

Nuclear power programme for malaysia engineering



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Contents

- Part IV – Decision

Abstractions: Malaysia is be aftering to ship on a Nuclear Power Programme as an option to provide the energy demand in the state. This move doubtless requires careful be aftering in assorted facets including economic, technological demands and managerial. But the most of import facet before the beginning of this atomic programme is the constitution of a sound regulative model and the degree of readiness of Malaysia in set uping a atomic energy policy. This paper tries to reply the chief inquiry ‘ What is the bing policy model and what are the list of international policy and criterions that can be applied by Malaysia in relation to the move towards shiping a atomic power programme? ‘ More significantly, this inquiry will later take us to an of import analysis which is, ‘ What can be done by Malaysia to better the bing model in the attempt to follow with more international criterions and best pattern ‘

Part I – Introduction

Since many old ages ago, Malaysia has been trusting on fossil fuels as the chief beginning in bring forthing electricity. As at 2008, Malaysia entire gross electricity production was at 105, 784 GW/h.[1]Malaysia electricity coevals is extremely depended on fossil fuels beginnings, where 90 % of the capacity came from gas, coal and distillation. The lone non dodo fuel option that is presently being used in Malaysia is hydro power, accounting merely 9 % of the entire capacity.[2]

When Malaysia ' s Prime Minister announced the program for Malaysia to ship on a atomic power programme late, most of the feedbacks are negative. The determination to hold a atomic works in operation station twelvemonth 2020 was perceived by some non-supporters to be ask foring ' disaster ' to Malaysia and the environment, by and large. Most that are opposing atomic power are by and large those who are non convinced on the usage of atomic power in bring forthing electricity and those who are doubting on the economic sciences of atomic energy and the range of Malaysian and besides International jurisprudence on atomic and radioactive stuffs.

As widely known, atomic energy effectivity or exposure to damaging incidents depends so much on the performing artists. Those using atomic energy with old engineerings within a least regulated status or unsupervised by the appropriate authorization can sometimes go a cause for unwanted atomic happenings.

While it is true that radioactive substances in atomic power works can be risky if overused or non decently handled, the jurisprudence and policies adhering the atomic industry has now evolved to a phase that put ining province shall, in any fortunes, act in conformity with it. Failure to obey and follow with the jurisprudence and the understandings signed by the put ining province or authorities will ensuing a liability or claim.

Indeed, the universe may still retrieving the Chernobyl[3]accident (1986, Soviet Union) as the worst atomic accident of all time happened in the industry, some 25 old ages ago, but it is in fact leaves some good effects to the universe and to the industry of atomic, peculiarly. Since the accident,

development on security facet on atomic energy and the impulse to beef uping regulative system in the industry went on to be the focal point of every individual operation unit and the industry stakeholders. The push to reenforce rigorous ordinances and safe behavior guidelines for atomic energy operation came approximately in about every atomic energy- related conventions.

Conventions such as The Convention on Nuclear Safety 1994 and The Joint Convention of Fuel and Radioactive Waste Management 1997 have paved the manner for the industry to adhere minimal criterions of environmental protection that can caused by atomic hazards. These pacts have given a much greater legal strength to International Atomic Energy Agency (IAEA) ' s safety rules and guidelines which was before the accident, were taken as merely a mere mention.

This paper will show on the bing regulative model in Malaysia and attempts to show assorted international instruments relevant to atomic programme and what needs to be included as consideration for Malaysia in shiping its ain atomic power programme and the foundation of their new atomic energy policy.

Part II – Background

2. 0 MALAYSIA ENERGY MIX AND POLICY

Since 1981, Malaysia ' s energy policy is based on the Four Fuel Diversification Policy, which the four are oil, coal, natural gas and hydropower. In 1999, a program to alter the policy to go the Five Fuel Policy, adding Renewable Energy (RE) as the fifth fuel, was proposed. The purpose

of the new policy was to at least bring forth 5 % of the state ' s electricity from RE before 2005. However, due to hapless planning and hinderance in implementing it, the purpose to salvage some USD 1. 64 billion over 5 old ages period if the state use RE is yet to be achieved until now.

