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Research article

A STUDY OF VARIETY OF THE NEW AND RENEWABLE ENERGIES, APPLICATIONS AND CHALLENGES WITH AN APPROACH IN IRAN

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ABSTRACT: Gaining access to sources of clean and cheap and cheap energy is regarded as the most significant elements in the sustainable development and, on one hand, the fossil fuels (oil, gas and coal) are, today, used as the most important source of energy production in many country as well because the fossil fuels have been one of the significant elements in the development of the developed countries, but bio-environmental pollutions resulted from it's consumption, worries arisen from finishing of the fossil fuels and, also, purpose of preserving of the oil and gas resources for the future generations have created this motivation in various countries of the world, including the developed countries to resort to use the new and renewable energies. Therefore, study of a variety of the new and renewable energies, economical and bioenvironmental profits/advantages and the challenges in front of them gas been dealt with in this article. Results of this study show that, with regard to this point that Iran is of a good talent in order to use the new and renewable energies, logical development of these valuable sources seem necessary completely. Thus, support of those who are active in this section and elimination of the problems and difficulties which prevent from the mass production of this energy and development of the renewable power plant in the market leads to increase of the lines of producing this energy in the country. Through this task, a great industry is to be shaped in the country and, in according with it, employment is created for a great group, and it can be taken steps through this way in direction of sustainable development.
Key words: new and renewable energies, economical and bioenvironmental advantages, global market of demand for the new energies, global market of supplying of the new energies.

INTRODUCTION

Of the most important effective elements in the sustainable development, is to gain access to sources of clean, sustainable and cheap energy. In fact, possession of appropriate energy source is the most predominant economical factor of the industrial societies after the human forces because energy is a basic requirement for continuation of the economical development, social welfare, improvement of the life quality and security of society. And considering that the rate of energy consumption is high in the next century, this important question is to be raised that: will the sources of fossil energies be responsive for the energy need around the world in order to survive, evolved and develop? Answer to this question is negative for two important reasons: Firstly, limitation. Secondly, non-renewability of the fossil fuels. In the recent years, various countries, whether developed ones or developing ones, have focused increasing attention the renewable energy in order to create diversity in the usage of energy sources and reduction of dependence on an energy carrier and bio-environmental considerations in order to gain access to sustainable energy and, subsequently, economical development. This energy can be used to produce electricity in the field of transportation. The renewable energies have the long-time advantages, including security of energy, creation of occupation/ employment, business occasions and sustainable development. In recent years, worry resulted from finishing of the renewable fuels and bio-environmental pollutions compelled the various countries of world to search for the replaced energy resources for these fuels. The energy source which can possess the required reliability, being a proper replacement for fossil fuels, being accessible technologically, being in conformity with the bio-environmental standards maximally and, at same time, guarantees the ability of the countries in supplying of the domestic consumption in order to produce electrical energy, thermal energy and transportation; the above mentioned energy source has always been in direction of one of important problems which has preoccupied the collective thinking of various countries and influenced on the plan and perspective of these countries around the world in recent years. By day-increasing increment of the world's population and limitation of energy in future, gaining access to energy in sufficient amount will be more difficult for many reasons.

Even if the governments are able to control the population's growth, it is predicted that world's population will be more than 10 milliard individuals by 2020 and, also, it is predicted that there exists more potential for population's growth within the next years in the third world countries due to youthfulness of population and entrance of these new generations into the economical market of the developing countries leads to explosive increase of demand for commodity, services and energy. By increase of the world's population, while requiring for increase of sufficient food stuffs and with optimum quality to create the feeding security a world-wide scale, it is required that enough attention is to be paid to paid to preservation of the biodiversity and bio-environment.

Regarding the international perspective of energy consumption in 2013, the U.S. administration for statistics and information of energy in it's newest report predicted that rate of energy consumption in the world, considering the consumption growth in the developing countries, will increase up to 56% within next thirty years and by 2040 (A.D.) under the present policy-makings, the world will consume more energy until 2040 (A.D.) and more greenhouse will be produced too. The principal port of this complexity/ problem has been achieved as a result of noticeable increase of the rate of consuming the fossil fuels. While role of renewable energies and nuclear energy in provision of the required sources of the world lings' energy becomes more richly colored, fossil fuels. Will be responsive for a most part of the energy needs of human in the same way. Based upon this, the fossil fuels will supply 80% of the energy required by world in such a manner until the end of 2040 and this affair will be accompanied by 40-percent increase of leakage of carbon dioxide [1].

