

2017

ANNUAL REPORT

TABLE OF CONTENTS

- 3 Our mission, our vision and our values
- 4 Message from the Chairman and the Chief Executive Officer
- 6 Front end of the nuclear fuel cycle
- 8 Back end of the nuclear fuel cycle
- 10 Financial management
- 12 Management and supervisory bodies
- 13 Management report
- 16 Annual accounts
- 18 Statutory auditor's report on the annual accounts
- 20 Balance sheet
- 22 Income statement
- 24 Additional notes
- 34 Details of the nuclear fuel cycle

OUR MISSION

Synatom's activities have two main focuses.

The nuclear fuel cycle

Synatom is responsible for activities upstream of the nuclear fuel cycle (the front end) until the enriched uranium is supplied to the assembly production plant.

From this point on, the operator, so in this case ELECTRABEL, manages the production and use of fuel assemblies in the reactor core and their transmission to the spent fuel pool.

Synatom then takes charge of the process downstream of the fuel cycle (the back end), so the management of the spent fuel up to the time when it is passed on to the Belgian Agency for Radioactive Waste and Enriched Fissile Materials (ONDRAF/NIRAS) on the site of ONDRAF/NIRAS's subsidiary BELGOPROCESS in Dessel. These days, this by and large means interim storage on the Doel and Tihange sites.

Nuclear provisions

Synatom establishes nuclear provisions, i.e. sums of money to eventually cover the expenses of nuclear power plant decommissioning and the management of spent fuel.

Synatom also takes care of public service obligations, seeing to the annual collection of the special contribution for nuclear activities, or nuclear tax, on behalf of the Belgian State.



OUR VISION

Synatom takes a long view.

Synatom firmly believes that nuclear energy remains a key part of the energy mix.

Be it in Belgium or elsewhere in Europe or the world, nuclear energy has a role to play in the economic developments of the future, which must seek to make progress towards steadily reducing greenhouse gas emissions.

As such, Synatom is determined to offer the best possible price for the long-term supply of fuel.

In Synatom's view, we can learn a lot from the decommissioning of nuclear facilities around the world, as they facilitate accurate judgements on the financial resources needed to eventually decommission Belgium's nuclear power plants.

Synatom expects the ongoing research on radioactive waste management to lead to significant technological advances.

OUR VALUES

In carrying out all its activities, Synatom abides by four inextricably linked values:

Exactingness : Synatom adopts the highest possible standards. It applies the best practices and constantly develops pragmatic, cost-justified solutions.

Commitment : Synatom is committed to guaranteeing a safe supply of nuclear fuel as well as an adapted management of spent fuel. Synatom manages financial provisions in a spirit of complete transparency and exercising excellent judgement.

Proactiveness and responsiveness : Synatom foresees developments and responds quickly and judiciously.

Openness : Synatom invests in research and development. It develops trust-based relationships with all of its partners.

MESSAGE FROM THE CHAIRMAN AND THE CHIEF EXECUTIVE OFFICER

SYNATOM : FACILITATING THE ENERGY TRANSITION

Most countries in the world have committed to an energy transition that will shape the first half of the 21st century. The 2015 COP 21 in Paris marked a turning point. Throughout the world, awareness of the climate's importance, its conservation and the urgent need to act has grown and accelerated. This greater awareness has resulted in the adoption of ambitious global targets for implementation at national level.

In concrete terms, the 2020-2050 energy transition aims to transform our current energy system, both globally and nationally, with a view to reducing its environmental impact. Slashing CO₂ emissions and fighting climate change are now the top priorities.

As such, every country will need to radically alter its energy mix in the coming decades. This paradigm shift will affect the electricity mix too. Nuclear energy accounts for some 50% of electricity generated in Belgium, and so has a vital role to play in achieving our climate targets, among other things. It would be difficult to replace it at present. Synatom must therefore be capable of rising to the challenges of the future by keeping Belgium's nuclear power stations supplied with high-quality fuel and striving to ensure safe long-term waste management.

The energy transition of the 21st century has begun

The energy sector needs to rethink the way it does things. Generation and consumption patterns must undergo significant structural changes. The energy transition we hope to achieve will not come about through technical developments on the generation side alone. It must also be driven by adjustments to lifestyles and social practices, as these are the factors that shape energy consumption.

No matter what political decisions are made, the energy transition cannot be accomplished without far-reaching changes in habits and behaviours.

