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Terrorism & Electricity Industry

Relying on the Legislative Criminal Policy of Iran, & US Government Actions Against Electricity Terrorism

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Abstract. Power plants, electricity transmission and distribution networks could be severely damaged by a small number of well-informed attackers. With this degree of importance, electricity is highly appealing to terrorists and thus it is often the target of terrorism operations. Sabotaging these facilities, which disturbs the provision of people's basic needs, could pose a serious threat to the national security of the country. Sabotage is different from ordinary vandalism as the former aims at confronting the government. When the destruction of public properties is done to create public disorder and cause terror, the crime becomes terrorism. As a preventative measure against terror caused by hostile destruction of public facilities, these facilities must be protected through appropriate legislation and actions. One of the most effective methods of protecting these facilities is to define and enact penal laws and punishments for destroying electricity infrastructure facilities. As a result of an analysis of current legal articles in this area, the legislator's protection of electricity has been trivialized in some articles. In other articles, the legislator has classified this offense as *Mohareb* and as an act of terror with a heavy penalty imposed on the offender. If the offense of sabotage is considered *Mohareb*, it will be tried in a separate court through different procedures.

***Keywords**: Rules, Sabotage, Public Facilities, Punishment*

INTRODUCTION

Disruption in the supply of electric power can result from problems in any part of the system. Substations and the large high-voltage transformers that they contain are especially vulnerable, as are transmission lines that could be brought down by the collapse of a few towers (National Research Council, 2012). Accordingly, the author presents his research on the legislative criminal policies used to confront terrorism or sabotage of electricity in Iran. As hostile phenomena, property terrorism and sabotage, have a long history and are sometimes used as synonyms for destruction or vandalism. Terrorism against electricity can take many forms. Among them is the destruction of state electricity installations. This article focuses on the Iranian legislative policy in this matter.

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1. CONCEPT OF TERRORISM

The concept of terrorism is a close tie to hostility, terror, fear, and panic. The interference of the meaning of each one of the words is so intense which makes it hard to give a universal definition of terrorism. Although the words Terror and Terrorism are frequently used by individuals and governments, in many instances their implications of the word, due to their certain Interpretations differ from each other. The cause of such extensive variation is the entanglement of terrorism with political, cultural, social, and ideological readings (Foroughi et al., 2016). The absence of a specific and comprehensive definition of terrorism poses a problem not only in the state laws inside the countries but also in the international dimensions (Khabiri & Darbandi, 2011). Oxford Dictionary defines terrorism as "increasing fear; a person or an object that create significant panic (Wehmeier, 2001). The political encyclopedia defines terror as terror in the French language means creating fear and spreading horror; and in politics, it means the unlawful use of violence and intimidation against opponents and terrifying them. In addition, the attempts of opposition groups in hostile and unlawful acts in pursuit of political aims are called the act of terror (Ashuri, 2008). In the Law Terminology book, terrorism has been defined as criminal acts of several governments to create fear in individuals, guilds, certain classes, and/or the whole country (Jafari Langroudi, 1997). Criminology dictionary defines terrorism as a hostile act associated with systematic violence or threat by attempting murder, manslaughter, assault, and sabotage to threaten or terrify the target group which covers a more extended range than the [originally targeted] crime victims; and/or hostile act in creating an atmosphere of fear and panic (Najafi Abrandabadi, 2007). Article 421-1 of French Criminal Law defines terrorism as an individual or collective act aiming at creating intensive public disorder via hostility or terror. Based on this legal definition in French law, any individual or collective act or attempt to cause serious public disorder through horror or panic is called terrorism (Najafi Abrandabadi, 2004).

In England, according to the Law on Fighting Terrorism, terror has been defined as hostility against political agencies and/or using hostility for terrifying and surpassing people to fight against a certain population [or group of people]. In addition to the above-mentioned definitions, other definitions have been introduced on terrorism; in research in 1998, one hundred and nine of those definitions were collected. The first thing which comes to mind in noticing this number of variations and numerous opinions on terrorism is that there is no consensus on the nature and quality of terrorism and even some perceive it as a term with no legal significance, and neither the activities nor the methods used in them have any legal importance; this group see terrorism as supporters of invasions, and/or a combination of both (Mahra & Kargari, 2011). In general, glossary writers, law scholars, jurists, and individuals who have a specialty in international relations believe terror and terrorism include horrifying acts which seek hostile methods to achieve other goals. Despite no agreement on defining terrorism, the notable point is that in the past 30 years, a large number of anti-terrorism conventions have been passed which demand obligations to prosecute, convict or extradite the responsible persons upon the realization of the following acts. Those attempts or acts include hostage-taking, sabotage operations in the air and marine transportation, hijacking aircraft and attacking airports and supporting terrorist organizations (Tavasoli Naeini& Mohsenpour, 2014). In the Iranian criminal law too, despite the large number of damages caused by this crime, no definition has been provided for terrorism so far. The flaw of providing no legal definition of terrorism not only aims at the legislated criminal policy of Iran but also it exists in at least eight treaties at the international level which have been passed in the framework of the United Nations resolutions; the regional conventions- such as European Council Conventions- and national laws as to be added to those treaties; nonetheless, all [those treaties] have already proved futile (Najafi Abrandabadi, 2004).