History of usage of the new energies

Today, growth of energy consumption in the industrial modern societies, in addition to risk of swift finishing of the fossil sources, has confronted the world with the bio-environmental irrevocable and threatening changes. Thus, a special role has been entrusted to renewable sources of energy in the international plans and policies aiming at the global sustainable development. So that, the European Union, for example, has targeted 12% of the required electrical energy in 2010 through the new energies [2]. In Iran, usage of solar energy and wind energy in the techniques applied in the traditional architecture of buildings is, also, observable in the dry regions of Iran so that provision of the ice and cold water in hot summer is feasible easily. In these architectural techniques, wind towers have been used to take and circulate cold air into the buildings and technique of making of vent in the domed-shape of ceilings and in the apex of angles for air circulation has been benefitted by employment of the cooling- through- air systems and the systems of making and keeping of ice have been established.

Although development of some of these techniques traces back to a few-thousand- years history, but a lot of these cooling systems are, also, used at present.

A variety of the new and renewable energies

In Iran, due to the country's geographical vastness and existence of the dispersed and remote centers of the energy consumption, usage of a variety of the renewable energies such as water energy wind energy, solar energy, thermal-land energy, biomass energy and bio-gas energy is more cost-effective [3].

Wind energy

Conversion of the wind energy into other useful kinds, including electricity force is known as wind force. Wind energy turns into different sorts by the wind turbines. By use of the electrical generators, wind energy can be converted into the electrical energy. Wind mills have the engines which can produce energy using the wind. This energy is used in the villages and for agricultural consumptions such as abrading, pumping, hammering and various needs in the farms. Wind energy is more used continuously in the regions, including Denmark, Germany, Spain, India and some are as of U.S.A.

Profits and advantages

One of the greatest profits of the wind energy is that it exists in the mass quantities. Also, this energy is renewable. One of it's other privileges is that it is dispersible and cheap in many cases and, also, leads to reduction of irradiations of the poisonous gases. Also, traditional methods of energy production are very profitable due to they become cheap consciously. In spite of it's cost-effectiveness, it is said that it decreases effects of the greenhouse gases. The wind energy produces no pollution and, also, is one of the infinite sustainable sorts of energy. Until sun exists, wind will be existed. Theoretically, if total force of wind is available for human, it's rate is 4 times the total rate of energy which is available in the world and no country is dependent on it. When price of oil and petrol is increasing, wind energy can be an appropriate response [4].

Disadvantages

Nevertheless, there are some disadvantages regarding this energy as well which may reduce it's popularity. Despite the fact that cost of production of this energy is very low, even, multiple turbines must be made today to be able to produce an appropriate quantity of the wind force doesn't produce pollution, it's turbines produce a lot of noise which, in fact, leads to the sound pollution. A lot of the lands being susceptible for this work, namely where the wind energy can be produced in the extensive dimensions possibility of maximum rate of wind production. Thus, issue of it's effectiveness through making of the auxiliary stations and transfer lines may get involved in hesitation. Wind force can not be sent.

Therefore, this same problem causes that it is doubted in it's naming as the most primitive supplier of energy. Due to locating in the special geographical situation, Iran possesses an unique wind potential. In recent years, noticeable activities to use wind energy in Iran have been conducted. In this regard, 158 wind turbines with total capacity of 90.6 megawatt have been installed in different parts of Iran since 2009. These turbines have produced electricity more than 226.8 gigawatt/hour. Since some technologies applied in the wind energy are useful to meet the needs of the rural regions and have capability of production in Iran, the desired technologies can be used for purpose of application in the irrigation and agriculture purposes, including electricity production.

Water energy

Of a variety of the country's hydro-electric power plants, big, medium, small, mini and micro sizes power plants can be named. At present, Iran is one the propounded countries in the world from viewpoint of construction of domes and management of water resources. Total potential of Iran's hydro-electric production has been estimated 50 terawatt/hour. This potential includes Karoon, Dez and Karkheh rivers with potential of electricity production of 30, 9 and 6 terawatt/hour, respectively. Potential of the other rivers in Iran has been estimated 5 terawatt/hour. According to the last statistics, capacity of the Iranian hydro-electric plans has been estimated 37.4 gigawatt. At the end of 2009, 44 exploiting power plants in the country with capacity of 7704.7 megawatt have produced electricity at rate of 7233.2 gigawatt/ hour approximately.

