GOLD & ENERGY ADVISOR

$19 BONUS ISSUE Special Bonus Issue

"What's the absolute best time to buy an investment?

"Personally, I like to see several years of the price being in the dumps, so that everybody loses interest. Then I like to see the fundamentals turn massively bullish. Even better is when the government intervenes in the market to push the price up. When these things occur, and you get in before everybody else notices, you can make obscene profits!

"Of course, these opportunities are rare. But they do come along every so often. And right now, I've found a doozy. That's what this bonus issue is about!"

The US Nuclear Regulatory Commission just received something it hasn't seen in 31 years.

It received an application to build a new nuclear reactor. (Two reactors, in fact—both in South Texas.)

This is the first of an imminent flood of applications. In fact, regulators are expecting applications for up to 29 new reactors in the next 15 months.

Most people think the nuclear industry withered and died years ago. It sure seemed that way, but it's not true at all.

In fact, all over the world there's suddenly…

A Huge Revival of Nuclear Energy!

And this creates a great profit opportunity for us.

But more on that later. First, we have to understand what's happening, and why.

The United States currently has 104 commercial nuclear reactors. Adding 29 more reactors is a growth of almost one-third—a huge expansion of the nuclear industry.

The US government is doing everything it can to push this expansion:

- The current rush to build is partly because of generous tax incentives offered to utilities under the Energy Policy Act.
- In addition, the Department of Energy is funding the studies that are necessary for approval of new plants.
- Not only that, the DOE is seeking $875 million for nuclear programs in 2008.

According to some estimates, the US could have as many as 50 new reactors by mid-century.

And the US is only one example of a new worldwide trend.

Around the globe, there are currently 439 nuclear power reactors, but their ranks are about to swell substantially.

Just look at this list of reactors being built:

THE GOLD AND ENERGY ADVISOR

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Country	Number of Reactors Under Construction
Argentina	1
Canada	2
China	5
Finland	1
France	1
India	6
Iran	1
Japan	2
South Korea	3
Pakistan	1
Russia	7
Slovakia	2
Taiwan	2
Total	**34**

And those are only the ones being built today. Many more are in pre-construction:

Country	New Reactors On Order or Planned
Argentina	1
Brazil	1
Bulgaria	2
Canada	4
China	26
India	4
Iran	2
Japan	11
North Korea	1
South Korea	5
Pakistan	2
Romania	2
Russia	7
South Africa	1
Turkey	3
Ukraine	2
USA	7
Total	**81**

And look at the huge number of reactors in the proposal stage:

Country	Reactors Proposed
Argentina	1
Armenia	1
Brazil	4
Canada	2
China	88
Czech Repub.	2
Egypt	1

Finland	1
France	1
Hungary	2
India	15
Indonesia	2
Iran	3
Israel	1
Japan	1
Kazakhstan	1
Lithuania	2
Mexico	2
Pakistan	2
Romania	1
Russia	18
Slovenia	1
South Africa	24
Switzerland	1
Ukraine	20
USA	25
Vietnam	2
Total	**224**

Added up, these reactors represent an amazing 77 percent expansion in global capacity.

This mad stampede into nuclear power might surprise you. Nuclear energy was stagnant for almost three decades. Now, the industry is undergoing a massive expansion overnight.

So what has changed?

From a Troubled History to Blue-Sky Potential

Nuclear power is a simple concept. A controlled nuclear reaction heats water and drives a steam turbine to make electricity.

A few decades ago, most analysts were wildly optimistic over nuclear energy. Utility companies promised electricity that was "too cheap to meter."

But the reality turned out differently.

The first serious problem occurred in 1979. Human error and mechanical malfunctions combined to cause a partial core meltdown at Pennsylvania's Three Mile Island power station. Even though no injuries or unusual radiation exposure resulted from the accident, there was public hysteria over the event.

Seven years later, the Chernobyl plant in Russia blew up. This was a steam and gas explosion, not a nuclear explosion (which is impossible at a power reactor, as the fuel is far too impure to explode).