Few old ages subsequently, a survey was carried out and the findings showed that shiping a atomic energy programme for electricity coevals will non merely salvage money for the state but besides cut down green house gas (GHG) emanation. The authorities of Malaysia decided to prosecute on atomic programme and a commission named Nuclear Power Development Steering Committee was founded with purpose to hold the atomic power works up for full operation by twelvemonth 2020 or 2025.

On 3rd November 2006, Malayan authorities determination to purchase their first atomic reactor with capacity of 20MW was announced by the Minister of Science, Technology & A ; Innovation. This move has shown that Malaysia is so serious in the effort to get the better of future energy deficit with atomic power programme. Malaysia ' s finding can besides be seen with the foundation of Malayan Nuclear Agency during the same twelvemonth.[4]

In 2010, the authorities has allocated USD 7 billion in the budget to construct atomic power works (NPP) with eight possible locations has been indentified on the peninsular Malaysia. A powerful atomic reactor of 1000 MW has the ability to bring forth adequate capacity of electric energy for a community with around 1 million people. That is why Malaysia is looking frontward to see atomic energy as the beginning of electricity coevals.

2. 1 THE ECONOMICS OF NUCLEAR ENERGY

It has been proven that atomic energy is capable to bring forth higher sum of electricity than fossil fuels or renewable energy. For comparing, in order to bring forth 1000 MW electricity, about 2 million metric tons of coals are required in the procedure, whereas merely about 30 metric tons of U are needed to bring forth the same sum of energy. This is due to the built-in feature of U itself which contains more heat value than other energy beginnings. Figures below show different types of fuels and the heat value it carries.

Heat Values of Various Fuels

Beginning: World Nuclear Association, 5 March (2010)[5]

Because of the capableness of U to bring forth energy even from such little sum, it makes atomic power a cost effectual options in the longer term as compared with others. Many put ining states around the universe have made this theory proven, when an analysis of bring forthing cost were done, with comparings of atomic and other energy beginnings. Below is the table depiction OECD coevals cost by type of energy beginnings:

State

Nuclear

coal

coal with CCS

Gas CCGT

Onshore air current

Czech R

7. 0

8. 5-9. 4

8. 8-9. 3

9. 2

14. 6

France

5. 6

—

—

—

9. 0

Japan

5. 0

8. 8

—

10. 5

—

Slovak republic

6. 3

12. 0

—

—

—

Switzerland

5. 5-7. 8

—

—

9. 4

16. 3

USA

4. 9

7. 2-7. 5

6. 8

7. 7

4. 8

China*[6]

3. 0-3. 6

5. 5

—

4. 9

5. 1-8. 9

EPRI (USA)

4. 8

7. 2

—

7. 9

6. 2

Eurelectric

6. 0

6. 3-7. 4

7. 5

8. 6

11. 3

Belgique

6. 1

8. 2

—

9. 0

9. 6

Korea

2. 9-3. 3

6. 6-6. 8

—

9. 1

—

Nederlands

6. 3

8. 2

—

7. 8

8. 6

Russia*

4. 3

7. 5

8. 7

7. 1

6. 3

Germany

5. 0

7. 0-7. 9

6. 8-8. 5

8. 5

10. 6

Hungary

8. 2

—
—
—
—

Beginning: OECD/IEA NEA 2010, table 4. 1. A , adapted from World Nuclear Administration

2. 2 MALAYSIA EXISTING REGULATORY FRAMEWORK

Presently, there is merely one act in Malaysia that encompasses on the usage of atomic energy. The Atomic Energy Licensing Act, Act 304 in Laws of Malaysia was gazetted in June 1984. This act was set up “ to supply a footing for ordinance and control of atomic energy, for the constitution of criterions on liability harm and for affairs connected therewith or related thereto. ”[7]

Through this act, a regulative organic structure which is to the full in charge on this affair named The Atomic Energy Licensing Board (AELB, cited as the Board in the Act and in this study) was established.[8]Under Section 3, subdivision 8 of this Act, it is stated that the maps of the Board, among others are:

To supply regulative advise to the authorities of Malaysia associating to this act and development referring thereto with peculiar mention to the deductions of such development for Malaya

To exert control and supervising over the production, application and usage of atomic energy and affairs incidental thereto

To set up, keep and develop scientific and proficient cooperation with such other organic structures, establishments or organisations in relation to atomic affairs or atomic energy as the Board thinks fit for the intents of this Act

The Board is besides obliged to guarantee safety, security and safeguarding peaceable atomic – related activities in Malaysia.