Solar energy

Solar energy is the greatest source of energy in the world. This energy is clean, cheap and endless and producible in most regions of the earth. Limitation of the fossil sources and consequences resulted from bio-environmental and global-climatic changes have created appropriate opportunities for competition of the solar energy with fossil energies, especially in the countries with high potential of radiation sun is one of the main sources of renewable energies which can be employed as a useful resource and supplier of energy in most parts of the world. Sun is factor and origin of the various energies which exist in nature, including fossil fuels which have reserved in the high depths of land, energy of water falls and wind, growth of plants, animals and human beings, and all organic materials which can be converted into heating and mechanical energy, waves of seas, power of ebb and flow which results from gravitation and movement of earth around the sun and moon all of which symbols of the solar energy [5]. It's usage doesn't leave behind undesirable effects and is the most appropriate way to gain access to energy and economical growth and development. Despite the fact that Iran is counted as one of the oil-rich countries of the world and possesses the great sources of the natural gas, execution of the solar plans is obligatory due to intensity of sun irradiation in most regions of Iran and can be accompanied by an important cost-effectiveness in consumption of oil and gas,. Considering that Iran has 300 sunny days and is regarded in the row of the best countries from viewpoint of quantity of this energy, usage of the solar energy is not only necessary, but also will become unavoidable in future.

If exploitation from the solar force comes true and takes place in Iran, it can be hopeful that Iran will be converted into one of the main poles of exploitation from the solar energy in the world considering the country's specific climatic situation and that sun shines in the sky of this territory almost in most days of year, Simple technology and the air's and bio-environment's lack of pollution and, most important, reservation of the fossil fuels for next generations or their conversion into valuable materials and artifacts using the petrochemical technique are from amongst the reasons which reveal the necessity of usage of the solar energy for Iran. Of total energy disseminated by sun, it's 47% reaches the level of earth an irradiation about 60 millions (Btu) per hour; that is, energy resulted from three days of the sun's irradiation into earth is equal to total energy arisen from combustion of total fossil fuels in the heart of earth and, therefore, it can be reserved as a result of radiation of sun for forty days. Therefore, this source of the endless, clean and free energy can be used up to an extent by employment of the solar collectors and consumption of the fossil fuels is to be economized very highly. Thus, sun, as a useful source and supplier of energy, is employed in most parts of world and Iran possesses a great potential in order to use the solar energy as well. The energy received from sun by the earth has been estimated at rate of 1000 times higher than rate of energy produced from burning of all fossil fuels in the same years. Even though cost of usage of the solar systems is not considered in the policy-makings today, but profits and advantages resulted from their application, including reduction of pollution of the bio-environment are considered as well.

Geothermal energy

This energy is of noticeable resources. It has been estimated that the heating energy being equal to 100 PWh can be directed from inside of the earth to surface of earth within a year. Sabalan's exploratory deep excavations in Iran in order to use the geothermal energy have been carried out for the first time in the Middle east.

Existence of appropriate potential in the region being adaptable to bio-environment, security, reliability trustablility and cost-effectiveness are the key reasons to develop the geothermal energy in the region [6].

Experiences of other countries in consumption of the new energies

Of the wind energy in the world has been reported 30% approximately which is of the maximum rate of growth among other sources of energy in the world. Today, total capacity of the wind electricity in the world reaches 430 terawatt annually [7].

At present, Europe produces more than 70% of the world's wind electricity and, almost, two third of the increased capacities of production in 2001 allocates to the European countries. At present, the wind farms in the U.S.A produce electricity about 10 milliards kilowatt/hour annually which this rate of wind energy can prevent from dissemination of 7.5 million tons of the carbon dioxide annually from viewpoint of the bio-environmental considerations and fighting with production of the greenhouse gases.

