

Full Title of Document: The Essential Essence Of Electricity

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## The Essential Essence Of Electricity

**Has the introduction of electricity been a blessing or a burden on humanity since it was introduced to us in 1759?**

**Electricity is one of the most resourceful forms of energy that mankind has ever seen**

Mendell, Brent N.; Brunwick, Lisa P. (2012). Modular electricity storage benefits and costs

*Modular electricity storage benefits and costs* is written by a combination of authors Mendell, Brent, Brunwick, and Lisa (2012), it mainly focuses on the prosperity that electricity has given to us over the years. It basically entails a lump sum of the advantageous qualities that electricity has brought to the table, lays out America's use of electricity ratioed to its storage and how its' stored, and how costly it is to store electricity and how costly it is to maintain in general. The explicit audience for this report includes utilities and electricity providers, electricity storage vendors, engineers, and energy policymakers and researchers. The implied audience would have to be people who are generally curious in electricity and would like to learn more about it in its entirety. The primary argument mainly encompasses the fact that the benefits of the electricity will ultimately be greater than the cost of electricity and storage in its entirety. The authors went on to conclude that "the most compelling value propositions for modular energy storage will likely involve strategic aggregation of two or more benefits so that benefits exceed costs." (p. 105). The authors go on to prove this by implementing graphs into the book that display that in three out of four propositions that the benefits would end up being greater than the cost conclusively on (p.104). This source primarily utilizes statistics and numbers to get their point across. This source is reliable because the utilized the lab Sandia. Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin Company, for the United States Department of Energy's National Nuclear Security Administration.

Tillett T. (2011) Public Health Impact of Coal and Electricity Consumption: Risk-Benefit Balance Varies by Country

*Public Health Impact of Coal and Electricity Consumption: Risk-Benefit Balance Varies by Country* was written by Tillet (2011), it embodies the fact that although electricity provides a lot of useful amenities it also comes along with some tedious disadvantages, almost like a double edged sword. With the upsides, the downsides follow immediately after. The explicit audience is the persons who are concerned about the planet, persons like archaeologists and environmentalists. The implied audience is persons who are concerned on whether or not electricity is good for humanity. The primary argument is that although electricity helps the earth and the people who are on the earth, it subsequently simultaneously damages it at the same time. Tillet explains that "Access to electricity contributes to good health by powering infrastructure for clean drinking water and sanitation and by reducing the need...generation." (para. 1) Tillet's research led her to vaguely link electricity usage to weird contaminants being found in pregnant women. The evidence proves that electricity and coal emit harmful contaminants which are negative against humans due to the fact that in a study, chemical analytes were detected in 99%-100% of pregnant women. This source is reliable because

it's a scholarly article that has been peer reviewed to prevent mistakes and to ensure its factuality.

Estimating the Global Public Health Implications of Electricity and Coal Consumption  
***Estimating the Global Public Health Implications of Electricity and Coal Consumption*** was written by Gohlke (2011) it envelops the relationships among electricity use, coal consumption, and health outcomes but mainly the health outcomes correlated to electricity use. The explicit audience is the countries who have experienced to the hefty infant mortality and lowered life expectancy due to electricity use. The implied audience are people who are interested in the health implications that electricity and coal may bring to humanity. Tillet's argument is that electricity and coal use are linked to increased infant mortality and lower life expectancy. Gohlke explains "Increasing coal consumption was associated with increased IM and reduced LE after accounting for electricity consumption." (para.3) The evidence is represented in the form of graphs littered throughout the article showing that: Increased electricity consumption in countries with IM < 100/1,000 live births does not lead to greater health benefits, whereas coal consumption has significant detrimental health impacts. This source is reliable because it's a scholarly article that has been peer reviewed to prevent mistakes and to ensure its factuality.

Barone J. (1987) Is screen time making you sick? Using your computer or phone at night could harm your health. (BIOLOGY: Biological Clocks//PHYSICS: Light)

***Is screen time making you sick? Using your computer or phone at night could harm your health*** was written by Barone and it revolves around the theory that questions that if using your electrical devices at nighttime or anytime right before you go to bed is harmful to you. The explicit audience are people who fall asleep looking at a screen every night. The implied audience is are persons that are curious on the affects that the electrical appliances may have on their bodies. Barone's head argument is our bodies were crafted to soak in sunlight in the day and overnight stay in darkness. Barone went onto elaborate that "Stevens realized that people in industrial societies are exposed to a lot of light at night. But our bodies are adapted for bright sunlight during the day and darkness at night." (p.10) The evidence behind this displays that in 2007, the World Health Organization declared nightshift work to be a "probable carcinogen," meaning it probably causes cancer. (p.11) This article is reliable because the article discusses a study by epidemiologist Richard Stevens at the University of Connecticut on the link between light exposure and health, particularly on a person's natural circadian rhythm.

Sorensen L. (2013) Electric advantage: converting a diesel-powered dredge to electric power offers benefits that go beyond cost savings

***Electric advantage: converting a diesel-powered dredge to electric power offers benefits that go beyond cost savings*** was written by Sorensen and it basically revolves around the fact electric power is way more efficient and beneficial. The explicit audience is people who use diesel or disregard electrically powered means of transport. The implicit audience are people who are interested electrical power. Sorensen's main argument is that diesel powered appliances are obsolete due to the plethora of benefits that electricity brings to the table. He expresses it when he composed ""That's a huge savings," Johnson says. "But the benefits of the electric motor go even further. There's far less maintenance because monthly oil changes are eliminated." (p.

20) Sorensen goes on to record that diesel motors actually cost more to maintain than being electrically powered. This is shown when he expresses that Electric motors don't need a radiator to cool the power unit and it displays in a study that shows that diesel engines cost approximately "\$130.24" to maintain per hour, whereas electric powered engines cost about "\$65.61" to maintain per hour. This is about half the cost. This article is somewhat reliable because Loretta Sorensen is a freelance writer in Yankton, S.D., who produces material about a variety of topics, serves as a ghostwriter, and has authored her own books.

Lekshmi S (2010, March 8) Importance of electricity Retrieved from [www.thehindu.com](http://www.thehindu.com)

***Importance of electricity*** was composed by Lekshmi and encompasses the usefulness of electricity and its positive effect it holds on society. The explicit audience are people who use electricity every day and neglects it and doesn't realize its true value. The implicit audience is the persons who interested in what electricity does for us. Lekshmi's argument is that electricity has a wide variety of notable appliances in our everyday life. This is seen when she says "All these provide comfort to people. In factories, large machines are worked with the help of electricity. Essential items like food, cloth, paper and many other things are the product of electricity." (para. 1) Lekshmi goes on to record that Modern means of transportation and communication have been revolutionized by electricity. This is seen when she explains "Electric trains and battery cars are quick means of travel. Electricity also provides means of amusement, radio, television and cinema, which are the most popular forms of entertainment are the result of electricity." (para. 2) This article is somewhat reliable because it has a decent amount of five-star reviews on the website. Moreover, it relies on realistic facts that everyone actually experiences in their everyday lives.

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