Nevertheless, it was still a disaster. It was also unnecessary. Russian technicians had deliberately shut down the reactor's cooling *and* backup systems, and ran a test 'to see what would happen'. Their criminal stupidity caused a steam explosion that spewed clouds of radioactivity across Russia and Eastern Europe. About 4,000 people died as a result.

Engineers pointed out that a Chernobyl accident could never occur in the US. The Chernobyl reactor had a faulty design. Among other problems, the reactor was unstable against loss of water or a temperature increase. Nor did it have a containment structure. Such a facility could never be approved for construction in the US.

Nevertheless, Chernobyl horrified the American public. The nuclear power industry was already reeling from Three Mile Island and numerous cost overruns at other plants. Chernobyl was the final nail in the coffin. Nobody wanted to hear about cheap energy anymore.

Now, instead of wanting more nuclear plants, the public turned up in droves to protest new facilities under construction. And proposals for new stations were shot down immediately.

Sensing public anger, the politicians jumped on board too. The government clamped down tightly on the entire industry—regulatory control swelled to the point of absurdity.

The US Nuclear Regulatory Commission fined plants for 'safety violations' as trivial as recording maintenance actions on the wrong form. Regulators intervened on the smallest minutia—one former nuclear executive remembers being asked for additional specs on an exhaust fan for a men's locker room.

These and other problems caused a wave of cost overruns, running into the billions. In some cases, taxpayers were forced to bail out troubled utilities—souring the public even further on this form of energy.

By the early 1990s, nuclear power was dead. The existing plants would be allowed to operate until obsolescence, and then would be shut down. And that would be the end of the story.

But it *wasn't* the end of the story. As the years went by, the nuclear industry quietly began to solve its problems.

In the last few years, engineers have made a series of technological breakthroughs. All the industry's woes have been fixed.

And nuclear power is now poised to grow explosively.

…if you'll pardon the pun.

Let's look at why this is true.

Safety. Nuclear engineers have made huge advancements in reactor design. The new technologies are simpler, with fewer moving parts. In many cases, it's now *physically impossible* for the reactors to have an accident.

The chief danger in operating a reactor is overheating. If a core goes into a runaway reaction, or its cooling systems fail, very bad things can happen.

Older designs pump water through channels in the core to cool it down. To moderate the nuclear reaction directly, control rods (made of non-reactive material) can be inserted into the core as desired.

Obviously, these safety systems rely on pumps, motors, and electricity to operate properly. Even though plants in the US have backup systems too, it would be better to not need any backups at all.

And that's what the new designs have accomplished. Engineers have concentrated on "passive safety" designs—where the core shuts *itself* down if anything happens.

For example, Argonne National Laboratory has run experiments with a 19-megawatt reactor. While running the reactor at full power, technicians disabled the entire cooling system. The reactor shut itself down in only 100 seconds—with *no* human or even mechanical intervention.

In the US, nuclear power is the cheapest form of electricity. In 2002, nuclear power cost 1.71 cents per kilowatt hour. Coal was next at 1.85. Natural gas was far higher at 4.06, and oil was 4.41. (Gas and oil would be even higher today, obviously.)

How did they do this? They powered the reactor with fuel rods made of metal (instead of the traditional oxides). When the coolant stopped circulating, the core heated up. Of course, metal expands when heated. So the fuel rods began to swell, which moved their uranium atoms farther apart, which reduced the rods' reactivity. And the reaction slowed and then stopped almost instantly—all by itself.

More Experience. After almost a half-century of operating power plants, the nuclear industry has learned many lessons.

In the 1970s, American plants were on-line less than 50 percent of the time. Today, that number is about 90 percent. Unplanned shutdowns have fallen by 70 percent. And the accident rate for workers is less than one-third of its previous value.

Also, nuclear energy is now a proven technology. Even using the older plant designs, nuclear power has proved to be far safer than other forms of power. Chernobyl is the only serious incident to have occurred, and it caused about 4,000 deaths. That's less than the *annual* rate of deaths in Chinese coal mines alone.

