In this paper we will discuss Nuclear power and whether or not politicians and environmental agencies are being too quick to abandon it. We will present the risks and benefits of nuclear power compared to fossil fuels to attempt to determine the possible risks that may be making environmental agencies stray away from the power source. We will also look at benefits that may be reason to continue using nuclear power and reasons to replace coal power with nuclear. For this paper we will be observing fission-electric power due to its high use and extreme efficiency in generating power.

Nuclear fission is a process in which a nucleus splits into parts and releases free neutrons. This produces a large amount of energy, mainly in the form of electromagnetic and kinetic energy. This heats up the original material and is the core of what powers a nuclear power plant. Nuclear power plants work by using chunks of nuclear material called “rods”. Nuclear fission occurs in these rods which is used to heat up water until it is steam, that steam is then forced through turbines. These turbines are linked to electrical generators and is where the power generation happens. Problems that arise with this method of power generation is that the nuclear rods tend to get too hot and require advanced cooling. Most commonly fluoride salt, sodium, or liquid metal are used in the cooling section of nuclear power plants.

We will be exploring the benefits of nuclear power as reasons why politicians and environmental agencies who are straying away from nuclear power may be doing so prematurely. While certain politicians may have ulterior reasons to act against nuclear power, these reasons will objectively state that nuclear power is a future proof method of power generation. The environmental risk nuclear power presents is far less from current popular non-renewable power generation methods, despite what the media and lobbyists may be saying. Nuclear power is vastly more reliable versus coal power and other fossil fuels due to its ability to stay on for long amounts of time without need for refuel. On top of these points, nuclear power also costs less when run for a long time due to the cheap cost of the fuel and the need for minimal quantities of fuel.

Environmental agencies however may be observing the risks of nuclear power plants and determining if there should be more rules and regulations surrounding the creation and operation of Nuclear power plants. The fact that nuclear power plants have such a large concentration of nuclear resources in one specific area makes them large targets for domestic and international terrorists. With multiple examples of people breaking into these compounds to show their vulnerabilities, an attack is clearly not outside the realm of possibility. Even if an attack does not occur, due to human error or natural disaster, accidents happen on their own and can have devastating effects on the residents surrounding these plants and the land they occupy.

With these points we will determine whether or not politicians and environmental agencies are being too quick to judge nuclear power as an alternative power source.