However, most portion of this act encompassed on the topic of licencing atomic activities. Merely little fraction of the Act touched on Health and Safety[9]facet, although that portion was besides concentrating on the protection of workers and non the safety or security aspect upon installing of atomic installations or more wide-ranging position. Part VI of the Act underlined the jurisprudence associating to the disposal of radioactive waste. Authority has the right to order the licensee to decide the status the soonest when atomic installations are so found non up to the needed criterions of operation. It is stated that all licensee shall follow effectual step to protect ‘ life, belongings, wellness and the environment ‘ , should it is found that during the atomic installing or operation, an jeopardizing state of affairs exist. Besides, stated in the Act that no individual shall transport radioactive waste without mandate, and that the mandate will merely be given to the appropriate individual, if the authorization thinks that it will non enforce any injury to the protection of the populace, by and large. This act is so demands to be amended so that the range covered will to the full covers all facet in the atomic power programme. There are much policies and international instruments or guidelines that should be applied by Malaysia in order to hold a more comprehensive statute law model for the industry. Part III of this <https://assignbuster.com/nuclear-power-programme-for-malaysia-engineering/>

study will show on some of the many instruments that are available and relevant to be applied by Malaysia and some recommendations that can be considered.

Part III – Analysis

3.0 CONVENTIONS, LEGAL GUIDELINES AND STANDARDS CONCERNING THE USE OF NUCLEAR ENERGY

On Safe Practice in the Nuclear Power Plant

The purpose of The Nuclear Safety Convention 1994 is to supply guidelines for states shipping atomic energy plan to guarantee and keep ceaseless safe pattern across the industry. As stated in the Article 1, Convention on Nuclear Safety (IAEA Legal Series No. 16, Vienna 1994) , the convention ' s chief aims are to “ keep a high degree of atomic safety in civil atomic power workss and related installations, to protect persons, society and the environment from harmful radiation, and to forestall or extenuate accidents ”[10]

However, this convention is non moving as to supply elaborate and specific international safety criterions for atomic activities. Alternatively, its purpose is to seek all provinces shipping a atomic program to give their committedness to use cardinal safety rules in the installing of their atomic power works. Under this convention, parties are expected to set about appropriate stairss to guarantee:

Safety at atomic installings site is the extreme of import

Trained staff and expertness are equal

Quality confidence programmes are established

A systematic and inclusive appraisal on safety are carried out intermittently

Degree of radiation exposed to the environment must be every bit low as possible

Due to the known hazard related to atomic energy, no affair how good the design of the atomic installation, parties are to fix an exigency program for worst-case scenario

While this convention does non mean to be a control mechanism for duties from parties, it is aimed that the convention will work as tool to enable ' peers review ' procedure. Through this a proficient steps are expected to be identified so parties can seek attack to decide any jobs related to safety.

On Radioactive Waste Management

The Joint Convention on the Safety of Spent Fuel and Radioactive Waste Management.[11]

In 1997, another convention was held following the impression of the Nuclear Safety Convention, with an purpose to guarantee high criterions of safety and accidents bar being adopted by member provinces put ining a atomic power works. Under this convention, in line with Article 19 (eight) of Nuclear Safety Convention, it is clearly stated that any radioactive waste must ever maintain at the most minimal degree. In add-on to that, parties

must understand and take that in the procedure of developing, putting and running their atomic power plan, they shall not enforce ' undue load ' to the following countries, including to what is already permitted for present countries. This phrase appears to enforce correlativity between the convention and the proviso stated about ' intergenerational equity ' .

[12] Article 24 of the Joint Convention demands that national radiation to hold parametric quantity harmonizing to the international criteria on radiation protection. Parties are besides expected to follow ' appropriate disciplinary steps ' to avoid unintended radioactive substance releases to the environment. Article 27, underscore that any radioactive waste or spent fuel from atomic activities may merely be exported to a province if the receiving province has the capability to manage radioactive substances as how required by the convention, and that the province has been informed earlier and besides has given its consent for the export or transit activities.[13]

