

Vietnam: New 2025 Atomic Energy Law – Safe, Secure and Sustainable Nuclear Development

In brief

On 27 June 2025, Vietnam's National Assembly enacted Law on Atomic Energy No. 94/2025/QH15 ("**Atomic Energy Law**"). It establishes a robust legal framework for the peaceful development and application of atomic energy.

The Atomic Energy Law applies to domestic and foreign organizations and individuals and international organizations engaged in atomic energy activities.

The Atomic Energy Law regulates the following key areas:

- Development of nuclear power plants and research nuclear reactors
- Licensing of nuclear-related activities
- Management of radioactive waste and spent nuclear fuel
- Nuclear and radiation safety and security
- Response to radiation and nuclear incidents
- Compensation mechanisms for radiation and nuclear-related damage

Effective from 1 January 2026, the Atomic Energy Law replaces Law on Atomic Energy No. 18/2008/QH12, strengthening nuclear governance and aligning with international standards and the guidelines of the International Atomic Energy Agency (IAEA), paving the way for upcoming projects such as Ninh Thuan's nuclear power plants.

In this issue

Key takeaways

1. **Key Conceptual Framework**
2. **Forms of Social Resources Mobilization**
3. **Development of Nuclear Power Plant and Research Nuclear Reactor**
4. **Notification, Licensing and Certificate**
5. **Radiation and Nuclear Safety and Security**
6. **Radiation and Nuclear damage compensation**

Key takeaways

We summarize the key points of the Atomic Energy Law below.

1. **Key Conceptual Framework**

- **Atomic energy activities (Hoạt động trong lĩnh vực năng lượng nguyên tử, in Vietnamese)** mean all activities including training, scientific research and technological development; design, construction, commissioning, operation and decommissioning of nuclear facilities and radiation facilities; exploration, mining, processing and closure of radioactive mineral mines; manufacturing, storage, use, transportation, transfer, trading, export and import of radioactive sources, radiation equipment, nuclear fuel, nuclear source materials, nuclear materials and nuclear equipment; managing radioactive waste, used radioactive sources, spent nuclear fuel and services supporting the application of atomic energy.
- **Nuclear fuel cycle (Chu trình nhiên liệu hạt nhân, in Vietnamese)** means nuclear energy generation activities, including mining and processing of uranium or thorium ores; uranium enrichment; nuclear fuel fabrication; fuel utilization in nuclear reactors; reprocessing of spent nuclear fuel; activities involving treatment, storage and disposal of radioactive waste and spent nuclear fuel generated from nuclear energy generation; and related research and development activities.
- **Nuclear energy (Năng lượng hạt nhân, in Vietnamese)** means energy released during nuclear transformations, including fission energy, fusion energy and energy from radioactive decay.

- **Radioactive substance (Chất phóng xạ, in Vietnamese)** means the substance that emits radiation because of radioactive decay of atomic nuclei and has a radioactive concentration or total radioactivity exceeding the regulated clearance levels.
- **Radioactive waste (Chất thải phóng xạ, in Vietnamese)** means waste containing radioactive substances or objects contaminated with radiation that must be discarded.
- **Radioactive source (Nguồn phóng xạ, in Vietnamese)** means radioactive substances fabricated for use, excluding nuclear materials.
- **Nuclear facilities (Cơ sở hạt nhân, in Vietnamese)** include nuclear power plants, facilities operating research nuclear reactors, facilities converting and enriching uranium, fabricating and reprocessing nuclear fuel, and facilities storing, treating and disposing spent nuclear fuel.
- **Radiation facilities (Cơ sở bức xạ, in Vietnamese)** include the facilities that operate particle accelerators, irradiation equipment using radioactive sources, generate and process radioactive substances, and treat, store and dispose of radioactive waste, used radioactive sources and spent nuclear fuel.
- **Nuclear power plant (Nhà máy điện hạt nhân, in Vietnamese)** means the facility that uses at least one nuclear reactor (i.e., the system designed and constructed to generate a self-sustaining and controlled chain fission reaction) to convert nuclear energy into electrical energy.
- **Research nuclear reactor (Lò phản ứng hạt nhân nghiên cứu, in Vietnamese)** means the reactor designed to generate neutrons and other radiation for research, development, radiation application, education and training.

