DOWNLOAD PDF RESEARCH PAPER ON ENERGY CRISIS IN PAKISTAN

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Energy Crisis in Pakistan: A Threat to National Security 74 ISSRA Papers It is not a scientific study of economic factors and statistical data has been analyzed in terms of its political and economic.

The Ministry of Water and Power has developed a power policy to support the current and future energy needs of the country, as defined in the Economic Survey of Pakistan, To achieve the long-term vision of the power sector and overcome its challenges, the government has set nine goals. Create a culture of energy conservation and responsibility. Ensure the generation of inexpensive and affordable electricity for domestic, commercial, and industrial use by using indigenous resources such as coal Thar coal and hydropower. Minimize pilferage and adulteration in fuel supply. Promote world class efficiency in power generation. Create a cutting edge transmission network. Minimize inefficiencies in the distribution system. Minimize financial losses across the system. Align the ministries involved in the energy sector and improve the governance of all related federal and provincial departments as well as regulators. The ministry has also set a few targets. The ministry is aggressively pursuing its policy of energy conservation and responsibility. The Power Players The current power structure is quite complex. NTDC reports to Pepco. For the first 12 years, Pakistan generated electricity through both thermal and hydropower means with thermal dominating the system. There was a mixed pattern for the next 15 years with the construction of indigenous dams. There was a sudden increase in thermal power generation in the year but the next 10 years were again dominated by hydropower generation. However, from to date, a total of 26 years, Pakistan has again generated more power through thermal means based on imported fuels. A similar oscillating pattern emerges if the line losses data is analyzed. The line losses were at A look at the figures of the year reveals that hydropower was MW 69 percent , thermal was MW 31 percent , and line losses were Total power generation was at MW, MW from thermal 55 percent , MW from hydropower 45 percent , and the line losses were at For the year , the total power generation was 1, MW, thermal was MW 50 percent , and hydropower was MW 50 percent , and the line losses were In , the total power generation was 1, MW, out of which MW 54 percent was hydropower and MW 46 percent was thermal, the line losses were at In , power generation reached 1, MW, out of which MW 50 percent was hydropower, MW 50 percent thermal, and the line losses were Hydropower remained stagnant at MW 45 percent , thermal raised to 1, MW 55 percent and the line losses were at 34 percent. In , the total power generation was 2, MW, out of which hydropower was 1, MW 59 percent , thermal was stagnant at 1, MW 41 percent , and the line losses were at This pattern continued for another 10 years. For example, in the year , the total power generation was 2, MW, of which 1, MW 58 percent was hydropower, 1, MW 42 percent was thermal, and the line losses were The same pattern continued till the year , hydropower was stagnant at 2, MW 52 percent , thermal increased to 2, MW 48 percent , and the line losses were In the year , total power generation increased by MW reaching 5, MW, out of which hydropower was 2, MW 49 percent , thermal was 3, MW 51 percent , and the line losses were at However, hydropower generation began to reduce its share in total power generation which was decreased to 49 percent in and 31 percent by the year In the year , the total power generation increased to 18, MW, hydropower Wapda remained unchanged at 6, MW 34 percent , thermal Gencos were 4, MW 26 percent , hydropower private increased to MW 0. Breaking this down further, public sector contributes 31 percent from hydropower, 25 percent from Gencos, 3 percent from nuclear while private sector IPPs contribute 40 percent from thermal, 0. If we analyze the government figures for the period of to , Pakistan plans to add 10, MW to the system via liquefied natural gas LNG , coal fire, wind, solar and hydropower projects. The current installed capacity is 22, MW based on February figures , out of which 7, is based on hydropower generation and 15, on thermal generation. The additional 10, MW should take Pakistan up to 32, MW installed capacity by the end of year This should effectively end load-shedding if all goes according to the plan. The new energy mix would get 52 percent from renewable solar, wind and hydropower , and 48 percent from thermal LNG, coal and nuclear by the year Yes, this would be totally sustainable. The installed capacity would be in surplus, however, the energy per unit will not be cheap. Currently, the consumers are paying between PKR 12 to 18 on an average. Would the cost be about the same or higher? This