As the term terrorism became universal during French Revolution (Abdollahi, 2009), the concept of ordinary vandalism is taken from the French Word Sabotage. Almost one century ago in France, as a result of disputes between the laborers of a Power Company and their Employers, the laborers inserted wooden shoes inside engine gears and by wearing wooden shoes and drilling

in the factory site, interrupted the production process. Since then, the term Sabotage has been used as destruction or vandalism. By attention to the attributes described above, this kind of terrorism does not mean to kill people, rather, they attack tangible objective goals by targeting properties by using any method such as fire and destruction; and trying to create fear and panic in the population by hostility. For this reason, writers have put destruction alongside other attempts such as manslaughter and abduction to define terror (Ashuri, 2008). In terms of international legal texts, article 56 of the addendum treaty (1); too, notes attributes of terrorism or sabotage against electricity as an act of terror. That article condemns any attacks on power generation stations (Aghaei, 2003).

Since terrorism, sabotage, and destruction (vandalism) are sometimes used interchangeably or synonymous, first, a definition should be specified for destruction. In the Iranian laws, including in *Tazirat (Punishments)* Law of 1996, chapter twenty-five in addressing burning, destroying, and loss of properties and animals, no definition is specified on destruction, and only the attributes are listed (Mir Mohammad Sadeghi, 2004). Based on view 7244.7 of the legal office of the Judiciary, destruction means ruining, demolishing, breaking the systems, spoiling, or making a property unusable; and if such act had been attempted deliberately targeting another person's property, that attempt will contain penal aspects. This paper discusses the act of sabotage that has taken place when the destructive attempts are aimed at facilities such as electricity as a public property in pursuit of political objectives, and the main goal of the criminal act had been to create terror and fear in the population. In another word, unlike ordinary destruction, sabotage means the individual or collective physical attacks against electrical equipment and facilities such as extensive fire and destruction to cause fear and panic in the population. For this purpose, in terrorism, although the procedure of work might be the same as ordinary destruction; the terrorism intention; that is, creating fear and panic in people distinguishes the two acts. In another word, all terrorists are criminals but not all criminals are terrorists even if they had committed the same acts (Ghamari, 2009). Because of the aforementioned explanation, it is specified that some terrorist crimes such as destruction are essentially public crimes that are regarded as acts of terrorism because of the purpose sought by the criminals. That is, if these crimes cause serious disorder or destruction of essential principles, target the pillars of government's authorities, and/or aim at generating fear in people, they will be considered terrorism (Hashemi, 2016). Inclusion of destruction of public electricity facilities in the list of terroristic acts relies on the ground that hostile means are being used to destroy public safety. Due to the importance of electrical installations for the present population, terrorists see these facilities as a valuable target. The reason for this attraction lies in the fact that terrorists desire public attention via media a precious opportunity in achieving their goals and thus, they choose targets that when attacked would cause the highest reflection in society (Mohtaram Ghalati, 2010). In this type of terrorism, the terrorists seek different methods of achieving their goals; in some cases, terrorists aim at certain installations and facilities such as power plants to create public anxiety and panics in pursue of enhancing pressure on those who are supposed to guarantee people's safety (Najafi Abrandabadi, 2004).

2. DIFFERENT CRITERIA IN DEFINING TERRORISM

Several criteria have been offered to provide a better understanding of terrorism; mental criterion, objective criterion, and combined criterion are the criteria used in defining the concept of terrorism.

2.1 Mental criterion

This criterion is concerned with the intention and motivation of the criminal who attempts a terrorist act. Clause one section 2331 of the U.S. anti-terrorism law is an example of adopting this criterion. Based on this clause, any acts that aim at terrifying, forcing, influencing, and affecting civilians or a state's policies will be an act of terrorism. The definitions given in regional

conventions of American Countries Organizations, The Commonwealth Independent States Organization, Arab Union, Islamic Conferences Organization, and African Union; too, have adopted this approach in defining international terrorism (Hashemi, 2016). The International Convention for the Suppression of the Financing of Terrorism has used the terms Intention and Knowledge of the committed [person or entity] in funding aid in terrorist operations acts, and mental criterion in other articles of that law in defining terrorism. In addition, article 2 of Preventing Terrorism passed in 1984 and the Terrorism Act of England passed in 2000 have specified terrorism attributes by mental criterion (Nezam Alhosseini Ezzabadi, 2008). In using mental criteria in defining terrorism, it suffices to say of the 109 definitions provided on terrorism, 65 percent of those definitions have observed the element of motivation (Najafi Abrandabadi, 2007).