We have embarked on an extremely long, complex process. There is nothing straightforward about it, and the road ahead will not be an easy one. Taking electricity generation as an example, contrary to what many people think, greener generation is not 'simply' a question of increasing the share of renewables in the energy mix and reducing the share of other energy sources (coal, oil, natural gas and nuclear). An energy transition is an all-pervading issue that throws up multiple challenges and affects all sectors of the economy and society.

What form will Belgium's energy transition take ?

To get the ball rolling on the energy transition, the Belgian authorities have drawn up a Federal Energy Strategy for 2030-2050. The discussions surrounding this document are critical, as it will, after all, shape the country's future for the decades to come. We must realise that every country needs to design its own energy transition, addressing all of its own specific characteristics. There is no perfect, 'one-size-fits-all' energy transition. There is no room for ideological decisions either.

Before a final decision is made, would it not be wise to re-examine the conditions for implementation, determine the exact scope of the levers to be applied, quantify the required financial investments, assess the risks, and so on?

There are so many factors to consider.

The electricity mix of the future

Belgium's energy transition will also be accompanied by a change in the electricity mix. Under the Act of January 31, 2003, this will entail the phase-out of nuclear power stations by 2025. It seems that the time constraints associated with the phase-out have been completely forgotten or ignored, yet these very constraints, with long time constants, must be absolutely factored into any political decision.

After all, energy systems are subject to considerable inertia. It takes a long time to build new infrastructure, be it infrastructure for renewables or infrastructure for electricity transmission and distribution. In practice, such projects take around seven years on average. It is not the construction of the infrastructure that takes time, but rather the administrative procedures that precede it.

This alone is enough to indicate that a premature nuclear phase-out would be a mistake. Many other factors point to the same conclusion.

Since we need to decrease or eliminate fossil fuel use, is it really reasonable to suggest building new gas-fired power stations ? And who would build them ? Such projects require substantial investment and their profitability is extremely uncertain simply because Belgium does not currently have a mechanism for remunerating generation capacity.

Should we then depend on massive imports of electricity generated by nuclear power stations in France or wind turbines and coal-fired power stations in Germany ? These questions deserve at least some consideration. The Swiss and French examples provide some interesting food for thought. In May 2017, the Swiss population voted in favour of a new energy policy. The policy does not provide for the construction of new nuclear power stations, but authorises existing nuclear plants to continue operating as long as they meet the safety criteria. In November 2017, the French Minister for the Ecological and Inclusive Transition, Nicolas Hulot, indefinitely postponed the reduction of nuclear energy's share in the energy mix from 75% to 50% for two clear reasons: the initial schedule was untenable and the drastic reduction of fossil fuel use was considered to take priority.

Synatom's analysis

Synatom will be directly affected by the decisions made during the implementation of the Inter-federal Energy Pact. And in view of the current state of affairs, Synatom wonders whether the chosen schedule may have been misjudged.

Too soon for Belgium to go without nuclear power stations !

It makes no sense to shut down Belgium's seven nuclear reactors by 2025. If the country wants to hold onto a modicum of energy independence and be able to cope with the switchover of energy uses from other sources to electricity (electric cars being just one example), it needs to plan ahead and set up alternative means of generation. This has not been done so far. As such, nuclear power stations must keep their place in the energy mix of the future.

Too long to determine the preferred option for disposing of radioactive waste !

Management of spent nuclear fuel is one of Synatom's key responsibilities from both a technical and financial point of view. Belgium has achieved international recognition for its expertise in researching deep clay layer disposal. The Belgian Agency for Management of Radioactive Waste and Enriched Fissile Materials (ONDRAF/NIRAS) and the Belgian Nuclear Research Centre (SCK·CEN) have been carrying out advanced research in the HADES underground laboratory in Mol for almost 40 years now. Their results are conclusive: clay is a suitable 'host rock' for safe final storage. And yet it appears that no steps are being taken towards developing the appropriate storage infrastructure.

Worse still, recent decisions raise fears that it may be decades before legislation is adopted on a definitive solution. Is it really wise to wait so long ? Synatom does not think so. Could we not follow in the footsteps of Finland and France? Finland is currently building storage facilities and is expecting to make the first deliveries of waste - in the early 2020s, while France plans to start building its CIGEO deep-clay-layer storage facilities in 2022.