is the million dollar question that has all the put energy pundits in a frenzy. Alternate Energy Wind The Pakistan Metrological Department PMD has identified a wind corridor in Sindh covering an area of about 9, square kilometers with gross wind power potential of 43, MW and keeping in view the area utilization constraints; the exploitable electric power generation potential of this area is estimated to be about 11, MW. In pursuance of rural electrification program of the federal government the major objective of the MHP program has therefore been rural electrification of the areas which are away from the national grid, and where restoration of ecological balance along with protection of environment is imperative. The council has so far successfully installed decentralized MHP plants with consolidated installed power generation capacity of 8 MW. Whereas plants have been installed in collaboration with various government organizations, Non-Government Organizations, Volunteer-Based Organizations providing technical assistance and post-installation supervision. Solar The government of Pakistan has set a target of having at least 5 percent of the total power generation of the country 9, MW through alternative energy by that would have a decent share coming from solar power. Availability of sunny days is one of the major parameters that need to be looked at before implementing solar energy projects. The data indicates that in most parts of the country, availability of sunny days is between â€" days in a year. The targeted sites of the project have around sunny days in a year. This renders better prospects for the technology implementation for rural electrification, economical equipment, design and better operation. Pakistan lies on Sun-belt. The mean global irradiation falling on horizontal surface is about to watt per m2 per day. About 1, to 3, sunshine hours and 1. Balochistan province is particularly rich in solar energy. Keeping in view the fact that the benefits of solar energy for power generation can be attained in the areas where abundant barren land is available and no other development activities like agriculture, livestock, industry, etc. Such areas include the following: According to a report of the International Renewable Energy Agency IREA , there is a growing evidence in many countries that high levels of renewable energy penetration in the grid is technically and economically feasible, particularly as solar and wind technologies increasingly reach grid parity in economic terms. Existing grid systems already incorporate elements of smart functionality, but this is mostly used to balance supply and demand. Smart grids incorporate information and communications technology in every aspect of electricity generation, delivery and consumption in order to minimize environmental impact, enhance markets, improve reliability and service and reduce costs and improve efficiency. These technologies can be implemented at every level, from generation technologies to consumer appliances. As a result, smart grids can play a crucial role in the transition to a sustainable energy future in several ways: Smart grid technologies are divided roughly into three groups: Some smart grid components, notably distribution automation and demand response, are well-established technologies that directly enable renewables and are usually cost-effective, even without taking into consideration the undeniable benefits of sustainability related to renewable energy integration. Smart inverters and renewable forecasting technologies are already used to increase the efficiency and productivity of renewable power generation, yet tend to entail additional costs. These devices start to help noticeably when capacity penetration for renewables reaches 15 percent or more on any section of the grid and become essential as this capacity penetration approaches 30 percent, although there is little downside to choosing smart inverters even at low penetration levels. Most utilities focus on other technologies first, except in special circumstances such as with grant funding, high reliability requirements, or remote locations. This shows that a range of enhanced smart grid technologies is already available to improve grid performance and enable higher penetration levels of renewable energy. Furthermore, the use of smart grids is cost-effective when installing new grids or upgrading old ones. Applications of smart grid technologies can be found across the world, from isolated islands to very large integrated systems. For developed countries, smart grid technologies can be used to upgrade, modernize or extend old grid systems, while at the same time providing opportunities for new, innovative solutions to be implemented. For developing and emerging countries, smart grid technologies are essential to avoid lock-in of outdated energy infrastructure, to attract new investment streams, and create efficient and flexible grid systems that are able to accommodate rising electricity demand and a range of different power sources. Smart grid technologies are already making significant contributions to electricity grid operation in several countries. Case studies from Denmark, Jamaica, the Netherlands, Singapore, and the