2.2 Objective criterion

In this method, tangible and visible cases are used in defining acts of terrorism. Based on this criterion, which is applied in defining property terrorism, serious hostility against properties, installations and facilities are called terrorism operations. The three anti-terrorism conventions- save International Convention for the Suppression of the Financing of Terrorism- the Regional Convention of EU, SARC Convention, chapter C-46 of collection of Canadian Criminal Laws, the Collection of German Criminal Laws and chapter two of Chinese Collection of Criminal Law have all used the objective criterion in defining terrorism (Abdollahi, 2009). Of the total 109 definitions introduced on terrorism, 83.5 percent of definitions have used objective criteria in defining terrorism (Najafi Abradabadi, 2007).

2.3 Mixed criterion

Based on this criterion, first, the intention and goal of the committed [person or entity] as used in the mental criterion, serves in defining terrorism, followed by objective and visible attributes which are the aims of terrorist acts. Regional conventions such as the Commonwealth Independents States, Arab Union, Islamic Conference Organization, and African Union have all used this criterion. In the internal and state laws too, the collection of criminal laws of France and Peru; and the collection of Criminal Laws of Iran have used combined criteria in legislation. As an example, in article 1 of the Act on fighting the financing of terrorism, the mixed criterion has been used. The same article stipulates that the act of a person will be an act of terrorism if he (A) seeks hostile acts which lead to serious physical damages, abduction, unauthorized confiscation, and taking people as hostages; and (B) his acts aim at individuals who hold legal immunity; and (C) his intention of such attempt is to affect the policy of the Islamic Republic of Iran, other countries or international organizations that maintain representatives in the territory of Islamic Republic of Iran.

It can be noticed the objective criterion has been used in clause A of the mentioned Act. Based on this clause, hazardous attempts against the safety of aircraft or aviation, hijacking an aircraft during flight and exercising illegal control over it, committing hostile acts against aircraft passenger(s) and crews, or dangerous actions against the properties in the flying aircraft, regardless of the intention of the committed person(s) and the results thereof are considered as acts of terrorism; while, based on clause (C) if the destruction aims public, state-owned and private properties and facilities, environment those acts will be considered acts of terrorism if they had been attempted to affect the policy or politics of Islamic Republic of Iran or international organizations which maintain representatives in the Islamic Republic of Iran soil. Terrorism definition in clause C is based on a mental criterion.

Article 1 of the Islamic States Organization's convention too; has used both criteria in confronting terrorism. The same article stipulates that because of that convention, any hostile or threatening act which is attempted- regardless of intention or motivation- in "terrorism", including individual or group criminal plots aiming at creating fear in people, the threat to damage or put in

danger people's life, integrity, freedom, security or rights, endanger the environment or any public or private installations or properties, occupying them, endangering national resources or international facilities, endangering or threatening stability, territory and solidarity, political unity or governance of independent countries will be [considered as]acts of terrorism.

3. HISTORY OF TERRORISM AGAINST THE ELECTRICITY INDUSTRY

Destruction associated with hostility has always been present in all communities. As time passed, the means and forms of destruction changed. In a few cases, such as in Baghdad, successful attacks have been mounted against generation plants. More often, as in Colombia, efforts to attack generation have been prevented by the high levels of security that can be provided for such large concentrated targets. As a consequence, most of the attacks that have occurred have been against transmission and distribution systems. These systems make more attractive targets because they are physically widely dispersed and hence very vulnerable. Often facilities are located in remote places, making them difficult if not impossible to defend against explosions or bullets, or other projectiles fired from a distance. There have been frequent attacks on transmission and distribution facilities in Iraq by insurgent groups intent on contributing to general social disruption, embarrassing central authorities, and preventing the normalization of daily life. Many such attacks have occurred across Asia. For example, terrorist groups in Thailand have recently increased the size and number of their attacks against electric power facilities as part of a broader campaign to bring down the central government in Bangkok. Many parts of Africa have also witnessed such attacks (National Research Council, 2012). Although the infrastructure installations in Iran have suffered extensively from physical terrorism, the Iranian legislative policies have not explicitly recognized the destruction of such facilities as terrorist acts