On control of transboundary atomic hazard

As how it been patterns across the Earth, Malaysia should besides acknowledge the duty to decrease hazard related to atomic activities and prevent any detrimental incident that can convey injury to other provinces or any incidents that can do radioactive pollution to the environment. Any radioactive waste is prohibited to be dumped at the sea. All waste is expected to be managed carefully by implementing a systematic waste management. Prohibition on radioactive waste disposal in Asia and the Pacific is cited under ASEAN Treaty on the South East Asia Nuclear - Weapon Free Zone 1996.[14]

Nuclear Installations: Presentment and Consultation

States that are about to put in a atomic energy installation are to advise and execute audience, which is intended to minimise transboundary hazard. States are required to subject information on their program to the neighbouring provinces, normally one that portion international boundary line. The information exchange is to allow the other provinces are kept informed and is able to reexamine the program and later do suited remarks for the interest of safety and wellness protection applicable to them, if any. While neighboring provinces has no veto power or to halt a atomic installing even the site takes topographic point near to the shared boundary lines, they are allowed to execute resistance move and / or seek legal actions against it. Example of instances on this topic:

1996 - Irish republic opposing the licensing of a deep storage installation at the Sellafield, near the boundary line of Irish Sea

1997- South Korean protest over safety referring a Chinese atomic waste site near North Korean Boundary line

In instance of Nuclear Emergency: Cooperation and Aid

On presentment of exigency events

States are to advise the other provinces if they are likely to be affected from atomic accidents or incidents. This duty is clearly stated in international conventions and guidelines[15]on atomic energy. On 18 November 1986, the Convention on Early Presentment of a Nuclear

Accidents[16]underscores that every province has the right to be given
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timely and accurate important information in instance of exigency associating to atomic incidents or accidents caused by atomic installing. This practises it to enable the likely affected provinces to fix and take all precautional step to decrease any likely impact. The convention emphasized in item what information should be supplied and in clip of farther information is requested by other provinces, the installing province shall react quickly. However, this convention limit its range that merely ' transboundary releases ' related incidents are obliged to be applied under this convention. Therefore any military- related atomic activities or accidents that the consequence is non transboundary will be excluded.

On aid during exigency

The 1986 Convention on Assistance in the Case of a Nuclear Accident and Radiological Emergency discussed on the topic of aid to the provinces during exigency instances caused by radioactive releases. States are allowed to seek for international aid to protect ' life, belongings and the environment ' . IAEA will play a coordination function to react and do appropriate resources available

Summary of some relevant international instruments

Convention on Nuclear Safety (INFCIRC/449)

Comprehensive Safeguards Agreement (INFCIRC/153 Corr.)

Convention on Early Presentment of a Nuclear Accident (INFCIRC/335)

Convention on Aid in the Case of a Nuclear Accident or Radiological Emergency (INFCIRC/336)

Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (the ‘ Joint Convention ‘) , reproduced in papers INFCIRC/546

Additional Protocol pursuant to INFCIRC/540 (Corr.)

Convention on the Physical Protection of Nuclear Material (INFCIR/274) and Amendment

Convention on Auxiliary Compensation for Nuclear Damage

Vienna Convention on Civil Liability for Nuclear Damage (INFCIRC/500)

Protocol to Amend the 1963 Vienna Convention on Civil Liability for Nuclear Damage

Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention, reproduced in papers INFCIRC/402

Revised Auxiliary Agreement referring the proviso of Technical Aid by the IAEA

3. 1 MALAYSIA ‘ S CURRENT INVOLVEMENT IN INTERNATIONAL TREATIES, CONVENTIONS AND AGREEMENT

Harmonizing to the IAEA Country Fact Sheets, last updated in April 2011, Malaysia has merely signed four many-sided understandings and 1

precautions understanding. The tabular array below depicts the list of understandings title and its official abbreviations (on the left side) and understandings which has been signed by Malaysia.

Multilateral AGREEMENTS

Abbr.

