capital, Beijing was suffocating under record levels of pollution exacerbated by increased winter time use of coal. In Beijing, a thick layer of air pollution covered the city last week, prompting taunts and concerns on social networks and one citizen to actually sue the government. The U.S. Embassy in Beijing observed that, the density of soot particles to be 2.5 microns in diameter at a density of 400 micrograms per cubic meter in the capital, which is sixteen times higher than the limit of 25 micrograms recommended by the World Health

Organization (WHO) in a twenty-four hours exposure. And note: this is while China is experiencing a supposed slow economic growth period 6-7%, not the 11-12% of past seasons. Not surprisingly, the International Energy Agency suggests that up to 350 new nuclear reactors should be built worldwide by 2030 to address energy demand.

Experiments combining nuclear reactors with particle accelerators, as performed in Belgium, may lead to a process to incinerate radioactive waste in the long term, making nuclear energy even more 'palatable'. The scientists say that such a process will be operational in a decade, achieving a rapid neutron transmutation of elements contained in radioactive nuclear waste, reducing by a factor of 1000 for the period that these elements remain highly radioactive. This should remove one of the major obstacles is the source of opposition to a growing proportion of the public in the operation of this form of energy.

Last Wednesday, when the Japanese government formally announced its plans to continue using nuclear energy, shares of some of the main uranium producers did, in fact witnessed a welcome increase, including Denison Mines (TSX: DML) +10.8%, Cameco Corp (TSX: CC0) +4% and Energy Fuels (TSX: EFR) +4.6%. France's Areva (PA: AREVA), one of the largest uranium miners and reactor producers, suffered a bit but recovered on Friday, gaining 1.19%. The reason for the lower gains is unrelated to the uranium market and more closely tied to its risks in Niger and Mali.