4. POTENTIAL ATTACKERS, INCLUDING THE TERRORISTS AND ACTIONS TAKEN SO FAR TO REDUCE VULNERABILITY IN THE UNITED STATES

An extended outage of electricity would have profound consequences. Because electricity is so essential to modern industrialized societies, the power system has frequently been identified as a potential terrorist target. The U.S Office of Technology Assessment concluded: Some terrorist groups hostile to the United States have the capability of causing massive damage the loss of so many generating or transmission facilities that major metropolitan areas or even multi-state regions suffer severe, long-term, power shortages. The absence of such attacks has as much to do with how terrorists view their opportunities as with their ability. U.S. electric power systems are only one target out of many ways of striking at America and are not necessarily the most attractive. (National Research Council, 2012)

4.1 Actions by the Utility Industry

Actions by the utility industry in the U.S. to deal with terrorism focus on prevention, detection, and restoration. Prevention measures that the industry has implemented include:

• Self-determination of the proper alert level for physical and cybersecurity • Security improvements such as physical barriers and an increased security workforce for protecting physical facilities, and • More stringent security requirements for facility entry. In the area of detection, several activities are ongoing, such as • Training system operators to consider sabotage and terrorism as possible explanations for disturbances,• Implementing a real-time data collection process for reporting indicators of potential physical and cyber-events (such as the presence of strange vehicles and aircraft near critical facilities), • Holding conferences sponsored by industry and government, conducting dialogs, holding scheduled conference calls, and exchanging security-related alerts, brochures, and newsletters. Restoration activities include: • Preparing contingency plans for restoring service, • Stocking equipment needed for service restoration, •

Cataloging and agreeing to share spare transformers following an attack (National Research Council, 2012).

4.2 Actions by Government

analysis of terrorist capabilities and motivations suggests that infrastructure could be a prime target, especially as protection is enhanced at other targets. The plan calls for (1) strong public-private partnerships to foster relationships and facilitate coordination within and across critical infrastructure and key resource sectors; (2) robust multidirectional information sharing that will enhance the ability to assess risks, make prudent security investments, and take protective action; and (3) a risk management framework establishing processes for combining consequence, vulnerability, and threat information to produce a comprehensive, systematic, and rational assessment of national or sector risk. (National Research Council, 2012).

4.3 Operations and Standards

In the United States, a variety of entities exercise some form or other of operational control or coordination over parts of the grid. Until the passage of the Energy Policy Act of 2005, the electric industry's standards were entirely voluntary. The Energy Policy Act of 2005 led to these standards becoming mandatory with substantial financial penalties imposed for non-compliance (National Research Council, 2012).

4.4 Electric Power Industry Institutions and Organizations

The U.S. electric power industry today is composed of a wide variety of players, entities, and institutions, all of which play different roles, and the actions of individual asset owners and operators affect each other. It is a highly regulated industry, and facilities need to operate according to common standards and in coordinated operations. The "system" may behave as one large electrical machine, but its parts are owned and operated by more than 3,000 entities. (National Research Council, 2012)

4.5 Regulatory Activities and State Regulatory Commissions

Due to its technical and economic structure, the U.S. electric power industry is one of the most highly regulated in the nation. While other nations have adopted state-owned or national utilities to provide electric service, the United States early on adopted an approach that included a large number of private firms operating in natural monopoly settings and whose actions (e.g., determining rates, defining terms of electric service) were overseen by public regulatory commissions (National Research Council, 2012). Nearly all states have public utility commissions and/or energy offices that govern certain activities of regulated utilities operating according to laws in that state. Commissions are the ability to 1) set consumer prices, (2) impose penalties for non-compliance with rules and regulations, and (3) require prior approval of all financing (National Research Council, 2012).

4.6 IMPLICATIONS FOR SYSTEM RELIABILITY OF AN INDUSTRY IN TRANSITION

If public concerns about robust resilience to possible terrorist attacks are also considered, the required public overview of the planning process becomes further complicated.

Improving system reliability comes at a cost. Decisions to reduce the level of risks through the adoption of stricter standards or through investment to protect against various types of risks have to take into account (implicitly or explicitly) the question of whether the benefits of reducing risk are worth the expense (National Research Council, 2012).

Since our modern society is almost totally dependent on electrical systems, the widespread loss of choke points on systems that serve clusters of key defense bases, critical infrastructure assets, and major metropolitan areas would have a very detrimental effect. Pumping of potable water, sewage, and irrigation water; sewage treatment; food and fuel supply and storage; refrigeration; medical facilities, prisons, banking, communications, refineries, shipping, transportation, commerce, and home/commercial life-support systems (heating, ventilation, and air conditioning) all depend on a continuously operating power supply in an interoperable system. Should these interoperable critical infrastructures cease to function for an unacceptable length of time, the consequences to national security, public health and safety, and the economy would be huge (National Research Council, 2012).

