



# National Policy for the Atomic Energy Program of the Kingdom of Saudi Arabia







## **Introduction:**

The Kingdom of Saudi Arabia (the "Kingdom") endeavours to move from an oil-dependent economy towards a more diversified and productive economy that is based on the principles of sustainability, competitiveness, fairness, transparency, and the creation of an open investment climate to achieve economic and social development, and to safeguard and promote national gains. One of the challenges facing the energy sector in the Kingdom is the steady increase in the consumption of fossil fuel based energy, which requires the establishment of an energy sector that is efficient, reliable, and capable of meeting the Kingdom's energy needs for the production of electricity, desalinated water and other needs, and thus contributes towards a balanced and comprehensive economic development.

This shows the importance of introducing peaceful atomic energy into the national energy mix to ensure the Kingdom remains a key player in the field of energy, in realization of the ambitious Saudi Vision 2030.

Stemming from the Kingdom's desire to fulfil its obligations towards the international community as defined by international treaties and conventions, and adhering to international best practices, the Kingdom has adopted the following basic characteristics and principles in its Atomic Energy Program:



1. Limiting all nuclear development activities to peaceful purposes within the limits of legislations and international treaties and conventions;
2. Complying with the principle of transparency in all regulatory and operational aspects;
3. Applying nuclear safety and security standards in nuclear and radiological facilities, in accordance with an independent regulatory and monitoring framework;
4. Ensuring optimal use of the Kingdom's natural resources of nuclear material and applying the international best standards and practices for radioactive waste management; and
5. Achieving sustainability by developing local content in the atomic energy sector.

## **1) Limitation of all nuclear development activities to peaceful purposes within the limits of legislations and international treaties and conventions:**

The Kingdom complies with the guidelines of the International Atomic Energy Agency relating to the establishment of peaceful atomic energy programs in states newly introducing such programs. The Kingdom attaches the utmost importance to matters relating to the non-proliferation of nuclear weapons and nuclear security, as evidenced by its support for international initiatives and conventions relating to the nonproliferation of nuclear and mass destruction weapons sponsored by the United Nations and the IAEA. The Kingdom also supports the international community's vision on nuclear disarmament. It also exerts great efforts at the local and international levels to promote nuclear security, combat nuclear terrorism, protect humanity from regional and international security threats resulting from the non-peaceful use of nuclear technology, and contributes positively and actively to activities relating to the promotion of nuclear security, and enhances its national infrastructure, in line with its vision to establish an ambitious national program for the peaceful uses of nuclear energy. The Kingdom's stance in this regard is to maintain a balance between states obligations towards nuclear security issues and states rights to peaceful use of atomic energy.

The Kingdom has acceded to the following international treaties and conventions for the peaceful use of nuclear energy:

- Treaty on the Non-Proliferation of Nuclear Weapons.
- Convention on Nuclear Safety.
- Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.
- Comprehensive Safeguards Agreement with the International Atomic Energy Agency.
- Convention on Early Notification of Nuclear Accidents.
- Convention on Assistance in the Event of Nuclear Accidents.
- International Convention for the Suppression of Acts of Nuclear Terrorism.
- Convention on the Physical Protection of Nuclear Material and Facilities and its Amendments.
- Commitment and political support for Security Council resolutions, in particular resolutions issued under Chapter VII of the United Nations Charter (including resolutions Nos. 1540, 1373 and 1977) on promotion of nuclear security and promotion of national efforts and capabilities relating to nuclear security.

The Kingdom participates in the promotion of the role of organizations and initiatives associated with nuclear security. The Kingdom has established a standing national committee to ensure full implementation of its national measures relating to the fulfilment of its obligations under the Comprehensive Safeguards Agreement with the IAEA.

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## **2) Full compliance with the principle of transparency in all regulatory and operational aspects:**

Commitment to transparency and adoption of all trust-building standards in all activities relating to the uses of atomic energy is mandated by the Kingdom's responsibilities and obligations towards its citizens, residents, and the international community. The Kingdom is taking all necessary measures to protect human life and the environment, in line with its obligations as an active member of the international community.

As part of its ambitious plan for the peaceful use of atomic energy, the Kingdom gives priority to the development and issuance of legislative and monitoring frameworks to regulate all atomic energy activities on its territory, ensuring a constructive relationship between the relevant government agencies and stakeholders, and the independence of the regulatory and monitoring agency.

- **Regulatory and monitoring agency:**

The Kingdom, by establishing an independent regulatory agency, seeks to ensure and protect transparency in the atomic energy sector in accordance with international standards through the issuance of nuclear and radiological safety legislations to cover all aspects related to atomic energy, including licensing, monitoring, detecting, nuclear safety and security, nuclear safeguards, civil liability for nuclear damage, and all relevant legislative and regulatory issues.