United States New Mexico and Puerto Rico highlight the successful combinations of smart grid technologies with renewable energy integration. Yet, as these case studies also show, the successful implementation of smart grid technologies for renewables requires changes in policy and regulatory frameworks to address non-technical issues, particularly with regards to the distribution of benefits and costs across suppliers, consumers and grid operators. With renewable power shares sure to continue increasing, smart grid technologies in combination with appropriate supporting policies and regulations will be essential to transform the electricity system and create the grid infrastructure to support a sustainable energy future. Conservation The first national energy conservation policy was developed and approved by the government of Pakistan in The policy provided a broad guideline to promote conservation in all sectors of economy. The national energy conservation center Enercon was established in The strategy adopted by Enercon for promoting energy conservation spans a whole spectrum of activities, starting from identification of energy conservation opportunities and including technology demonstration, to undertaking pilot projects, information and outreach, training and education, and development of plans and policies for promoting energy efficiency. If length is increased to km, the load is reduced to 1, MW. Further increase in length to km, load would be reduced to 1, MW. Now to maximize the utilization of the transmission lines, power houses and grid stations, distribution network needs to expand and improve which will enhance the capability of the existing transmission network. Mentioning the example of Lesco, he says that for the first time this summer, company distribution network handled 4, MW load as the network was improved by encircling it with a distribution ring which enables it to handle more load. Consequently, power outages duration has been reduced this summer on the Lesco system. Bazmi says that the system modification is a continuous process and it cannot be stopped at any point of time otherwise system will collapse. On the other hand, in Pakistan, such decisions get delayed which causes system failure. The maximum load is concentrated in the middle of the country where local generation potential is limited because of lack of fossil fuel resources and mega hydropower potential in the plains. Hydropower generation potential is located in the north and thermal power generation sources are mainly in the south. The lightly loaded HVAC lines generate excessive VARs due to their high charging current and would require sufficient amount of shunt reactors, line connected or bus connected depending on the requirement. Therefore very careful levels of compensations, inductive and capacitive, are to be studied and planned. Based on their findings, the NTDC technical losses are 2. On the basis of the finding, it has been established that technical losses are always not more than 7 to 8 percent for the Discos and 3 percent for the NTDC. Therefore, Nepra can ask the Discos to bring down their line technical losses and separate theft with it. He believes that the technical losses of any distribution and transmission network are always in single digit while more than that is electricity theft. Remaining, 10 percent is technical losses, which in accordance with the total power sector infrastructure size of Pakistan is negligible. Globally, every power system has technical losses which depends upon infrastructure base of the system.

Chapter 2 : Energy Crisis in Pakistan - CSS Forums

In this Research Paper the purpose of study was able to know Reasons of Increasing Electricity rates and also energy crisis in Pakistan and define Recommendations &Solutions of this problem. Electricity rates keeps on increasing in Pakistan all the time.

Energy Crisis in Pakistan Term Paper: Energy crisis is the urgent problem all over the world, because the resources people use for their needs will be exhausted very soon. Generally, energy crisis is associated with the lack of oil and gas, because these resources are used for the production of energy. The majority of the countries realize the consequences of the energy crisis, so they try to develop the alternative sources of energy to avoid the energy collapse. The alternative renewable sources of energy not only solve the problem of energy supply but reduce the impact of pollution, because for example, wind and solar energy do not contaminate air, water or soil. Pakistan suffers from energy crisis as well, and there are many reasons predetermining this fact. First of all, the energy policy of the country is not reasonable and it causes problems. Instead of usage coal for the production of energy, which is located in Pakistan in enormous quantities, the country uses expensive oil and gas. It is obvious that one should safe oil and gas for more important purposes than wasting it on energy the majority of the countries of the world use only a few percents of oil for the production of energy and use cheaper resources like coal. Then, Pakistan is a developing country, so there are the problems with equipment and machinery which prevents the waste of energy during its production. Next, the country does not use the renewable energy which is cheaper and safer wasting much money on the expensive oil, although there is a potential for the development of wind and water energy. Naturally, the energy crisis of Pakistan is the result of the careless policy of the government which can not or does not want to manage the resources available for the country reasonably. In order to complete a well-organized energy crisis in Pakistan term paper a student should spend much time to research the topic well. One will need to analyze the problem from all sides and from the point of view of various spheres. It is important to analyse the energy policy of Pakistan and find out what is done wrongly and how the situation can be improved. A student should suggest some effective methods and solutions to the crisis to demonstrate knowledge and professional skills. He best way to prepare a good term paper is to take advantage of the Internet and the assistance of the experienced writers. A free example term paper on energy crisis in Pakistan is quite a useful piece of advice for inexperienced students, because with their help they learn about the ways of successful paper writing. Every free sample term paper on energy crisis in Pakistan is useful enough to learn about the methods of analysis. Formatting and composition of the correct structure. Your academic paper will be written from scratch. We hire top-rated Ph. Each customer will get a non-plagiarized term paper with timely delivery. Just visit our website and fill in the order form with all paper details: Enjoy our professional term paper writing service!

Chapter 3 : Energy Crisis in Pakistan Essays

Introduction of Energy Crisis in Pakistan: Energy resources are the backbone of social economic development of any country. It is essential for the production and making of goods and other things like cotton sheets which contributes a lot of revenue in the budget of Pakistan.