Recent international developments have created a heightened threat to the nation's infrastructure from terrorist attacks, including the electric power supply and delivery system. Potential terrorist attacks against electric power systems include sabotage; physical assault; disruption of sensors,

Information systems, and computer networks; tampering with process safety; disruption of fail-safe systems; and indirect attacks such as disruption of water, fuel, or key personnel.

4.7 Physical Security Considerations for Electric Power Systems

Countermeasures to attacks on physical infrastructure such as substations include improved security engineering techniques, such as calculations of blast effects; the use of hardened construction; and calculation of minimum standoff ranges for threat weapons. Along with site hardening, new and improved surveillance equipment to allow rapid identification of and response to attacks could be installed at critical facilities. These improved electronic surveillance technologies include point vibration sensors, leaky coaxial cable sensors, seismic disturbance, and electrostatic field disturbance sensors, microphonic cable, and microstrain fiber option sensing systems (a new technology for perimeter protection) that could be employed as appropriate at sites depending on the level of threat and risk present (National Research Council, 2012).

A capability for locking and controlling manhole covers remotely, and for monitoring at points of access to underground utility systems in urban cores, would help protect key distribution lines. Today, when underground access points are secured (e.g., for a visit of a head of state or another major event), it is typically by welding and/or bolting the covers shut. This current labor-intensive case-by-case approach both increases the likelihood that the system will not be secured as often as it should be, and increases the likelihood that key access points will be overlooked (National Research Council, 2012).

Improved and expanded security systems would be useful in protecting key underwater cable systems. This could include multi-zone motion detection, automatic alarming calls, live and recorded video transmission, remote control via the use of information technology, and simultaneous streaming video transmission to operation centers. Some newer cables are now well protected, but some older cables still need attention (National Research Council, 2012).

5. ELEMENTS THAT CONSTITUTE PROPERTY TERRORISM CRIME AGAINST ELECTRICITY

Economy each country depends on a reliable supply of electricity and widespread disruptions of long duration could cause enormous economic damage and suffering. Under some circumstances (e.g., a heatwave) such blackouts could also lead to significant loss of life. Besides that, an attack during a period of extreme weather, such as a heatwave, might lead to the deaths of many people, albeit in a far less spectacular way than in a large explosion or a chemical or biological attack. However, the drawn-out agony produced by such an attack would create great public anxiety and outrage, especially if the government and private responses were seen as

inadequate, and perhaps, too, if the first attack were followed by other similar attacks. Public confidence could also be eroded, and anger heightened if terrorists were able to hold the grid hostage by mounting limited demonstration attacks with promises of worse to come if demands were not met (National Research Council, 2012). Accordingly, the legislator has passed a law to prevent this problem. Similar to other crimes, sabotage acts against electricity are not excluded from the existence of the three legal, physical, and mental elements and those three elements must be ascertained in legal punishment for the accused of that crime.

5.1 Legal elements

The legislator has already passed several laws in confronting physical terrorism against electricity, and some of them have noted the legal element of sabotage and destruction attempts against electricity in explicit and in implicit form. Article 73 and articles 251 to 263 of the Public Punishment Act (1925), article 126 of Tazirat (punishment) Law, article 687 of Islamic Punishment Law (1996), and Article 286 of Islamic Punishment Law (2013) are among the most important of those articles. In addition, the legislator has confronted this crime by bypassing certain laws. The law on punishing interruption in telecommunication and electricity means (1952), the law on punishing disturbers in state water, electricity, gas, and telecommunication installations (1972), and the legal Act on Eliminating Trespassing State Water and Electricity Installations passed in 1980 are in this alignment. It should be noted in some of those laws and articles, that destruction and disorder have been categorized as ordinary offenses and are not included in the category of sabotage against electricity.

5.2 Physical element

Unlawful intervention, destruction, disorder, causing fire or breaking facilities, or any other vandalism attempts are among physical elements attributed to crime against resources, networks, and power transmission. Any of those attempts, regardless of the means, will be the subject of this article. However; the legislator has not provided a legal definition of unlawful intervention, destruction, disorder, causing fire or pulling down, or any other vandalism acts.

‘Unlawful intervention’ labels any attempts without permission of power companies in connection with utilizing electricity, such as trespassing electricity networks for unauthorized use with any intention or purposes. Destruction of electricity installation was first addressed in the Law on Punishing Interrupters in Water, Electricity, Gas and Telecommunication Facilities, passed in 1980. In legal terminology [of Iran], ‘destruction’ is meant as ruining buildings and similar immovable properties (Jafari Langroudi, 1997). Some have defined this term as intentional and deliberate harm to the physical integrity of the object and property belonging to others (Goldouzian, 2001). As the legislator has not specified the mean of destruction, the physical element of the crime has been realized regardless of the means used in destruction. The objects which are destroyed could be technical installations of electricity, equipment, and accessories, including tanks, reservoirs, dams, water canals, pipes, and other equipment and systems of public usage.