In spite of benefiting from the rich and plentiful reservoirs and sources of coal, Germany has founded it's own energy policy on the basis of the clean energies, sustainable sources and security in supplying of the energy. Recently, Germany broke the monthly record of accessing of the solar renewable energy, while there are a lot of developed countries which are of higher sun light compared to Germany. This country has been able to get access to 5 terawatt/ hour of the solar energy in July which has increased up to 42 percents compared to previous year. This record puts emphasis once again on that shortage of sun light doesn't prohibit from raising of capacity for production of the solar energy, and if a country with such a sun has been able to gain access to this record, there will not be existed any limitation to produce solar energy for countries like Iran through such a vastness and sun. Especially, Iran has put the hottest desert of the world into it's heart. With 400 megawatts in lieu of each one million human beings at the end of 2012, Germany was identified as the pioneer country in the world from viewpoint of capacity for production of solar energy. Also, Germany is number-one country in the installation of the photovoltaic panel. The biggest solar roof top the Europe with capacity of 8.1 megawatt was completed in Frankfort recently. The most interesting point is that most part of this capacity for production of the solar energy in the Germany is due to the solar panels installed on the roof tops of houses and buildings.

In addition, noticeable increase of installation of the solar panels has led to decrease of price of launching and equipments of solar energy in this country so that it's price is almost half of price of exploitation and production of the solar energy in the U.S.A. One of the reasons for these successes regarding the renewable energies can be considered as decreasing of the electricity's whole saling price in Germany due to usage of this sort of energies. One-fourth of the U.S. electricity is supplied from the renewable resources. The energy produced in the first half of 2013 in the U.S.A. overtook the energy produced by coal, oil and nuclear energy.

On the basis of the last report of U.S. commission for regulation of the energy regulations from substructures of this country, sources of renewable energy such as bio-mass, geothermal, solar, water and wind energies have allocated themselves 24.93 percent of total new capacity of the electricity production installed in the first six months of 2013 which, totally, this capacity is equal to 2144 megawatts and this rate is higher than the rate supplied in the current year from the sources of coal (1570 megawatts-18.365), oil (6megawatts-0.30%) and nuclear energy.

Nevertheless, natural gas with share of 4852 megawatts from new capacity of electricity production (56.41%) is pioneering in the first half of 2013. Out of renewable energy sources in the first half of 2013, solar energy with 94 new power plants and with collection of 979 megawatts has been pioneering and, following that, wind energy with 8 power plants and, totally, 959 megawatts is follower.

On the basis of the most recent statistics of Chinese society of wind energy, this country was turned into the biggest country activating in the field of usage of wind in order to produce electricity in the world in 2011 both from viewpoint of production and capacity to produce wind electricity in China reached 62.4 Gigawatts. Formerly, U.S.A with possession of capacity of 469 gigawatts was counted as the biggest producer of the wind electricity in the world which, at present, America has granted this caption to China.

Economical profits of improvement of technologies of new energies

Among a variety of the renewable energies, wind energy has the less initial investment cost. By improvement of technology, increase of turbines and elimination of the limitations, noticeable decrease in this cost is to be imagined. At present, electricity produced from fossil fuels is cheaper than the electricity produced from wind turbines. Cost of the exploitation from the wind energy at the approximate rate of 85% shows a reducing process within past 20 years. Usage of new energies can be cost-effective, but, apart from this advantage, energies of this type have a series of defects some of which are referred here. From viewpoint of the solar general applications, most parts of country have this capability, but the solar heating power plants in the megawatt size in the central regions, including the Fars, Kerman and Yazd are part of the regions with high capability and power.

Minimum irradiation of the solar energy occurs in the North of Iran which is higher than the maximum irradiation in Germany. On the basis of a study carried out by the DLR researching center of Germany (DLR-Docklands light railway) for Ira, it has been estimated that capability of installation of almost 60000megawatt of the solar heating power plants exists in 2000km of Iran's arena.

Therefore, selection of the regions which have higher irradiation intensity is followed by increase of production and noticeable decrease of costs of solar electricity. Solar energy which has a special position out of the new and renewable energies is of some disadvantages as well as part from a series of advantages [8].

It's advantages, for example, can be referred to as following cases:
1. After initial investment, the energy received from sun is free completely.
2. It is not dependent on supply and demand of the fuel in the market.
3. In the consumption place, it is produced; thus, the transfer systems are not required.
4. Adaptability with bio-environment.
5. Simple and long-lasting consumptions.

Some of it's disadvantages are as follows:
1. Initial expense and high cost price of installation of panels and photolytic systems are one of the obstacles which decreases the motivation for this task up to an extent.
2. Production of the solar energy is possible only in the day time.
3. In order to supply the electricity require by the big apparatuses/ systems, installation of a lot of the solar plates is required which is not cost-effective due to it's high expense and doesn't have the economic justification.

