

# Energy planning proposal



**ASSIGN  
BUSTER**

City planning for a major metropolitan area such as that of Stockton, California takes much attention to detail, with the necessity to look at all energy options at the forefront of tasks. Selecting several options for energy sources and determining the best way to spend the initial budget will ensure a smooth transition into the future. As the population of this city grows, it is essential to consider alternative energy sources to mitigate the demand for power and the strain on future generations and their budgets.

Stockton, California, with its 400, 000 plus residents requires 3, 000 megawatts of energy monthly. The first initial budget for this year is ten billion dollars, with a budget of one billion for each following year. Therefore it is crucial that the city invest in less expensive, renewable energy sources for future consumption. It must be kept in mind that the city will expand and the population will continue to rise, therefore energy consumption will increase along with the populace. The following is a breakdown of the energy resources Stockton will use. Energy Source

Initial Cost	Monthly Cost	Energy Output
Natural Gas	\$1. 5 billion	\$1, 000, 000 1, 000 Megawatts
Solar Power	\$3. 5 billion	\$300, 000 1, 000 Megawatts
Hydroelectric	\$500, 000	1, 000 Megawatts
Wind power	\$ 3 billion	\$500, 000 1, 000 Megawatts

To ensure the city will remain within the designated budget, it was first a requirement that investments be made into cost effective sources, such as that of Natural Gas. Natural Gas is of course a non-renewable resource; however the benefit of low-cost and a high output of energy outweighed the

disadvantages of the negative effects on the environment. While the number of natural gas residential customers in North America has grown by 70 percent over the last 40 years, customers today actually use nearly 40 percent less natural gas (specktraenergy. com, 2013). Greater efficiency in production, delivery and usage means fewer greenhouse gas emissions. Natural Gas is clean, the cleanest burning conventional fuel, producing 45 percent less carbon dioxide than coal.