Even using the most alarmist estimates, nuclear power is safe. If we were to convert the *entire* US electrical grid to nuclear energy (which nobody proposes doing), the danger would still be negligible. Statistically speaking, the added risk to your life would be less than the danger from:

- Gaining 0.02 ounces of weight.
- Or driving at 55.007 miles per hour on the highway instead of 55 miles per hour.
- Or switching from a midsize car to a small car. (In fact, this would endanger your life *30 times more* than a grid full of nuclear plants.)

According to a safety study from the Nuclear Regulatory Commission, a nuclear plant will cause an average of 0.8 deaths during its lifetime. For comparison, every coal-burning plant kills about 3,000 people (mostly from pollution).

No Proliferation. One of the concerns about nuclear energy is that it converts uranium into plutonium, which can be made into nuclear bombs. Obviously, the proliferation of available nuclear material is a major concern for national security.

That concern is being laid to rest by a new "pebble-bed" design. A standard reactor has its fuel in the shape of rods, but this new type of reactor uses small particles of uranium embedded into graphite spheres. These "pebbles" are the size of billiard balls, and provide many advantages.

First of all, each sphere contains little fissile material, and the uranium is low-enriched. It would be easier for a terrorist to buy raw uranium on the black market and refine it himself, than to steal hundreds of pebbles, crack them open, and somehow separate the uranium from the graphite.

This design is also very scalable. To make a bigger or smaller core, you just add or subtract pebbles.

Plus, it's very safe to operate. The core can't overheat or go into a runaway reaction. The fissile material is dispersed through the spheres of graphite, with no way for an operator to accidentally speed up the reaction. And graphite has a melting temperature of 2,800 degrees Fahrenheit, making a meltdown impossible.

Pebble-bed technology is a great option for rural power generation. Older reactors require huge containment structures (and billions of dollars). But small pebble-bed reactors can be constructed almost anywhere. Some analysts are even speculating about units small enough to power a neighborhood, or even a single house. (Imagine having your own personal nuclear power plant in your backyard!)

Right now, China is building a 195 Megawatt pebble-bed reactor in Shandong. This test facility is being closely watched by the industry. It's an exciting development.

Waste Disposal. Many people hate the idea of nuclear power because it generates toxic waste. But engineers have made advances here too.

First of all, there are new ways to store the waste. For example, the River Bend plant in Louisiana stores its waste on-site in large casks. A journalist from *Forbes Global* described them: "Virtually impervious to terrorism, shielded with 6 feet of radiation-blocking material, the 50-ton casks are so dense that even a direct hit by a jetliner would have as much chance of breaking containment as a raw egg would have of shattering a bowling ball."

Engineers are also looking at reducing the nastiness of the waste. Current "light water" nuclear reactors create toxic materials (like plutonium) as part of the fission process. These long-lived (and very poisonous) substances are the primary reason that storage is such a problem.

Sixteen countries already get at least 15 percent of their electricity from nuclear power. The leader is France, which gets almost 80 percent. Sweden and Belgium are next, with almost 60 percent each.

However, a "fast reactor" design can actually recycle this waste and use it as part of its fuel. Although there's still waste left over after this reprocessing, the toxicity is dramatically reduced.

Thus, fast reactors can reduce the environmental impact of nuclear energy. China is now building a prototype fast reactor to test this idea.

Gaia theorist James Lovelock and Greenpeace cofounder Patrick Moore are now advocating nuclear energy as the safest, cleanest form of energy for the future. If even these radical environmentalists are on board, that should tell you something about nuclear's future.

Massive New Demand for Electricity

The global appetite for clean, cheap energy is becoming insatiable.

Demand in industrialized countries continues to grow steadily. For example, the US Energy Information Administration projects a growth in electricity demand of up to 54 percent by 2030. This will no doubt be even higher if the new hybrid electrical vehicles become popular.

But even this growth is nothing compared to the developing world. For example, electrical consumption in China has skyrocketed by a staggering *60 percent* just in the last seven years.

Here in *GEA*, I've talked before about the blistering growth rates of China and India. These two countries have over one-third the entire world's population. And their economies are growing by 7 percent (India) and 9 percent (China) *each year*.

They're industrializing rapidly, and have voracious appetites for energy. China alone plans to expand its nuclear power capacity by five times over in the next few years. India's industry will grow several times over as well.