The challenges in front of the renewable energies in the country

In application of the new energies, Iran faces with plentiful complexities and challenges. Peoples' and responsible individuals' lack of enough identification of the vital problem of energy, lack of correct recognition of the sources of renewable energy and it's advantages and, also, inexistence of the economical justification can be considered as one of the most important obstacles to gain access to the new energies. On one hand, existence of high fossil resources in the country can be regarded as one of the reasons for lack of development of new energies in the country because this thought is to be created that one country, through possession of these plentiful resources, is no more required to use the new energies which have high initial investment cost. Therefore, culture-making in order to familiarize the people with subject of the new energies, planning and adoption of the supportive policies on the behalf of government regarding execution of plans related to it can influence on the improvement of the current conditions noticeably [9].

Reminding of this point is very significant that usage of the renewable energies compared to the fossil fuels, even though it is of very low exploitation cost, it will have very higher investment costs and, even, many fold costs [10]. For example, investment cost of the wind turbines is, at least, 3 times as much as that of the gas turbines, investment costs of the solar heating power plants is higher than 8 times as much as that of the gas turbines and investment costs of the photolytic systems is, almost, 10 times as much as that of the gas turbines. In fact, these same obstacles have caused that share of the new energies is to be predicted less than 2% at present and, almost, 4% of total consuming energy of the world in 2020.

In short, obstacles of the renewable power plants in the competitive market can be expressed as follows:
1. High cost of production of electrical energy compared to fossil fuels.
2. Lack of existence of continuity in production.
3. Low capacity of a lot of these power plants.

Technology of sterling dish

Although technology of solar dish is appropriate both for electricity production in the power plant scale and for electricity production in the power plants scale and for smaller units, but lack of performance of enough investment and slow rate of growth in this technology has caused that this kind of production of heating-solar electricity lags behind two other heating-solar technologies [11].

Yet, these conditions can be changed by regulation of the proper incentives. For example, due to available incentives in California, a corporation known as Engine system sterling has signed the contracts to construct two big units of energy production through.

Analysis of party of demand

After lengthy years of stagnation, market of heating-solar electricity (CSP) with increase of 740 megawatts of capacity win thin 2007 until end of 2010 was gone out of stagnation. More than a half of this capacity (Almost 478 megawatts) was launched within 2010 and the world's total capacity in this technology reached 7.095 megawatts [12].

As a result of a rule considered a high extra payment for solar energy, the Spanish companies focused on the development of heating-solar technology, and a noticeable capacity of this kind of power plant was launched in 2009. In 2010, this country added other 400 megawatts to it's own capacity and has been converted into the biggest country in this domain of energy around the world by total of 632 megawatts of capacity (Activating). Also, U.S.A terminated the year of 2010 with total capacity of 509 megawatts. In the beginning of 2011, this country started to construct a parabolic-linear power plant and solar tower power plants with total capacity of 5.1 and signed the contracts too in order to create, at least, 2.6 gigawatt of the new capacity in this domain. Of course, it must be referred that most of usage of the governmental lands and governmental rules and orders in domain of the new and renewable energies [13].

Interest in this technology is not limited to the mentioned countries and has been taken into consideration in the north of Africa and Middle East, and at present, at least 2.1 gigawatt of capacity is constructing aiming at reaching 2 gigawatt of solar electricity, including manufacturing units in U.A.E, Algeria, Egypt, Jordan, Tunisia and Morocco and other countries, including India, China, Australia, Mexico and Italy consider the new projects in the megawatt scale for future. Thus, totally, project of construction of the heating-solar power plant is active (especially in U.S.A and Spain) almost at rate of 6.2 gigawatt at the end of 2010 and it is expected that all of these projects are to be exploited until 2014.

Therefore, with regard to the stated cases, we see that request for new and renewable energies considering the profits they have and, also, in addition to a series of problems high expense and cost price and lack of supportive policy are the most important among the problems is increasing whose concentration is on the countries such as U.S.A and Spain and has been taken into consideration by many countries.

Analysis of party of supply

On the basis of the expressed matters, it can be realized that the heating- solar power plants are defined, designed and manufactured in the mould of power plant projects and there is not a commodity market for their parts. In 2010, noticeable changes and transformations were occurred in the section of the heating- solar electricity [14]. Although concentration on this technology has been in the Spanish and U.S. markets similarly, approach to this technology was seen in other parts of the world as well.