Resultantly, over the years, the gap between energy demand and supply drastically grew and now against demand of MW, we are having around MW. Imbalanced energy energy mix Energy mix in Pakistan is quite imbalance in comparison to other countries, with greater reliance on non-renewable resources of gas A rational energy mix planning ought to be developed giving greater dependency to renewable hydel power , indigenous coal and alternative energy resources wind and solar energy. Nuclear energy can Non-utilization of enormous indigenous energy resources: Consequences of Energy Crisis: Energy is pivotal for running all other resources and crisis of energy directly influences all other sectors of the economy. The economic progress is hampered by decline in agricultural productivity as well as by halting in operations of industries. One important factor of lower GDP and inflation of commodity prices in recent years is attributed to shortfalls in energy supply. Agricultural productivity of Pakistan is decreasing due to provision of energy for running tube wells, agricultural machinery and production of fertilizers and pesticides. Thus higher energy means higher agricultural productivity. Nearly all Industrial units are run with the energy and breakage in energy supply is having dire consequences on industrial growth. As a result of decline in energy supply, industrial units are not only being opened, but also the existing industrial units are gradually closing. By closure of industrial units and less agricultural productivity, new employment opportunities ceased to exist and already employed manpower is shredded by the employers to increase their profit ratios. Thus energy crisis contributes towards unemployment. This factor is primarily related to the domestic usage of energy cooking, heating and water provision. Load shedding cause unrest and frustration amongst the people and results in agitation against the government. Declination in economic growth, lower agricultural productivity, unemployment and shackling industrial growth result in increasing poverty. Currently, around forty percent of our population is living beyond poverty line and this ratio is increasing day by day. Ample control of energy crisis will surely yield in curbing the menace of poverty. Nonetheless, menace of energy crisis can be overwhelmed by government through making effective policies and its proactive implementation. Simultaneously, it is the responsibility of us, the people of Pakistan, to utilize the available energy astutely and wisely to play our due role for progress of the country. Energy crisis can be curtailed by: Reducing unnecessary energy use: Developing new energy resources:

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Chapter 4 : Research paper on energy crisis in pakistan pdf - Cspwizard

Solutions for Energy Crisis in Pakistan iii ACKNOWLEDGEMENTS This volume is based on papers presented at the two-day national conference on the topical and vital theme of Solutions for Energy Crisis in Pakistan held on.

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Energy Crisis in Pakistan Term Paper: Energy crisis is the urgent problem all over the world, because the resources people use for their needs will be exhausted very soon.. Generally, energy crisis is associated with the lack of oil and gas, because these resources are used for the production of ene.