Even if demand were flat in the rest of the world—which it most certainly won't be—China and India alone would be massively bullish for nuclear power. The Energy Information Administration estimates that worldwide nuclear energy consumption will roughly double from 2004 to 2010, then will double again from 2010 to 2015.

Obviously, the world's nuclear power industry is beginning a massive expansion. And all those new reactors will have ravenous appetites for fuel.

And this in turn means…

Uranium's Price will go Ballistic!

A few years ago, nobody wanted uranium. You could hardly give it away.

What About the Alternatives?

Obviously, nuclear power isn't the only way to generate electricity. But all the alternatives have big problems.

Coal. Coal is plentiful and cheap. As a result, it's the most popular fuel for power plants.

Unfortunately, like anything else dug from the Earth, coal has a lot of impurities. When coal is burned, all those chemicals are released from the coal, and go straight up the smoke stack into our atmosphere.

Most of them have nasty effects. The sulfur comes down as acid rain. The mercury settles down into the oceans and contaminates the food chain. (Coal plants in China are one of the primary reasons you shouldn't eat too much tuna fish.) Many other chemicals have similarly bad results.

Coal plants also produce enormous amounts of carbon dioxide, the often-reviled "greenhouse gas." China's plants alone dump some 4 billion tons of it into the atmosphere each year.

Even without the 'global warming' issues, coal is a disaster for the environment. As the "green" movement gains strength around the world, I expect to see coal reviled even more than it already is today.

Hydropower. Damming up a river means you can make a lot of cheap electricity. Unfortunately, it also means flooding, population displacement, and an eventual silting-up of your dam. There are also a limited amount of rivers available for this. Add in the bitter opposition from environmental groups to any more dams, and you have a power source that won't expand much in the future.

Oil and Gas. These seemed like smart choices for fuel… until petroleum and gas prices skyrocketed. Power plants that burn fossil fuels are subject to higher fuel costs, which isn't the case for nuclear plants. (Most of the cost for nuclear power comes from the construction, not the fuel.)

Political forces come into play too. Russian President Vladimir Putin has recently discovered a fun game: turning off the gas supply to his neighbors unless they knuckle under to his political demands. Several European countries have been caught in the crossfire of this, and are now looking for alternative sources of power.

Overall, global oil and gas supplies are dominated by hostile or unstable sources (think Saudi Arabia, Venezuela, Russia). On the other hand, there's lots of uranium in friendly, safe places (think Australia, Canada).

Solar Energy. This is still too expensive. Plus, solar panels are still too inefficient. Many parts of the world don't get enough regular sunshine to generate much power.

Wind. Wind power is unreliable. It also has enormous infrastructure problems. For example, there's currently a multi-year backlog of turbine orders. (A modern wind turbine has over 8,000 components, and has to be custom-fitted with special transformers to match the receiving power network.)

In addition, wind power requires huge capital investments. The turbines need flat, open spaces to work well. Unfortunately, these are usually far from cities, which have all the electrical grids. Connecting the two requires long, expensive transmission networks. As a result, wind can be the most expensive form of energy—more than seven times the cost of nuclear power.

Now we're seeing a massive market shift. And the upward price move promises to be violent, thanks to…

A Huge Supply/Demand Imbalance

Annual uranium production is far below annual demand, as the chart below shows.

About 66,500 metric tons of uranium are required every year. Mining production in 2006 was a mere 39,655 metric tons—only about 60 percent of the market's needs.

That's a 26,800 ton supply deficit. And as you see in the chart, these deficits have been going on for 15 years.

So what has filled the deficits? There are three major non-mining sources of uranium:

- Dismantling of US and Soviet-era nuclear weapons since the end of the Cold War.
- Dishoarding of reserves accumulated by electrical utility companies.
- Reprocessing of spent fuel rods.

But the post-Cold War programs are drawing to a close. And after 15 years of drawdowns, utility stocks are almost depleted.

This leaves only fuel reprocessing to fill the supply gap. However, according to the World Nuclear Association, total global reprocessing capacity is only 3800 tons per year. Obviously, this is grossly inadequate to fill the market deficit.

