Pros	Cons
Lower carbon emissions than coal	Although there would be reduced carbon emissions, there will still be great amounts of carbon being sent out into the atmosphere
The necessary grid lines are already in place. Wind and Solar would require building new grids first.	Expensive! One nuclear reactor can be 8-10 billion)
There is potential to renew radioactive waste after it cools.	There is the risk that fuel can be used for weapons grade materials.
There is potential to help control/lower deaths related to air pollution.	A reactor loses millions of liters of water through evaporation each day
It produces much less waste than coal.	Plants produces harmful radioactive waste that needs to be watched and controlled for centuries.
A plant takes up much less space than would be needed to set up solar panels or wind turbines, while putting out more energy.	It takes 10-19 years to build one power plant.
Consistent where solar, wind, water is not.	
New technology allows for a more safe plant. When building the designers can account for earthquakes, tsunamis, etc.	There is no such thing as an entirely safe nuclear plant so there is still the potential for nuclear explosions, damage, and radiation poisoning
	Plants are appealing targets for terrorists.

Pro:

- Low carbon emissions
    - One significant contribution to climate change is the high levels of Carbon Dioxide that is emitted into the atmosphere. The decrease in carbon emissions would be a great help in reducing the effects that the gas had previously caused.
- The necessary grid lines are already in place. Wind and Solar would require building new grids first
    - Building means taking new land, money, and resources to build what would be needed. That not only can destroy existing land but the construction could result in carbon emissions which is exactly what they don't want. Having the grid lines needed for power plants, it only makes sense to use those instead of having the start all over again.
- There is potential to renew radioactive waste after it cools
    - Although not developed there is the possibility that the waste can be reused which means that the waste will not be negatively effecting the environment and instead can be turned around and used for more energy.
- Potential to help control/lower deaths related to air pollution
    - With lower carbon emissions come lower death tolls related to air pollution. Not only does the lowered carbon emissions help reduce the effect it has on global warming but it helps the quality of air and quality of health for people (related to air pollution)
- Much less waste than coal
    - Less waste means we don't need as much space to contain that waste and less carbon emissions.
- A plant takes up much less space than would be needed to set up solar panels and wind while putting out more energy
    - While wind and solar power are clean they need a lot of land space to get a significant return of energy. A power plant would take up less space and produce more energy, meaning we can create more of them with less space than would be used for equal energy from other renewable sources.
- Consistent where solar and wind are not
    - Wind power needs wind, and solar power needs the sun. If for any reason those are not available (night, cloudy/storm, no wind) then those sources are not producing needed energy. A power plant is not dependent on an external uncontrollable force of nature, thus is consistent.
- New technology allows for a more safe plant/can account for earthquakes and tsunamis
    - Although there have been tragedies, such as in Fukushima, we have the technology to prepare for disasters. In Fukushima, they had defense for a significantly smaller tsunami but now there can be appropriate measures taken in

the case of any sort of natural disaster.

Con:

- There is no such thing as an entirely safe nuclear plant
    - Having a nuclear power plant means having the risk that there could be complications because of something internal or external (for example an earthquake) which would lead to disastrous damage and possible death to anyone in the vicinity.
- Expensive (Nuclear Reactor can be 8-10 billion)
    - To build just one plant could cost us billions of dollars, let alone building enough to be able to take coal out as an energy source. Where the money would come from could cause backlash. Anyone who disagrees with nuclear power would most likely show resistance.
- Risk that fuel can be used for weapons grade materials
    - With having nuclear power plants comes the risk that someone will take the fuel and use it to create deadly weapons that could cause catastrophic damage and death wherever it would be used.
- Loses millions of liters of water through evaporation each day
    - Power plants would lose massive amounts of water that could be used in other ways. This amount being evaporated every day could cause changes in precipitation because of the amount being put back into the atmosphere at such fast rates.
- Produces harmful radioactive waste
    - Radioactive waste needs to be monitored and secure until it cools and is no longer dangerous, which is centuries. Having large amounts of waste building up over the years can result in large pockets of radiation, depending on how they decided to store it and where.
- Plants are appealing targets for terrorists
    - Power plants are easy to pick out and very appealing for terrorists. This point tags along with the point made that there is still risk associated with having nuclear plants. Even without natural disasters, there is still uncertainty about organizations that might want to target a plant.
- Although there would be a reduction in carbon emissions, there will still be great amounts of carbon being sent out into the atmosphere.
    - Although the drop in emissions would help, there would continue to be negative effects resulting from carbon emissions. So the effects would be slightly less but still present.
- It takes 10-19 years to build one plant
    - This means the positive effects of the plant are delayed buy the building process.

Just as I previously pointed out about building a new grid, the process of construction itself can cause emissions of gases into our atmosphere and further the effects of global warming.

figure 1: http://math.ucr.edu/home/baez/ecological/nuclear_power_hansen.jpg
figure 2: http://www.newscientist.com/data/images/archive/2805/28053601.jpg