‘'Fire' which constitutes a considerable portion of physical terrorism attributes has been defined by criminologists as a spread and uncontrolled cause of fire and disaster leading to the destruction of properties and in some cases harm against persons (Najafi Abrandabadi, 2007). 'Breaking the systems 'is an act in which even though it appears as if no tangible destruction had taken place, the attempts of the committed person lead usefulness of electrical equipment and facilities.

In the physical element, the physical act contains both positive (practicing the act) and abandoning- relinquishing an act. An example of positive action is when a person sets up a bomb in a power plant the explosion of which would destroy the installation. By examining the existing procedures and on the ground of the views expressed by several legal scholars the assumption of committing this crime or relinquishing the act- though farfetched- might be considered possible

(Mir Mohammad Sadeghi, 2004). An example is when an operator of the power station deliberately refrains from disconnecting power and causes a fire in the power station.

5.3 Mental element

The mental or psychological element of this crime in addition to general intention and deliberate act of destruction- which must be both consciously and knowingly should contain the certain intention to confront the government and ruin the state security too. The legislator has conditioned the realization of this crime with ascertaining the bad intention and treasonous of the accused person (specific intention) which are in fact attributes of terrorism and sabotage which serve as the main elements in crimes against security (Validi, 1999). In this regard, a person who commits a destruction crime with another intention rather than confronting the government and harming the security of the state will not be the subject of this article, even if in practice, his act causes public panic. It should be noted if the intention and motivation of the offender are to fight the system or government, the extent of destruction will be irrelevant. There are no differences between the direct and indirect intentions of the offender in sabotage acts.

In another word, the act of a person who had set up a bomb in a power station to kill people and blast the place is intentional manslaughter and it is the same for a person who had done a similar act to destroy power station facilities and receive insurance money with the knowledge that workers would be killed in the explosion. Attention to this element the type of conduction in facing the offender against public installation and facilities when the sabotage had followed mere personal benefits will differ when the offender had aimed at fighting against the system and in the latter case, the punishment will be harder.

6. LEGAL ATTRIBUTES OF TERRORISM AGAINST ELECTRICITY

Terrorism against electricity occurs in different shapes. Those shapes or forms would include destroying state electricity installations and other cases. The following clauses discuss the Iranian legislative policy in this matter.

6.1 Sabotage crime in public punishment law

Public Punishment Law as the first comprehensive penal law in addition to addressing several punishments, notes fire, ordinary and intensive destruction of buildings, and similar properties. Article 73 of the Public Punishment Law on crime and offenses against the internal security of the country, noted physical terrorism or sabotage implicitly. By that article of law, any person who deliberately and by bad and treason intention burned or destroyed public buildings (such as electricity) would be sentenced to execution.

6.2 Disconnecting and destroying telecommunication and electricity equipment/means

Upon public use of electricity in Iran and as public punishment law had no reference to crime against electricity, the law on punishing disconnecting telecommunication and electricity means was passed in 1952. By article 1 of that law, any person who destroyed the power centers and electricity transmission wires and cables of cities and villages for public disorder and security and/or in pursuit of political aims would be sentenced to two to five years of confinement in prison and if his attempts had led to one or more dead, he would be sentenced to execution.

6.3 The law on punishing destroyers of water, electricity, gas, and telecommunication installations

The law on punishing destroyers of water, electricity, gas, and telecommunication installations of 1972 was passed when a new round of fights against the Pahlavi regime had started and sabotage in public installations had been used as a suitable tool in confronting the government

(Najafi Abrandabadi, 2007). For this purpose, the mentioned law was passed to protect those facilities. Although the law had not mentioned other violations of electricity systems, it was considered important due to its specialty. Based on article 1 of that law, 'Any person who for disturbing public order and security attempts to destroy, cause fire, break facilities or any other sabotage in state-owned water, electricity, gas and telecommunication installations, their accessories and attachments including the dam, canal, water pipes, tools and means which have been established by government's expense or joint investment of the government and private sector, or by the private sector for public benefits will be sentenced to three to ten years of imprisonment in confinement and if his acts lead to the death of a person(s), he will be sentenced to execution.

6.4 Sabotage against electricity in Islamic Punishment Law

By examining the articles passed in Islamic Punishment Law, it is shown as the time passed and the vital importance of electricity has been recognized, the legislator gradually enhanced penal support of electricity and by adopting a more universal view, pursued reforms and completion of penal laws; and developed the scopes of mentioned crimes to cover a large portion of sabotage acts on electrical installations.