A careful read of the book reveals that while there may be a way or more out of this mess, there are, however, no shortcuts. Given the challenges and structural constraints, Pakistanis may have to live with the energy shortfall for decades, if not more. Still, given the paucity of research on the same in Pakistan, Wilson Center and Michael Kugelman must be commended for this timely publication. The reason is simple: At its worst, the shortfall could be as high as 8, MW. The installed electricity generation capacity is around 22, MW. It surprises me a great deal that energy experts in Pakistan define the shortfall as the difference between the installed generation capacity and the actual production. This approach erroneously assumes that the installed capacity is sufficient to meet the total electricity demand in Pakistan. Given that a large segment of the population is not even connected to the grid, their power needs are not being accounted for in the stated shortfall. Furthermore, it is again erroneous to assume that those fortunate ones connected to the grid will not consume more power latent demand if it were available in addition to the installed capacity. One wonders why Pakistan cannot generate sufficient electricity to meet the demand. The answer to this simple question is rather complex. First is the affordability challenge. Thanks to poor planning and governance, Pakistan generates very expensive electricity. The cost per unit kilowatt-hour kWh of generated electricity in Pakistan is around 14 cents 14 Rupees. Consumers, on average, pay The systematic subsidy, which is almost 15 per cent of the cost, adds up to billions in losses. But this is not all. There are distribution and transmission losses, which in Pakistan is a polite expression for theft. Across the country, 22 per cent of the generated electricity is lost due to theft and some transmission losses. Collection is another challenge, where the distribution companies fail to collect outstanding dues from consumers. The recovery rate ranges between 80 per cent to 90 per cent. Let us assume that Pakistan generates units of electricity. The system loses 22 units to theft. Thus, only 78 units reach consumers. We further assume that the distribution companies collect approximately 85 per cent of the amounts billed to consumers. The system, therefore, recovers revenue for only 66 units of the generated. Since it costs 14 cents to generate a unit of electricity, and the average tariff charged is Effectively, the total loss from transmission losses, theft, recovery, and subsidies is 46 per cent. This leads us to the other self-inflicted financial wound, i. Each year, it adds up to billions of dollars. Why, you may ask. Some energy experts may argue that the circular debt is not that large. They may be right. The amount of circular debt will be lower if less power is generated, losses due to theft are lower, and the recovery rate is higher. This stops oil shipments to independent power producers, who halt the production, but continue to receive payments from the State for the installed capacity rather than for generated electricity. We are told that the subsidies are required to protect the poor. This is partially true. The complete truth is that the subsidies protect the profit margins of the very rich involved in generating power at such expensive rates. Even in the South Asian neighbourhood, Pakistan generates one of the most expensive electricity at 14 cents per unit. The high cost is a result of using petroleum or its derivatives for power generation. Generating electricity with coal or gas is much cheaper. The real question to ask is why Pakistani planners recommended oil-based power plants to independent power producers, and at the same time committed to providing cheaper oil and buying electricity at higher tariffs. I admire their optimism. However, in earlier writings for the Dawn , I had shown that when it comes to Thar, we may be counting our chickens before they hatched. The rest of the reserves billion tonnes fall under hypothetical undiscovered , inferred, and indicated category. Other experts believe that despite there being a shortfall in Pakistan of two billion cubic feet, natural gas offers the potential to generate electricity at affordable costs. Also, almost 11 per cent of natural gas remains unaccounted for in Pakistan. The recent agreement between Iran and Western powers opens the possibility to build a gas pipeline to Iran and link it with India and China. Cheaper gas may mean affordable electricity for Pakistan. Source of fuel used in power generation. Is there any way out?. Woodrow Wilson International Center for Scholars. The Wilson Center

publication offers advice on how to address the energy crisis in Pakistan. The book highlights the need for better governance of the power sector and the need to eliminate redundancy in regulatory authorities. Improving governance in Pakistan is easier said than done. The challenge is a lack of qualified personnel to regulate these complex entities. Individuals with training in energy economics and infrastructure engineering are few, and even fewer in the public sector. Without the desired human capital and presence of political will, it is unlikely that governance will improve in the short-run. Unlike India and China, Pakistan generates very little power from coal. The call to shift to coal and gas makes sense. The book, however, does not mention nuclear as an option. Belgium, France, Lithuania, and Slovakia, generate more than 50 per cent of their electricity from nuclear. Some may argue that nuclear is not the cheapest alternative. Still, not having any mention of nuclear in the book seemed odd to me, especially when Pakistan already generates a fraction of its electricity from nuclear. Experts strongly recommended the need to limit losses during transmission, distribution, and because of theft. The switch to smart, temper-proof metres being installed in Islamabad and Peshawar is a welcome development. MicroTech , a Pakistani firm specialising in smart metres, is providing the technology to limit theft in the system. At the same time, assistance from the US AID for smart metres to monitor the national grid covering 9, feeders is a timely development to modernise the command and control structure. A recent report by the regulator , NEPRA, revealed that K-Electric, despite its tall claims of adding thousands more megawatts to its generation capacity, is limited to carrying no more than 2, MW. Even when K-Electric has been privatised, its establishment can still not rationalise its workforce without intervention from the State. The lack of law and order in Pakistan implies that any attempt to lay off surplus workers will likely meet a hostile reaction, thus allowing the State to step in and pull rank. Violence also ensues when tariffs are raised for electricity, natural gas, or gasoline. The authors urge the government to raise tariffs for natural gas to the wholesale levels in the UK, i. The motivation behind the call to raise tariffs is to curb the excessive consumption of natural gas in Pakistan, which results from the inherent subsidy that keeps prices low. Doubling tariffs will likely have political repercussions. It is hard to imagine any incumbent government anywhere surviving such drastic increases in the price of utilities. There are, however, no shortcuts to an electrified future of Pakistan. The authors mention the MW solar power plant near Bahawalpur and the Gadani MW project as examples of new capacity being added to the system. Large power plants will take anywhere between 5 to 10 years to come online. Improving governance and curbing theft should not take that long.