Title

In Force

Status

NOT

Convention on Early Presentment of a Nuclear Accident

1987-10-02

Signature: A 1987-09-01

Aid

Convention on Aid in the Case of a Nuclear Accident or Radiological
Emergency

1987-10-02

Signature: A 1987-09-01

RSA

Revised Auxiliary Agreement Referring the Provision of Technical Aid by the
IAEA (RSA)

1981-02-13

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Signature: A 1981-02-13

RCA

Third Agreement to Widen the 1987 Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology (RCA)

2002-03-26

credence: A 2002-03-26

SAFEGUARDS Agreements

Reg. No

Title

In Force

Status

873

Application of precautions in connexion with the Treaty on Non-Proliferation of Nuclear Weapons (with Protocol)

1972-02-29

Signature: A 1972-02-29

Beginning: IAEA Country Fact Sheets ; Malaysia. Last updated onA 2011-04-11A byA IAEA Office of Legal Affairs, besides available at nexus hypertext transfer protocol: //ola. iaea. org/factSheets/CountryDetails. asp? country=

MY

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Comparing with neighboring states in Asia like Japan, Korea and Indonesia, it is clear that possibly in the hereafter, Malaysia could see signing and use more relevant international criterions and duties. Indonesia, being the closest neighbour state which has besides implementing its ain atomic programme, has already signed at least 10 many-sided understandings.

[17]Both Japan and Korea have besides signed a figure of understandings similar to Indonesia. However, Malaysia is presently be aftering to develop a more wide-ranging act to regulate atomic activities including affairs on import and export of radioactive stuffs, site demands, compoundable offenses and criminalisation of activities related. A comprehensive Atomic Energy Act is now being reviewed once more in attempt to follow with IAEA Standards. AELB, being the appointed regulative board by the authorities of Malaysia, is now active taking portion in assorted treatments with international bureaus in the procedure to beef up the legal and policy substructure for the state. Amendment of the current Act 304 is a likely and a jutting new act is besides considered under the extension of Act 304.

3. 2 RECOMMENDATIONS FOR MALAYSIA TO ADOPT RELEVANT INTERNATIONAL INSTRUMENTS, STANDARDS AND GUIDELINES

Bound to international supervising and instruments will doubtless cut down the freedom that antecedently enjoyed by the installing authorities or province to find their ain atomic programme. However, the committedness towards that will show that the authorities of Malaysia is ready to set up a responsible and rightful atomic power programme. Some international instruments that Malaysia should seek to see are as follows:

Multilateral AGREEMENTS

Abbr.

Title

P & A ; I

Agreement on the Privileges and Immunities of the IAEA

CPPNM

Convention on the Physical Protection of Nuclear Material

VC

Vienna Convention on Civil Liability for Nuclear Damage

NOT

Convention on Early Presentment of a Nuclear Accident

Aid

Convention on Aid in the Case of a Nuclear Accident or Radiological
Emergency

Nitrogen

Convention on Nuclear Safety

VC/OP

Optional Protocol Referring the Compulsory Settlement of Disputes

JP

Joint Protocol Relating to the Application of the Vienna Convention and the
Paris Convention

RADW

Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management

Polyvinyl chloride

Protocol to Amend the Vienna Convention on Civil Liability for Nuclear Damage

SUPP

Convention on Auxiliary Compensation for Nuclear Damage

ARCAL

Co-operation Agreement for the Promotion of Nuclear Science and Technology in Latin America and the Caribbean (ARCAL)

RSA

Revised Auxiliary Agreement Referring the Provision of Technical Aid by the IAEA (RSA)

RCA

Third Agreement to Widen the 1987 Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology (RCA)

CPPNME

Amendment to the Convention on the Physical Protection of Nuclear Material

ARASIA

Co-operative Agreement for Arab States in Asia for Research, Development and Training Related to Nuclear Science and Technology (ARASIA) – First Extension

AFRA

African Regional Co-operative Agreement for Research, Development and Training Related to Nuclear Science and Technology (AFRA) – Fourth Extension

Beginning: IAEA Country Fact Sheets ; Malaysia. Last updated on 2011-04-11 by IAEA Office of Legal Affairs, available at [nexus hypertext transfer protocol: //ola. iaea. org/factSheets/CountryDetails. asp? country= MY](http://ola.iaea.org/factSheets/CountryDetails.asp?country=MY)

3. 3 IAEA MILESTONE: MILESTONE FOR MEMBER STATES INTERESTED IN NUCLEAR POWER PROGRAMME

IAEA as the universe ' s Centre of cooperation in the atomic industry has provided some guidelines and milepost attack for member provinces that are interested in shipping their ain atomic power works.

Harmonizing to IAEA, in putting up a program to present the atomic power works, there is a list of activities to be done. These activities can subsequently be divided into three different stages of development. At every completion of each stage, it is considered and marked as one milepost achieved. Each activities and mileposts are divided into sub-sections so that the authorities or province putting in the atomic power installations can easily see and measure the public presentation of each stage upon completion.

