

NEW ENERGY IMPACT ON SOCIETY

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IMPACT, NEW ENERGY '93

Examples of the impact on various areas of our society are listed below:

Industry

- The current energy industry which is based on extraction, processing, and burning fossil fuel will be severely impacted by loss of market, which will affect all levels from mines to financial markets.
- The transition will take many years, but eventually oil will be used for more profitable applications such as pharmaceuticals, chemical feed stock, and plastics.
- Industrialized countries will be independent from the oil exporting countries that caused such huge expenses as the Persian-Gulf war. Third world countries will be able to divert oil-importing funds to be used to develop a higher standard of living.
- Many new companies will be formed around new products and new services.
- Energy intensive industries, such as refineries (of both metal and chemicals), food processing, and transportation will have lower costs, but will have to become restructured to utilize this new equipment. These new industries will create new jobs, new taxes, and demands for new or expanded governmental services.

Environment

- There will be no adverse environmental impact, which will create strong legislative pressure to curtail the use of any equipment that causes pollution in our air, rivers, lakes, and oceans.
- The burning of oil and gasoline may become illegal in many areas of the country or the world which are now troubled by pollution from transportation, industry, and energy production.
- The immediate concerns for air and water pollution will lead to new methods of treating water and sewage with low cost energy.

There is nothing more difficult to carry out, nor more doubtful of success, nor more dangerous to handle, than to initiate a new order of things. For the reformer has enemies in all those

...I seem to have been only like a boy playing on the seashore, and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me.

ISAAC NEWTON

of it.

MACHIAVELLI,
THE PRINCE

Agriculture

- Improved energy sources will create many dislocations in opportunities among the agriculture industry because of heating greenhouses, pumping irrigation water, desalination, and local processing of food and fiber; all of which use energy.
- New legal issues may emerge in terms of water rights and access rights.
- Any area in the world can now become cultivable due to the pumping and production of water as well as the correct environmental conditions to grow any crop.

Transportation

- Governmental agencies that depend on gasoline tax dollars will be strongly impacted. As the oil and gasoline consuming automobiles, trucks, planes, and ships are replaced with vehicles powered by new energy systems, the taxes collected for roads, highways, waterways, and airports will decline rapidly.
- While existing internal combustion engine vehicles will still need servicing, many gasoline refueling stations may become obsolete.
- Distribution systems for gasoline and fuel oil will gradually be reduced as electric and water-powered cars increase in numbers.
- The entire vehicle licensing and taxing regulations will be modified.

Property Valuation

- Strong economic incentives to switch to new energy systems will decrease the value of plants and equipment using existing energy systems.
- Plants will be abandoned when companies that are slow to adapt to new energy changes become bankrupt.
- Tax payments in many built-up communities will decline while new industrial parts may add markedly to the tax income base of communities who have planned for these new industrial developments.
- City and state governments will need to offer tax and other incentives to lure manufactures of new energy systems to their areas.

Finances

- There will be enormous new business opportunities in the manufacturing, marketing, and financing of new energy systems and services. Some of these new companies will grow to be future IBM's and 3M's of the 1990's.
- Partnerships and affiliations will be formed with existing companies too slow to react to the initial wave of change.

The first thing to realize about the ether is its absolute continuity. A deep sea fish has probably no means of apprehending the existence of water; it is too uniformly immersed in it: and that is our condition in regard to the ether.

SIR OLIVER LODGE,
ETHER AND REALITY

- Investment regulatory agencies will be strongly impacted. Many companies will be formed that are technologically unsound. Investors will gain or lose depending on the management skills of these new companies. Government agencies will be faced with a rapid proliferation of companies based on some association with new energy systems.
- Fortunes will be made and lost based on capital presently invested in existing energy systems, particularly utility companies.

Education, Retraining and Social Services

- Every company that loses market share will release workers who need to be retrained in new skills. Companies that gain market share from new energy products or services will require an educated work force.
- Human welfare agencies at all levels of government will be forced to deal with the welfare and training of displaced workers from current energy systems.
- Courses dealing with the marketing, management, and scientific aspects of new energy systems will be added to university and adult educational courses.
- Distortions made by these industrial changes will impact job security. Layoffs, bankruptcies, and business closures will have an effect on the demand for government social services. Unemployment benefits, job service challenges

Summary

The preceding were just a few examples of the enormous impact new energy technologies will have on a variety of industries and government entities. No other technological innovation, including the marvelous developments of the micro-electronics, will ever cause as much change in lives as will the successful development of enhanced energy systems.

History has shown time and again that important scientific discoveries generally happen only when someone steps outside the limits of his traditional discipline and looks at something from a fresh point of view. Then what should have been obvious all along comes into focus.

CAPTAIN EDGAR D.
MITCHELL, FORMER
ASTRONAUT