It is now up to all the stakeholders to determine the right pace and adopt the right measures to meet the targets that will be set.

Didier Engels, Chairman

THE FRONT END OF THE NUCLEAR FUEL CYCLE

The front end of the nuclear fuel cycle consists of mining uranium and processing it in various ways so that it can be used in a nuclear reactor.

In Belgium, Synatom is the company responsible for purchasing uranium concentrate (yellow cake) and signing contracts with companies specialising in uranium conversion and enrichment. Once these three activities – namely concentration, conversion and enrichment – have been performed, Synatom supplies the fuel assembly manufacturer with the quantities of enriched uranium required by ENGIE Electrabel.

A tried and tested strategy

Experience has proven the worth of Synatom's supply policy, which is based on three fundamental principles:

- Geographic and commercial diversification of supply sources at each stage of the fuel cycle ;
- Contractual security through negotiation of long-term supply contracts ;
- Inventory management.

This strategy is set to evolve as the situation changes, and was already adjusted in 2017 to reflect the prospect of the legally scheduled closure of Belgium's seven nuclear reactors. The first key date will be the definitive shutdown of Doel 3, which is due to take place on October 1, 2022, followed by the shutdown of Tihange 2 on June 1, 2023. The remaining five reactors will be shut down over the course of 2025.

These timelines are broadly covered by our long-term contracts. However, spot market purchases may be required depending on the specific needs of the nuclear units.

It is important to remember that around two years pass between the purchase of the uranium concentrate and the loading of the fuel assembly into the core.

At the same time, the management of the natural and enriched uranium inventory is being monitored very closely. Ideally, the inventory will be practically zero when all the reactors are definitively shut down.

The behaviour of Belgium's seven nuclear reactors

The behaviour of Belgium's nuclear generation facilities is another key parameter to bear in mind. The refuelling plans for Belgium's various reactors are prepared according to very specific rules that take account of such factors as the amount of time the assemblies spend in the reactor core and the length of planned shutdowns for overhauls and refuelling.

Alongside these known factors, the refuelling plans have to be able to cope with any unforeseen event that could immobilise a reactor for any length of time.

In 2017, two events affected the load factors of Belgium's nuclear power stations.

The first of these, namely the shutdown of Tihange 1 for overhaul, had of course been planned, but resulted in the reactor being offline for longer than initially expected. The shutdown, which began in September 2016 and lasted until May 2017, allowed substantial work to be carried out with a view to extending Tihange 1's operation until 2025.

The second event, which was unplanned, occurred in early October 2017 when Doel 3 had undergone a planned shutdown for overhaul. During the shutdown, it was discovered that significant civil engineering work needed to be done on safety related equipment of the facility. The reactor is set to be unavailable for several months.

These two types of event directly affect the management of Synatom's inventory.

The state of the markets in 2017

Uranium concentrates

Once mined, uranium ore is processed, most often on the site of the mine itself, to make a concentrate known as « **yellow cake** », which contains around 750 kg of uranium oxide per tonne.

The global market continued to stagnate in 2017, with spot market prices hitting a record low. In response to the unrelenting contraction (since Fukushima) in demand, which has been accompanied by very low prices, the world's main uranium producers (Kazakhstan, Canada, Niger) have significantly reduced the quantities they are mining in a bid to drastically realign supply with demand.

Synatom's role in supplying Belgium's nuclear reactors is critical even though on a worldwide scale, its uranium purchases (1,000 tonnes a year) represent less than 2% of global consumption, which totals 62,000 tonnes.

Synatom mainly ensures supply through long-term contracts. It makes very limited use of the spot market, purchasing there only when specific adjustments are required.

Uranium conversion

After being refined, the uranium is processed further to make **uranium hexafluoride** (UF₆), a necessary step for enrichment.

This stage of conversion is conducted by a handful of specialist companies worldwide.

Prices on both the conversion and enrichment markets are extremely low at present.

Enrichment

Natural uranium has two main isotopes: U238 (99.3%) and U235 (0.7%).

Only the isotope U235 is fissile. Enrichment aims to increase the proportion of U235 from 3 to 5% to achieve a proportion compatible with use in nuclear reactors. While enrichment is currently carried out by ultracentrifugation, a new laser enrichment technology is being developed and work could begin on building the first plant to use the new technology in the early 2020s.