And this is *before* all those new reactors come on line. The uranium market is about to be hit with a supply shock *and* a demand shock, simultaneously!

The supply/demand curve will be upside down. Utility companies will be desperate for fuel.

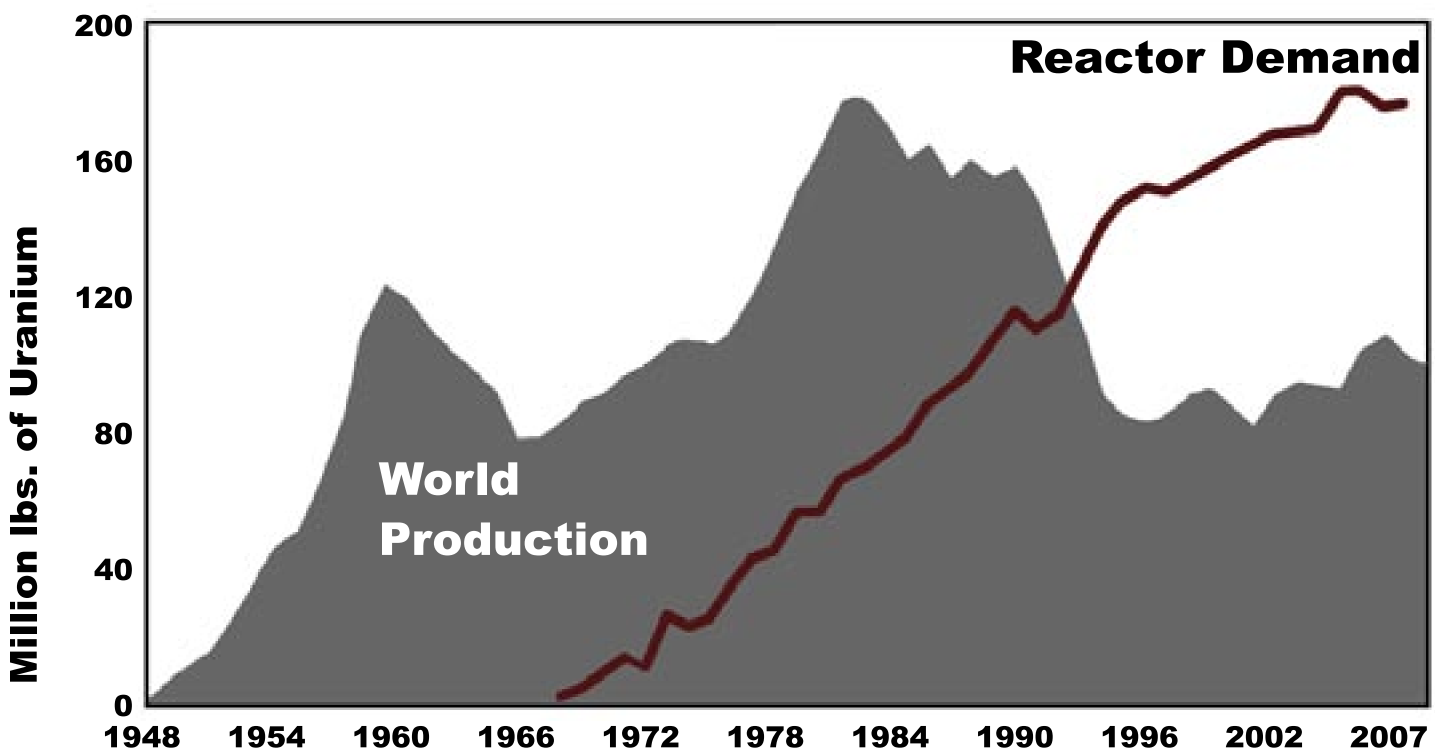
That's why I expect uranium's price to go to the moon!

Other Bullish Factors

Along with everything I've mentioned already, there are several "wild cards" that might come into play. Any one of them could spike the demand for nuclear power—and thus uranium—far beyond the levels I've already predicted.

For example, Russia is now building the world's first floating nuclear power plant. Once completed, it could anchor offshore and provide enough power for a city of up to 200,000 residents.

