

Power Plants

1. A lot of energy is lost in typical power plants in two places, the boiler and the condenser. The exit temperature of the gases coming off a typical boiler are in the 750 to 850⁰F range. Those gases still have a great deal of energy in them and it just goes up the stack. In fact almost 1/3rd of the energy contained in the fuel is lost this way. The other place where a lot of energy is lost is in the condenser. The steam exhausted from the turbine in a power plant still has a lot of energy in it too. That energy is lost in the process of condensing the steam. Again, almost 1/3rd of the energy in the steam is lost this way.
2. SunDancer operates at lower temperatures and pressures, so whenever the system is using gas, the exit temperature is about 350⁰F. This means we lose a lot less energy up the stack, and this is a big deal. It makes SunDancer a lot more efficient than other systems.
3. Optimized Re-injection eliminated the condenser, and the turbine exhaust is pumped back into the boiler.
4. With a Ring Blade turbine and Optimized Reinjection we have a system that can get about 2/3rd of the energy available in the heat source.