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Chapter 6 : ENERGY CRISIS IN PAKISTAN - Bohat ALA

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Chapter 7 : Term Paper on Energy Crisis in Pakistan | calendrierdelascience.com

Energy crisis is an enormous problem fore every industry of the country and creates a negative impact on the economy of the country. The effect causes a bad impact on mostly on every business. That affects the business as well as on social life of every person of the country.

Electricity,gas,water,fuel is essential part of our daily life and its outage has severely affected the economy and overall living of ours. Thousands have lost their jobs, businesses; our daily life has become miserable. Pakistan is currently facing up to 18 hours of electricity outage a day, is expected to face more if not dealt with in time. The purpose of this study is to analyze the nature of this crisis and to propose some short-term as well as long-term solutions to this problem. This study is exploratory in nature. We have done our best to conclude and sketch up some recommendations in the light of identified hurdles in the way of implementing the appropriate solution to our problem. Our study finds some major wholes in our system if they are covered up we can not only overcome the deficiency of electricity in our systems but also we can be able to export it to our neighboring countries. The basic flaws that our study identified are related to circular debt, and the inadequate capacity of our electricity production and distribution systems. Also we emphasized on some prospective alternatives to our electricity production that are cheaper and they provide more clean electric energy as compared to fossil fuel run energy plants. Pakistan has been facing an unprecedented energy crisis since the last few years. The problem becomes more severe during summers. However, this winter was no different. During the peak crisis there was a power outage of hours everyday. Those without generators and UPS faced tremendous problems. The prices of both continued to increase due to a sharp increase in their demand. Its surprising that such a senior and experienced person took so long to find this out. This was one of the many promises he failed to keep. Even after that very few power plants have been set up to meet the demand for electricity. During the second government of Benazir some independent power plants were set up. Had they not been setup then we would have had a much bigger crisis with life almost coming to a standstill. I come from the software industry which has been badly hit by the present power crisis. On an average the generator at my office is on for three hours. The policy makers of Pakistan have so far failed to understand one thing. They do talk about making dams and setting up nuclear power plants but why do they not understand the importance and benefits of alternate energy sources such as solar, windmill energy etc. They are cheap and quick methods for producing electricity. Pakistan is a very blessed country because solar energy is available in most cities all year round similarly wind energy is readily available in the coastal areas. These energy sources if tapped can be of great help in reducing the current demand supply gap. In a report it is claimed that Pakistan has faced to MW shortage of power. And it will likely face MW next year. And is lacking behind the needs of natural gas at about 27 million ton of energy in current year and this ratio will rise in upcoming years. Energy Crisis In Pakistan An energy crisis is any great shortfall or price rise in the supply of energy resources to an economy. It usually refers to the shortage of oil and additionally to electricity or other natural resources. The crisis often has effects on the rest of the economy, with many recessions being caused by an energy crisis in some form. In particular, the production costs of electricity rise, which raises manufacturing costs. For the consumer, the price of gasoline petrol and diesel for cars and other vehicles rises, leading to reduced consumer confidence and spending, higher transportation costs and general price rising. Energy resources have depleted! Whatever resources are available are simply too expensive to buy or already acquired by countries which had planned and acted long time ago. Delayed efforts in the exploration sector have not been able to find sufficient amounts of energy resources. Nations of the world which have their own reserves are not supplying energy resources anymore; only the old contracts made decades ago are active. Airplanes, trains, cars, motorbikes, buses and trucks, all modes of transportation are coming to a stand still. Many industries have closed due to insufficient power supply. Price of oil has gone above the ceiling. At domestic level, alternate methods like solar, bio-gas and other methods are being tried for mere survival. The above is a likely scenario of Pakistan and around the globe after 25 years. A pessimistic view, but realistic enough to think about and plan for the future. But are we doing anything about it? Lets have a look at the current energy situation of Pakistan and the