This is perfect for remote or poverty-stricken locations, where a normal transmission grid is cost-prohibitive. Many countries have already expressed interest in the plant, including China, India, and Indonesia.



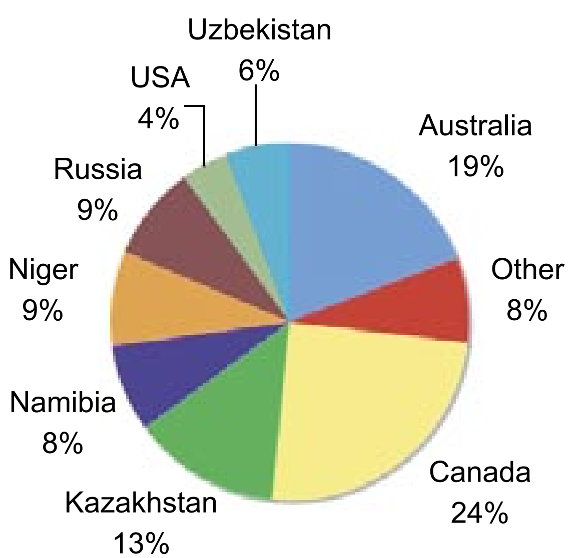
Floating power plants have been suggested before. Obviously, conventional plants (burning coal or gas) wouldn't work here. Only nuclear power can provide the necessary energy without needing constant refueling.

The first floating plant is scheduled for completion in 2010. If it's successful, there could be enough demand for an entire fleet. That's a lot of additional demand for uranium.

Hoarding is another bullish possibility. In the early 1980s, some utilities accumulated five years' worth of fuel in their inventories. Since then, the price has fallen, and they've dishoarded for the most part.

Today, uranium prices are leaping back up. And now that utilities are building more power plants, they have even more incentive to buy extra fuel and lock in the lower prices. If hoarding returns as a large-scale industry practice, we'll see uranium prices spike up even further.

Also, the US has a Presidential election next year. If a Democrat is elected, and the Democrats retain control of Congress, I expect to see a big wave of new environmental legislation. "Greenhouse gas emissions" and other pet environmentalist causes will have receptive ears in Washington. The government might even ratify the Kyoto treaty.



About half of uranium production comes from Canada, Australia, and the US. And this percentage can grow greatly—Australia in particular has enormous untapped reserves. Contrast this with petroleum, where production in the West is plunging, and the primary producers are unstable or hostile to us. In a political sense, nuclear power is a much safer source of energy than oil or natural gas.

More and more, the media is giving lots of time to stories about global warming. You may or may not believe in it, but that doesn't matter either way. Enough people *do* believe it that I expect Washington to start passing laws about it.

And that's a hugely bullish force for the "greenest" of fuels—uranium.

Why We Have a Great Opportunity

I'm not the only one to notice all this bullish news for uranium, of course. In January of 2005, uranium was $20 per pound. As I write this, it's $85.

Did we miss the big move up? Not at all. I think it has a long way to go from here. The public hasn't even noticed the resurrection of nuclear power, and uranium is *way* off the radar screen of the average investor.

When they do finally notice… when you see uranium stocks being touted in the mainstream financial media… *that's* when the public will beat down the door to get in. And that's when the price will soar to prices never before seen.

I'm sending you this bonus issue now because of recent market activity. Uranium hit $136 this summer, but has had a sharp pullback.

Why? Because the US Department of Energy sold 520,000 pounds of the stuff in August. This was a big amount to dump on the market all at once, and the market took a pretty big hit.

Nevertheless, the bullish forces for uranium haven't changed. Nor will there be another DOE sale like that one—it was the final sale under the Energy and Water Development Appropriations Act. This means this price dip is temporary.

Could it dip down again from here? Yes, of course. When a market goes up almost 700 percent in just 31 months, a few pullbacks now and then can be expected.

But I believe the overall trend from here is up—*way* up, in fact.

The best way to profit from uranium is with the right stocks. I wanted to send you this bonus issue first, so you would understand why I'm bullish on uranium. For my actual stock recommendations, watch your email for the *GEA Updates*.