The enrichment market is essentially in the hands of three main players: Areva (France), which became ORANO Cycle in early 2018; the Urenco consortium, which has activities in the UK, the Netherlands, Germany and the United States; and Tenex (Russia).

Heightened societal awareness

Over the years, Synatom has noticed that drafting contracts is becoming increasingly complex at both the front and back end of the nuclear fuel cycle.

Heightened societal awareness is also being reflected in contractual clauses regarding ethics and respect for the environment. In this connection, international associations like the International Atomic Energy Agency, the Nuclear Energy Agency of the OECD and the World Nuclear Association have adopted specific rules for the operators of uranium mines, for instance, and have set up external audits.

Synatom highly values these societal clauses in the negotiation of its contracts.

Ranger open-pit mine in Australia during operation

The same mine undergoing restoration

Synatom highly values these societal clauses in the negotiation of its contracts.

THE BACK END OF THE NUCLEAR FUEL CYCLE

The FREED process,
the first of its kind
in the world, is now
operational.

As the owner of the material contained in the fuel assemblies, Synatom has a duty for ensuring its safe and responsible management in the long term.

After several years of use in a reactor core, a nuclear fuel assembly is permanently discharged and moved to a spent fuel pool adjoining the reactor building, where it will remain for three to ten years. It will then be transferred to a centralised interim storage facility.

At Tihange, interim storage takes place under water, while at Doel, interim storage takes place in special dry containers.

Specialist staff at the respective nuclear power stations manage all of this on Synatom's behalf.

A busy year...

2017 was a year of intense activity in terms of both the on-site storage of spent fuel assemblies and the progress made on the procurement of new casks. It also saw the repatriation of the last waste from reprocessing.

Return of waste from reprocessing

The contracts concluded with Orano Cycle in the 1970s for the reprocessing of spent fuel are due to expire soon. Reprocessing has allowed almost 96% of the reusable materials to be recovered from spent fuel for use in new assemblies. The remaining 4% is long-lived medium- or high-activity waste and must be returned to Belgium.

All waste from reprocessing has already been returned to Belgium and stored in a special building on Belgoprocess's Dessel site, apart from one last type of long-lived medium-activity vitrified waste, which is encapsulated in stainless steel canisters.

An initial transfer of these canisters took place in August 2017. An operation like this requires long, careful preparation. The procedure begins with the reception of the canisters on the La Hague site, followed by the verification of the acceptance criteria by the Belgian Agency for Management of Radioactive Waste and Enriched Fissile Materials (ONDRAF/NIRAS), and ends with the organisation of the transfer, which must be approved by the Federal Agency for Nuclear Control (AFCN/ FANC).

A second and final transfer will be organised in the course of 2018, putting an end to this long-standing reprocessing contract.

On-site transfers

At Tihange

Spent fuel assemblies are transferred between the three spent fuel pools and the central storage building by shuttle cask, a special type of cask that enables safe on-site transportation of fuel. 2017 saw Tihange nuclear power station's specialist teams carry out some 21 transfers of spent fuel.

A second shuttle cask has been ordered from the American company HOLTEC. The safety file for this special piece of equipment is currently being reviewed in depth by the authorities

At Doel

At Doel, dry casks are used for the interim storage of spent fuel assemblies. These containers are loaded directly into the units' spent fuel pool, and are later transferred to the site's centralised storage facility. They can be used for both transportation and storage.

New interim storage buildings

New storage capacity will eventually be needed at the Doel and Tihange sites. The design files for the new storage buildings are currently being finalised with a view to submitting the permit application in the course of 2018. It is important to note that dry storage was the option chosen for both sites.

Dry storage casks

As you will recall, Synatom signed in 2016 two major contracts for the supply of several dozen casks for the period 2020-2030, which will keep the sites supplied with casks until the end of their lives.