Tazirat (punishment) laws of 1983, although not referring to sabotage against electricity directly, shows trends of confronting sabotage in article 126. This article stipulates 'Any person who deliberately and generally put any residential or non-residential places including electricity installations on fire will be sentenced to one to three years of imprisonment. The punishment for destroying the mentioned objects will be six months to two years of detention; and if those crimes had been committed by use of bomb or explosive, the punishment will be two to five years.

The *Tazirat* (punishment) law of 1983 was unable to remove the complications caused by crimes against electricity. For this reason, in 1996, legislators passed article 687 to confront crimes against electricity. Article 687 can be considered as attributes of sabotage and physical terrorism. In this article of the law, it stipulates 'Any person who destroys, causes fire or pulls down or make any other destruction in public equipment and installations such as water, sewage, electricity networks and their accessories and systems including dam, canal, pipe systems, electricity power plants, energy, and telecommunication transmission lines (air, land or optic cables) and their generation, production, distribution, and transmission, which have been developed by the government or capital of the company, or joint investment of government and non-government sectors or by the private sector for public use, and, traffic signs or other signs which are installed in streets and roads for protecting lives of people or providing those facilities, regardless of intending disorder in public order and security, will be sentenced to three to ten years of imprisonment.' Para 1 of this article, by including a mental criterion, 'if the act had been committed to disorder public order and security and confronting Islamic government' has stipulated the punishment of Moharebeh (fighting with Islamic government) in addressing such acts (Mir Mohammad Sadeghi, 2004). Because of that law, the necessary conditions and grounds in realizing sabotage crime as addressed in this article of law are as follows:

First, the objects subject to illegal intervention, destruction, disorder, causing fire, ruined, or any other sabotage should be property.

Second, in this legal article, any destruction of electricity installations that had been developed for public utilization, regardless of the builder and utilizing person has been recognized as the subject of punishment.

Third, installations such as electricity production and distribution and power generation and transmission should have been already installed there.

Fourth, the destruction in this legal article has been expressed extensively and includes all cases of pulling down, sabotage, vandalism, manipulation, causing fire, breaking, and making the installations unusable.

Fifth, unlike public punishment law and/or other articles in Tazirat (punishment) law, this article has made no distinction between destruction and putting on fire; while the legal articles which were examined ruled less punishment for destruction than putting on fire or burning. This difference in punishment was on the ground that putting on fire would cause more fear, panic, and damage than destruction.

Based on Para 2 article 687 of Islamic Punishment Law, the punishment for initiating the crime of destruction, causing fire, or breaking public equipment and installation is one to three years of imprisonment. By examining the attributes of para 2, it is revealed in initiating the crime, there has been no difference ruled between the existence or lack of specific bad intention on disturbing public order and security; and confronting the government and both cases were punishable with the same sentences (Mir Mohammad Sadeghi, 2004). The biggest flaw expressed in this legal article is that the legislator has put the destruction of electricity, sewage, and power plants, the infrastructural installations, equal to destroying insignificant properties such as traffic signs.

In continuation of legislative policies, the Iranian legislator for the first time in article 286 of the Islamic Punishment Law of 2013, without clear and explicit reference to Terrorism, addressed some attributes of terrorist operations and ruled punishments for them. In this article of the law, it has been stipulated 'Any person who commits an extensive crime against the physical integrity of individuals, crimes against internal or foreign security of the country, spread and publish false news, disorder the economic system of the country, cause fire and destroy, distribute toxic, microbial and hazardous substances, open prostitution centers or accomplice in such acts, in a way that would cause serious disturbance in public order of the country, insecurity or major damages to the physical integrity of individuals or public and private properties, or cause spread of corruption and prostitution in extensive range will be convicted as *Mofsed fealarz* (corruptor on earth) and will be punished by execution. It can be observed that the legislator in its 2013 law, ruled *Efsad fealarz* (corruption on earth) as a crime distinguished from Moharebeh (fighting the Islamic government). In another word, if the corruptor on earth takes other means than arms (such as releasing toxic, microbial, and hazardous substances that cause intensive disturbance in public order of the state) and cause panics in people, he will be punished with a sentence of corruption on earth.

The legislature has left the destructive operations by employees of power companies in the mentioned laws, while any attack could be considerably amplified if aided by insiders, Workforce issues are critically important to maintaining a reliable supply of electricity, particularly in the event of a terrorist attack. Utility employees and contractors interact with the electric power system as managers, operators, line crews, suppliers of materials and services, and users, among other roles. Although workers and managers in this industry have an outstanding record of reliable performance, even a few pernicious people in the wrong place are a potential source of vulnerability should they choose to disrupt the system (National Research Council, 2012).