2. Forms of Social Resources Mobilization

The Atomic Energy Law permits the following methods for attracting investment in atomic energy:

- Public-private partnership in the atomic energy sector
- Loans for investment in infrastructure, radiation and nuclear equipment
- Investment in the establishment of scientific and technological organizations, training institutions in the atomic energy sector, organizations conducting radiation works and organizations providing support services for the application of atomic energy
- Investment in cooperation with international atomic energy research organizations to establish shared laboratories
- Lease and use of assets for business, joint ventures and partnerships
- Deferred payment, installment purchase, leasing or borrowing of certain radiation equipment
- Domestic and foreign sponsorships and aids
- Socialization of public services

3. Development of Nuclear Power Plant and Research Nuclear Reactor

- **Pre-feasibility report for nuclear power plant construction:** The report shall include assessment on, among others, project necessity, feasibility and effectiveness, preliminary assessment of compatibility of the proposed construction site, radiation impacts and preliminary construction design.
- **Investment policy approval:** The decisions on the investment policy for these projects must comply with the public investment laws and relevant regulations, while the issuance of investment policy approval for these projects must comply with investment laws and relevant laws. Under regulations effective as of the date of this legal alert, the Prime Minister has authority to decide on investment policy and issuance of investment policy approval for a nuclear power plant.
- **Construction site approval:** The Prime Minister and the central-level atomic energy authority will consider and approve the construction site for the nuclear power plant and for the research nuclear reactor, respectively, before or together with the decision on investment and construction of the project. They will align with the master plans and ensure safety for local residents and environmental protection, national defense and security, and the capability to implement response plans.
- **Construction design appraisal:** The National Radiation and Nuclear Safety Agency (NRNSA) will appraise the contents related to radiation safety, nuclear safety and security under the construction designs of the nuclear power

plant and research nuclear reactor. The construction designs must comply with the construction regulations and some specific conditions applicable for preparing preliminary construction design, basic construction design and post-basic construction design as set out in the Atomic Energy Law.

- **Environmental impact assessment and feasibility study reports:** The investor of the project will (i) conduct an environmental impact assessment under environmental regulations, covering radiation and radioactive environmental impacts among others, and (ii) formulate a feasibility report under the construction regulations, including the plan to ensure nuclear fuel supply, radiation safety, nuclear safety and security, treatment and management of spent nuclear fuel and radioactive waste, environmental protection measures and human resource training plan.
- **Construction permit:** The construction of items relevant to the nuclear power plant's radiation safety, nuclear safety and nuclear security can only be carried out after the investor has been issued with a nuclear power plant construction permit. The central-level atomic energy authority will issue the construction permit based on certain conditions including, among others, (i) the compliance of the construction-phase safety analysis report, management system, construction plan, security plan and decommissioning plan with atomic energy, construction and other relevant regulations, and (ii) the compatibility of the construction design with the construction site.
- **Commissioning:** The commissioning will include two phases, including commissioning without fuel and with fuel. The central-level atomic energy authority will appraise and approve the commissioning program before non-fuel commissioning and issue the commissioning license before fuel commissioning. A commissioning license will be issued if the project meets certain conditions on safety analysis, technical completion, management systems, qualified personnel, operational procedures, emergency and security plans, and environmental licensing.
- **Operation:** The central-level atomic energy authority will issue an operation license for the operator, if it meets certain conditions on safety, resource, operational procedure, quality management system, decommissioning plan and financial assurance throughout the operation and decommissioning phases. The operator of the nuclear power plant must submit a dossier to apply for a power operation license after obtaining the operation license.
- **Safety and security oversight of nuclear power plant:** The NRNSA will oversee radiation safety, nuclear safety and nuclear security throughout all phases and have the right to require remedial actions, conduct inspections and suspend operations if safety or security risks are identified. Public security and national defense authorities will establish specialized forces and implement security measures for the nuclear power plant. The investor and operator will implement security measures throughout all phases, ensuring adequate resources and financial support for security, and closely coordinating with the authorities to safeguard security.