The solar focusing systems in the production of safer electricity and have more capability to produce and distribute electricity for electricity network using the united heating reservation which discriminates these power plants from photolytic systems and make them attractive.

Experimental studies

In 2012, Seyyed Alireza Ghadimi et al, dealt with studying of a variety of new energies in Iran and results of their study show that some parts of Iran are susceptible to development of renewable energies which their undeniable advantages regarding improvement of bio-environment can be assisted by more accurate identification of them as well as exploitation from them. In 2005, Pouneh Saeidi dealt with studying of the photolytic and source of the clean energy. Results of their survey indicate that an attempt to propagate the employment of these systems, while decreasing the complicities resulted from development of the network and carrying the fuel to the far regions, can be an approach for reduction of consumption of fossil fuels and affects on the decrease of diffusion of the green gases noticeably.

For example, Algeria, Morocco, Egypt, Australia and, even, China were from amongst the countries resorted to this technology [15]. The German Scott Corporation, also, doubled production of recipient pipes in last year, and the Spanish Rio Glass company, which has been turned into a well-known producer in this field, is constructing it's own factory in the U.S.A and has a lot of plans in order to launch a factory in China and in India.

Therefore, considering the mentioned subjects, markets of the solar focusing systems, after many years, have been encountered with removement toward these systems in 2011. The projects which are about execution in the U.S.A and Spain have led to stimulation of market for these systems and, thus, increase of attention of investors to this domain in the world. Also, on one hand, players which are active in the market related to these domains have been yet faced with the challenges compared to other renewable systems, particularly the photolytic systems have been encountered with priced decrease in recent years, and they are more adaptable than in 2009, Fariba Foruzesh has dealt with survey of possibility of using the new energies in form of dispersed production and results of her study show that one of the most important approaches of optimization of energy carried out in all industrial countries is usage of the simultaneous dispersed production of electricity, heat and renewable energies. In 2009, Davood Niknezhad has dealt with studying of the clean energies with putting emphasis on the new technologies. Results of his study show that the clean energies in combination with novel technologies such as nanotechnology will be benefited from a high quality and output.

Summing up and conclusion

Predictions show that, in case of execution of the bio-environmental commitments which the world's countries oblige themselves to it, including reduction of subside for fossil fuels and policy making to reduce the future green houses, world's energy will have a more stable condition towards the preserve of status quo, and role of the new economies (China and India) in increase of demand for energy or decrease of intensity of consumption is vital leads to noticeable changes in the world's energy structure. On one hand, investment for procurement of the world's demand can not be forbore for the players of energy part. Requirement for this investment, on the supposition of increase of capital-involving technologies, becomes higher as well.

Although Iran is the only country in the Middle East which uses the new and renewable energies in a noticeable scale, it appears that these activities are not of a high priority, always locate in the margin and there is not an accurate and compiled planning for their development. The conducted researches show that, at present, construction of independent solar power plants is not economical, but the combined cyclic power plants like the solar-gaseous power plants or solar-steam power plants will be very cost-effective.

But, only cost of solar systems is not considered in the policy makings today, but profits and advantages resulted from their application, including decrease of pollution of bio-environment is considered as well.
In spite of all problems propounded, regions from the country can be found in which usage of solar energy has economical justification. For example, usage of solar cells in the remote regions can be reached the update price within a few years. With regard to the available technologies and expansion/ vastness of usage of solar energy in the world, it seems that this energy can compete with the prevalent and common energies in market in the part of making the building warm to hot the required water of these buildings.

But, in order to obviate complexities which prohibit from mass production of this energy and development of the renewable power plants in the market, following approaches are
Suggested:
1. Reduction of percentage of tax.
2. Culture-making in order to familiarize the people with important category of energy, planning and adoption of the supportive policies on the behalf of government regarding execution of related plans.
3. Support of producers through purchase of not-predicted production.
4. Encouragement of subscribers to pay an amount in order to develop these power plants.
5. Breakage of big power plants into smaller units.
6. Investment in the renewable energies outside of the whole-selling market of electricity.
7. Establishment of separate electricity market. Thus, these supports lead to increase of production lines of this energy in the country. A big industry is to be firmed in the country by this task and, subsequently, employment is created for many groups.

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