The risk of insider-assisted attacks can be reduced by strengthening background analysis for new and existing employees and contractors. If subversive or disaffected workers can be identified, attackers will lose a major potential advantage. Training operators and other workers to recognize and react to attacks or other major disruptions will help limit the extent of outages and further damage during a cascading failure. System simulators are likely to be very useful in this endeavor. In the long term, supporting (National Research Council, 2012)

7. SABOTAGE AGAINST ELECTRICITY IN COMPUTER CRIMINAL LAW

Modern power systems rely heavily on automation, centralized control of equipment, and high-speed communications. The most critical systems are the supervisory controlled and data acquisition (SCADA) systems that gather real-time measurements from substations and send out control signals to equipment, such as circuit breakers (National Research Council, 2012) .Electric power transmission and distribution systems are susceptible to attack generally with little risk to the attacker, a well-recognized fact by saboteurs and terrorists. The remote locations of many transmission power lines, substations, communications facilities, or natural gas supplies to generating facilities allow attackers to conduct their operations with little or no risk of detection. (National Research Council, 2012). For this reason, the legislator submitted article 11 to confront Sabotage against electricity in computer criminal law. Article 11 computer criminal law stipulates that 'Any person who to endanger the security, comfort and public security of the acts mentioned in Articles (8), (9) and (10) of this law against computer systems and telecommunications that are used to provide essential public services, such as medical services, water, electricity, gas, telecommunications, transportation, and banking, will be sentenced to three to ten years of imprisonment.

CONCLUSION AND SUGGESTIONS

By examining the legislative policy of Iran in addressing terrorism, by considering the political thoughts on terrorism, this important conclusion can be made that the Iranian legislator has acted significantly per case, conservative and ambiguous, and has merely discussed some attributes of terrorism without providing a comprehensive and full law on this issue. It appears that based on the doctrine of legalization of crime, presenting a suitable definition of terrorism is a legal necessity and the Iranian legislator must carry out independent legislation for effective confrontation with terrorism. While electricity is among the main infrastructural elements and society needs this industry to continue functioning, any attempts against these facilities will be highly dangerous for this reason; a suitable legislative policy must be adopted for it. By studying the criminal legislative policies on electricity, it can be seen that first, no clear mention of the terrorist nature of attempts against electricity is provided, second, in many legal articles related to electricity, the legislator has gone extremely soft on criminalizing the attempts and the punishments are very light by considering the benefits earned via physical terrorism against this important industries; third, when legislator noticed light punishment rued for terrorism against electricity, it adopted another extreme and considered this crime as *Moharebeh* (fight against Islamic government) by ruling the punishment of *Mohareb* (fighter against Islamic government) for the guilty; while, Moharebeh (fighting against Islamic government) is one of the serious crimes the main characteristics of it are changes in quality, type and amount. On the other hand, terrorism is a *Taziri* (punishable by law) which could be little, harsh, convertible-bailed- and acquitted. Fourth, it seems Iranian legislation in 2013 by legislating article 286 of Islamic Punishment law tried to separate the crime of fire and extensive destruction of electrical installations, which is among significant attributes of physical terrorism and had been included as Taziri (punishable) crimes in 1996 Tazirat law from *Moharebeh* (fighting against Islamic government) in pursuit of eliminating the above-mentioned ambiguity. Nevertheless, the ambiguities have remained; for, by recognizing the crime as *a corrupter on earth* and ruling death sentence, which is a *Taziri (*Islamic punishment) law, the legislator had included those crimes in *Hodoud* (crimes with severe punishments) category in the article 286. As *Hodoud* had been exercised since the beginning of Islam to this day and is excluded from the legalization of crimes and punishments, they cannot serve as a suitable legislated criminal policy. The result of considering sabotage against water and electricity as *had (Hodoud)* offenses will be retroactive. This kind of legislation is a very risky act and by such inclusion of *Moharebeh* and *Efsad felarz* (fighting against Islamic government and corruption on earth) in the Islamic Punishment Act, the law can cover all those

who had destroyed public installations before the revolution in an attempt to fight the then Iranian government. Fifth, contrary to public punishment law or other laws of Tazirat, including articles 675, and article 687 of *Tazirat* law of 1996, no distinction has been made between destruction and fire. While in article 675, punishment for destruction was lighter than fire or burning. The legislator should be committed to consistency and it is unacceptable for a legislator to rule more severe punishment for fire than destruction in one article and rule the same punishment for both crimes in another article. By reviewing the subjects discussed, it seems by the universality of terrorist acts and their intensity, Iran; like other countries like France, must adopt and establish specific legislative criminal policies against terrorism regardless of other criminal topics such as *Moharebeh* and *Efsad fi larz* (fighting against Islamic government and corruption on earth). The adopted law must address attributes of physical terrorism against electricity, establish legal penal jurisdiction for prosecuting the offenders and establish differential prosecution rules to confront this crime. Also, measures taken by other countries against terrorism to electricity systems like those mentioned related to US measures should be taken by the Iran government too.

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