4. Notification, Licensing and Certificate

- **Notification and declaration:**
 - (i) Organizations or individuals conducting radiation work must notify the relevant radiation and nuclear safety agency.
 - (ii) Organizations or individuals conducting radiation work must declare to the radiation licensing authority within 10 working days from the processing of radioactive substances, radioactive waste with radioactivity concentration or total radioactivity exceeding the exemption levels for declaration and licensing.
 - (iii) Organizations or individuals must declare to the NRNSA within 30 days from having the plan to assign or transfer radioactive sources.
- **Radiation work license:** Organizations and individuals conducting radiation work must obtain a radiation work license (except for the exemption cases to be further regulated by the Government of Vietnam).
- **Certificates for atomic energy support services:** Organizations and individuals carrying out atomic energy support services must obtain a registration certificate and practice certificate, respectively.

5. Radiation and Nuclear Safety and Security

- The relevant atomic energy authorities will inspect and examine radiation and nuclear safety throughout the whole process — from construction to operation and termination of the project.
- Nuclear inspection activities within the territory of Vietnam will be conducted by the IAEA in cooperation with the NRNSA. The nuclear inspection will verify compliance with international treaties on nuclear weapon nonproliferation and nuclear inspection to which Vietnam is a signatory.

6. Radiation and Nuclear damage compensation

- **Radiation damage:** Radiation damage refers to losses to humans, property and the environment resulting from incidents involving the loss of radiation safety, including costs of remedying the consequences. The compensation for radiation damage complies with Vietnam's civil laws.
- **Nuclear damage:**
 - (i) Nuclear damage refers to losses to humans, property and the environment, including economic damage incurred due to efforts to remedy the consequences of nuclear incidents occurring within Vietnam's territory, islands, archipelagos, sea areas, subsoil and airspace.
 - (ii) The investor during the commissioning period or the operator is liable for nuclear damage even without fault (except in cases of war or terrorism). The operator is exempted from part or all of the compensation obligations if it is proved that damage was caused intentionally or negligently by the damaged party.
 - (iii) Responsibility for nuclear damage caused by stolen, lost, discarded or abandoned nuclear materials will be on the last operating organization authorized to possess these materials.
 - (iv) During the transport of nuclear materials, the sender is liable until the recipient takes possession — unless otherwise agreed.
 - (v) Total damage compensation is subject to laws and international treaties on civil liability to which Vietnam is a member.
 - (vi) The statute of limitations is 30 years for loss of life and 10 years for other claims, from the date the nuclear incident occurred.
- **Financial assurance:** The investor or operator of a nuclear facility must procure and maintain insurance or another form of financial assurance for nuclear damage compensation in the event of a nuclear incident.

If you would like to discuss the details of any specific issues and transactions in relation to atomic energy, please do not hesitate to contact us.

Hoang Anh Vu, Trainee Solicitor, has contributed to this legal update.

Contact Us



Oanh Nguyen
Managing Partner
oanh.nguyen@bakermckenzie.com



Ly Le
Senior Associate
thiyeenly.le@bakermckenzie.com

© 2025 Baker & McKenzie. **Ownership:** This site (Site) is a proprietary resource owned exclusively by Baker McKenzie (meaning Baker & McKenzie International and its member firms, including Baker & McKenzie LLP). Use of this site does not of itself create a contractual relationship, nor any attorney/client relationship, between Baker McKenzie and any person. **Non-reliance and exclusion:** All information on this Site is of general comment and for informational purposes only and may not reflect the most current legal and regulatory developments. All summaries of the laws, regulation and practice are subject to change. The information on this Site is not offered as legal or any other advice on any particular matter, whether it be legal, procedural or otherwise. It is not intended to be a substitute for reference to (and compliance with) the detailed provisions of applicable laws, rules, regulations or forms. Legal advice should always be sought before taking any action or refraining from taking any action based on any information provided in this Site. Baker McKenzie, the editors and the contributing authors do not guarantee the accuracy of the contents and expressly disclaim any and all liability to any person in respect of the consequences of anything done or permitted to be done or omitted to be done wholly or partly in reliance upon the whole or any part of the contents of this Site. **Attorney Advertising:** This Site may qualify as "Attorney Advertising" requiring notice in some jurisdictions. To the extent that this Site may qualify as Attorney Advertising, PRIOR RESULTS DO NOT GUARANTEE A SIMILAR OUTCOME. All rights reserved. The content of the this Site is protected under international copyright conventions. Reproduction of the content of this Site without express written authorization is strictly prohibited.