world. This year official expectations are that GDP growth rate will be around 6. With economy growing at such a pace, the energy requirements are likely to increase with a similar rate. On the other hand, international oil prices have not only broken all records but are touching new highs, with every news directly or indirectly affecting the black gold industry. What is the government doing to ensure a sustainable supply of energy resources for economic growth? What strategic steps are being taken to acquire energy resources in future? What are the incentives being offered to the foreign players to continue working in the exploration sector? What hurdles are stopping other big players around the world to enter Pakistan? What is the role of gas distribution companies so far? Are the citizens of Pakistan being robbed by energy giants with ever rising utility bills? What should be the real price of petroleum, kerosene and other oil products in Pakistan? Have we been able to make long term contracts with the countries to provide uninterrupted supply of energy resources? Will the government be able to provide enough sources to the citizens for a sustainable economic growth? Have we lost the race for acquiring maximum energy resources for future survival? One of the major problems facing the new government, the energy crisis, is intense, costly and multi-dimensional. The infuriating electricity and gas disruptions and soaring fuel prices in turn pushing the cost of living have made life difficult for people. The undeniable reality is that that this global spike will somehow have to be accommodated in energy prices in Pakistan. There is no quick solution to electricity shortage and the trend of surging prices is irreversible. There is very little the new government can do on this in the immediate term. At best, the problem can be prevented from aggravating until a sustainable solution is struck. Tough decisions will have to be made, and executed with commitment. The starting point of any remedial efforts should be an acknowledgement of the fact that the crisis is a self-inflicted one. It cannot be denied that something has been wrong down the line that caused this crisis. The country has nearly gone energy bankrupt while a total disaster appears to be round the corner unless pragmatism is shown. It is also important that lessons be learnt from the past mistakes on part of relevant circles. The crisis is still addressable as long as there is due vision and devotion. The golden age for energy in Pakistan has been s and most of the s, that is when Tarbela and Mangla dams were put into operation and other dams, including Kalabagh, were actively pursued. In subsequent years, action in the field of energy has been utterly recklessness. The prevalent crisis is a consequence of imprudent energy policies over the last three decades. One of the major limitations that have hindered energy prosperity in the country is short-sightedness. There has not been a meaningful and coherent energy policy in place over this period. Long-term and sustainable planning of energy have been an alien concept. The reason is fairly simple; energy projects usually require huge investments and commitment, making them undesirable to any regime. The attitude of delaying new projects, as far as possible, has been the common practice and is in fact the recipe of the present crises. In doing so, when things start getting out of control, haphazard and quick-fix measures are sought. In an attempt to avert an approaching energy crisis, as a result of negligible capacity addition during the s and the early s, the regime in decided to go for thermal generation through the IPPs. Undoubtedly, the IPPs provided a very healthy contribution at the supply end, enhancing power generation capacity by more than MW. Nevertheless, this power addition cost the country a fortune â€" apart from the controversial tariff structure, the move was against the spirit of energy sustainability and security for the country. The fact that the IPPs were set up at the terms of the investors suggest that it was a move made in panic. The last few years provide a perfect example of failure to make a timely response to the growing energy needs. A threefold increase in energy demand over the last two decades has been responded to with an ill-proportioned increment at the supply end. The prevalent energy crisis has not appeared overnight â€" the omens were evident for a number of years but the authorities failed to react in time. Senior WAPDA officials claim that in the government was officially warned about the approaching electricity crisis and was asked to take immediate measures to enhance generation capacity. The timely warning failed to receive any appreciation. The attitude of the relevant authorities has thus indirectly contributed to the growth of the dire crisis. Another example worth quoting here is that of the MW Neelam-Jehlum hydroelectric project. It got abandoned until the present power crises intensified towards the end of It is also noteworthy that WAPDA has traditionally pursued the major projects of national interest but failed to get the due positive response from the policy- and decision- makers. It is also important to plant relevant and qualified people at the key policy and

decision making positions. Quite often, these positions are offered to utterly irrelevant, ill-qualified and incompetent people. The track record suggests that energy offices are among-st the most coveted ones in any regime, simply because they are considered to be the most lucrative ones. There are examples when undergraduate and utterly irrelevant people have been appointed to run energy offices. There are also cases when the crucial positions have been used as incentives during political bargaining.

Chapter 8 : Demystifying Pakistanâ€™s Energy Crisis

Solutions of Current Energy Crisis for Pakistan November In this paper we have discussed the important facts that causes the shortfall in the supply of electrical energy in Pakistan.

Chapter 9 : Energy Crisis in Pakistan Essay, Energy Crisis in Pakistan Research papers

ï»¿ENERGY CRISIS IN PAKISTAN INTRODUCTION 1. An energy crisis is any great shortfall (or price rise) in the supply of energy resources to an economy. It usually refers to the shortage of oil and additionally to electricity or other natural resources.