The regulatory and monitoring agency shall have the power to carry out its duties efficiently, which includes the identification of relevant requirements and conditions; issuance of instructions, regulations, guidelines, and licenses; inspection; and monitoring implementation of obligations.

- **Community outreach:**

The government of the Kingdom is committed to designating media channels through which it communicates with the public and provide them with transparent, accurate and easy-to-understand information on the outcome of the evaluation of atomic energy facilities. The outreach shall begin by making available the information contained in this Policy to all parties concerned with the introduction of atomic energy into the national energy mix.

### **3) Application of nuclear safety and security standards in nuclear and radiological facilities, in accordance with an independent regulatory and monitoring framework:**

The Kingdom focuses on the principle of “safety first” and seeks to compel all those involved in the atomic energy program to strictly comply with the applicable laws and regulations, in a manner consistent with the nuclear and radiological safety culture. The Kingdom also places great emphasis on nuclear security, through capacity building, introduction of means of detection, prevention and response necessary for nuclear security, and achieving an appropriate level of nuclear safety and security in all activities, in line with international standards.

- **Nuclear safety:**

The Kingdom is party to the Convention on Nuclear Safety and the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management. The Kingdom is committed to the highest standards of nuclear safety and the protection measures against radiation hazards at all nuclear facilities and at all stages of disposal of spent fuel and radioactive waste, with appropriate emergency plans in place. The Kingdom shall conduct periodic review and development of the National Radiation and Nuclear Emergency Response Plan, taking into consideration that the Kingdom is party to the Convention on Early Notification of a Nuclear Accident, and the Convention

on Assistance in the Event of Nuclear and Radiological Accidents.

- **Civil liability for nuclear damage:**

Being aware of the consequences of nuclear and radiological accidents despite their scarcity, the Kingdom attaches great importance to the regulation of civil liability issues arising from nuclear damage, in view of the Kingdom's accession to the Vienna Convention on Civil Liability for Nuclear Damage, as well as the Protocol on its amendment. The Kingdom is in the process of developing relevant legislations, in line with local laws and international obligations.

#### **4) Ensuring optimal use of the Kingdom's natural resources of nuclear material and applying the international best standards and practices for radioactive waste management:**

- **Exploitation of nuclear materials:**

The interest in the exploitation of national nuclear materials, especially uranium, stems from the need to diversify the Kingdom's economy in line with the Kingdom's Vision 2030, which places great importance to the role of mining and related industries in the diversification of income and developing local content, in addition to ensuring sustainable fuel supply to the National Atomic Energy Program. This will be pursued within a national framework for the exploitation of nuclear materials in accordance with the requirements set by the national regulatory and monitoring agency and relevant international obligations, in addition to the requirements of economic feasibility. The private sector and international companies will be afforded the opportunity to invest in a fair investment environment.

- **Radioactive waste management:**

The Kingdom maintains a radioactive waste management program consistent with the international standards and best practices for the management of radioactive waste generated by current radiological practices. The program includes two parallel activities: (a) the application of monitoring through instructions regulating the safe disposal of radioactive waste and



(b) designating a national site for the establishment radioactive waste management facilities.

- **Spent nuclear fuel:**

The Kingdom aims to adopt a policy that takes into account the appropriate options for the disposal of spent nuclear fuel, in accordance with the requirements of the various stages and projects of the National Atomic Energy Program, in accordance with strict controls that ensure satisfaction of safety, nuclear security, and nuclear safeguards standards.

## **5) Achievement of sustainability by developing local content in the atomic energy sector:**

The Kingdom endeavours to achieve sustainability requirements for its national nuclear program and provide the necessary requirements, including human and financial resources. The Kingdom seeks to establish a national program for sustainable atomic energy, to enhance its national capabilities in the peaceful use of atomic energy, and to increase its local content through building sustainable bilateral and multilateral partnerships with other states and specialized organizations, on principles of equality, cooperation and common interests, and through effective planning for the management of financial and human resources, in a manner that ensures sustainability and safe operation of all nuclear and radiological facilities consistent with the best international standards.

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## **Conclusion**

The Kingdom is determined to proceed with the expansion of the national energy mix in accordance with the Kingdom's Vision 2030 by introducing a civil atomic energy program to be one of the pillars of the Kingdom's strategic plan for national transformation towards sustainable development. The Kingdom affirms its intention to implement several ambitious initiatives in this regard and the peaceful nature of its national nuclear program. It also affirms its commitment to adopting strict standards of nuclear safety and security in the implementation of said initiatives to ensure the safety and security of human life and the environment locally and internationally. The Kingdom is keen to develop its national nuclear program within a framework of cooperation and international legality, and therefore became a party to relevant international conventions as well as multiple bilateral cooperation agreements on the peaceful uses of atomic energy to achieve transparency, credibility, and reliability of its nuclear program.





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Nuclear and Radiological Regulatory Commission

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