



*The pennies and the dollars add up while municipalities continue to use outdated, inefficient lighting systems that waste power, light and money for the taxpayer.*

It is estimated that the United States loses over 4 to 10 Billion dollars per year in wasted light. A look at the light pollution map of the U.S. will tend to verify the large scale light waste that is prevalent there and throughout North America.

Major components of a community's financial costs are those of electrical power and streetlight maintenance. For some communities the cost has been too high and they even have stopped lighting the community or parts thereof. Other communities have told their lighting departments to find a way of cutting lighting costs or face cuts in staff.

Contrary to popular opinion, there is no Canadian law that forces communities to light their streets.

Most communities light their streets and even their alleys due to concerns from citizens over safety and security. This has led to an explosion in community lighting and power companies have fed this fear over the years in order to sell more power and boost profits. Research now indicates that “less is far more!” when it comes to lighting and reducing crime if lighting is designed and utilized appropriately.

Of course, the cost for the power is passed on to the citizens of the community through taxes which continue to climb as well. Once the community has become used to an amenity it is very difficult to remove it. The community must make choices as to what it is willing to pay for and what it wants. Politically, this may be difficult.

Over the years the cost of power has continued to increase unabated. This is due to the ever increasing cost of resources needed to produce the power and bring it to market. Rapidly depleting resources and the use of unsustainable resources as fuel pushes the costs higher again as well as creating environmental problems due to increased land, water, air and sky pollution. This creates costs for prevention and clean up.

Power demand has also increased, forcing prices to continue the upward spiral. New uses for electricity increases demand as well.

Our ‘throw-away’ society supports the attitude of squandering electricity in day to day uses. Leaving lights on when they are not being used is one example and this applies to lighting in and outside of buildings and to streetlights as well. Attitude changes are vital to controlling and reducing wasted light and reaping the financial rewards that will follow.



### The Cost of Waste Light

All aspects of community life, including industry, contributes to waste light within the community. This waste light may contribute significantly to the costs of running a facility. In many cases, no attempt is made to change attitudes and power-saving technologies in order to reduce the abuse of light and waste. Financial savings are significant when a concerted effort is made to create changes and implement them throughout the system.

Some companies have got the message and are now retrofitting their facilities with energy-efficient light fixtures and control sensors, timers, etc. They are also utilizing this increased awareness to design new facilities which follow Light-Efficient Community approaches. In the process they are dramatically reducing power use and costs while still comfortably and effectively lighting and running their facilities.

People often forget that our eyes do adapt to the dark and we do not need the high levels of light usually found in use in most situations. We have become used to high levels of light over time and through conditioning. However, this can be easily changed.

We can reduce the use of electricity and costs by choosing appropriate low-energy, high efficiency lighting fixtures and managing the way we use light at home and in our communities. We can cut our costs through using appropriate technologies such as CFL's and LED's, computers and sensors.

Some people have unthinkingly suggested that since we can save so much electricity by using LED streetlights we should now install *more* lights, exacerbating the problem of over-lighting which already exists in most situations!

Sensor and computer-controlled lighting can also dramatically reduce our power bills at home and work while still providing appropriate levels of light when and where needed.

We can learn new attitudes towards light and power use and get used to living without the tremendous amount of over-lighting found in most communities. We can learn to live and work with less light as we over-light most areas most of the time. We can learn to control when, where and why we are using light.

In conclusion, we can expect the demand for electrical power to increase while prices do the same. However, changes in attitudes, habits, and technologies can made dramatic differences in our power consumption and associated costs.

The question that must be asked of councils: ***“There are new, viable, efficient LED lighting systems which will save us power and money while providing better lighting to our community; improving our health, safety, security and quality of life and protecting the environment. Why do we continue to waste taxpayer’s money on costly, inefficient, wasteful and badly designed lighting? ”***