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This is besides to enable the authorities to anticipate what move should be taken following in order to accomplish the following targeted milepost.

IAEA split the stages into three classes, which are:

Phase 1: Considerations before the determination to ship a atomic power programme. During this stage, national energy policy and policy determination on atomic energy has been discussed, drafted and ready to be approved.

Phase 2: Preparatory work for the building and installing of atomic power works and installations needed. This must be done after the policy determination on atomic energy has been approved and taken.

Phase 3: Activities to use the first atomic power works.

The mileposts are marked as three different phases, which are:

Milestone 1: Ready to do a knowing committedness to a atomic programme

Milestone 2: Ready to ask for formal commands for the turn overing out of the first power works

Milestone 3: Ready to committee and run the atomic power works

The diagram below, extracted from the IAEA web site, shows the mentioned stages and mileposts.

Nuclear Infrastructure Development

Beginning: IAEA web site, available at nexus hypertext transfer protocol:
[//www.iaea.org/NuclearPower/Infrastructure/milestone.html](http://www.iaea.org/NuclearPower/Infrastructure/milestone.html)

IAEA has besides recognized that there will be at least three major organisational entities involve in the development of a atomic power programme, viz. the authorities, the regulative organic structure and the operator of the atomic installations or power works. All three entities will play important but different functions and as the programme advances to the following milepost, duties of each entity will alter consequently.

The figure below depicted the function for the three entities in each stage.

Milestones

Beginning: IAEA web site, available at nexus hypertext transfer protocol:
[//www.iaea.org/NuclearPower/Infrastructure/milestone.html](http://www.iaea.org/NuclearPower/Infrastructure/milestone.html)

3. 4 RECOMMENDATIONS FOR MALAYSIA ON RELEVANT INTIATIVES BASED ON IAEA MILESTONE

Some of the elements or basic activities that need to be implemented by Malaysia in each stage and milepost include:

Milestone 1

A statute law model encompasses the national energy policy with the considerations from economic, commercial and environment position.

Constitution of regulative organic structure, a licensing system, determining a list of duties of licensees.

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Specifying the function and the relationship that will be played by the regulative organic structure appointed by the authorities in all nuclear-related activities and programme.

Government to follow international criterions and duties (for illustration IAEA precautions)

Government and regulative organic structure to prosecute in international cooperation

Government to province the committedness to utilize the atomic energy merely for peaceable intents and the duty to follow with international jurisprudence

Milestone 2

After the first milepost has been successfully achieved, the engagement of the regulative organic structure will increase from here onward. At this phase, some of the of import issues that need to be under the attending of regulative organic structure are:

Constitution of ordinances, codifications and criterions for siting, building and operation, radiation protection, waste direction, environment appraisal and exigency planning

Foundation of relationship with other international regulative organic structures

Provision to develop uninterrupted equal supply of human resources to vouch the continuity of the atomic programme

Underscoring the method of transit, storage and handling of radioactive stuffs

Developing review programme

Milestone 3

At this phase, a comprehensive statute law model and committedness to international criterions are expected to be good established in the state. The support of human resources, atomic installations and betterment on the regulative model and policy alterations are done, if necessary. Regulatory organic structure is expected to go on regulate, and use appropriate enforcement strategy on all nuclear- related activities through out the life of the programme.

Part IV – Decision

Nuclear programme is likely the most complicated energy programme due to its relation to to a great extent risky radioactive stuffs that, if non handled carefully can convey monolithic inauspicious impact to life, belongings and the whole environment.

That is why a atomic programme required the installation province and authorities shiping the program to execute punctilious and thorough planning and readying. The committedness on the programme must foremost initiated with the constitution of regulative model and the committedness of the state to the international policy related to atomic energy. It is overriding to Malaysia to show the attempt to follow with international environment jurisprudence and criterions in order to set up a

responsible atomic power programme. Constitution and conformity to these international instruments will help Malaysia to modulate and run the atomic programme in a safely, internationally accepted and effectual mode. It is doubtless that atomic energy policy and a new national energy policy will be the drivers for the development of atomic programme. While it is non discussed in this paper, there is much grounds about states or authorities without proper planning and statute law model that support the energy policy failed to successfully ship and run their atomic power programme.