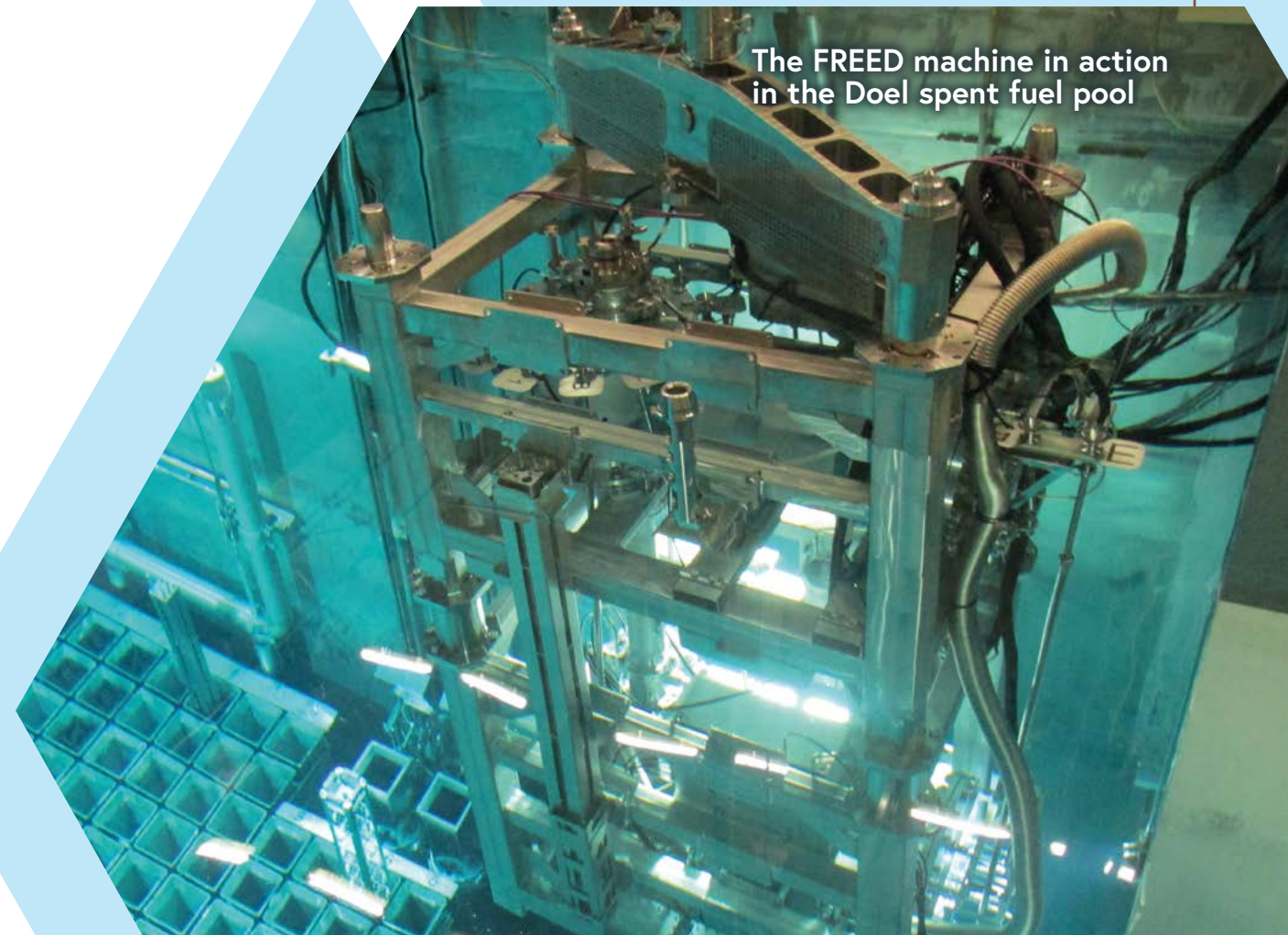
The suppliers continued to work on their respective designs in 2017. The safety files for transportation and storage are being prepared at the same time. Once these files have been approved by the safety authorities, the actual manufacturing process can begin.

Depending on the chosen design, each cask will be able to hold between 21 and 32 spent fuel assemblies.

A world first

The spent fuel pools also house damaged assemblies that cannot be loaded into a cask in their current state. At the request of Synatom, an innovative process known as FREED was developed by Framatome Germany and certified by the Belgian safety authorities. It was tested successfully in the Doel spent fuel pool and is now operational. The process entails removing the damaged rod from the fuel assembly and placing it in a special sheath, which is then dried and welded to seal it off completely. All of these activities are performed remotely, under water. This new process links in with the emptying of the nuclear units' spent fuel pools, which is a necessary step in the units' decommissioning.

The FREED machine in action
in the Doel spent fuel pool



FINANCIAL MANAGEMENT

Financial management is paramount for Synatom. It is relevant not only for present activities, but also for future activities, as they take place over several decades.

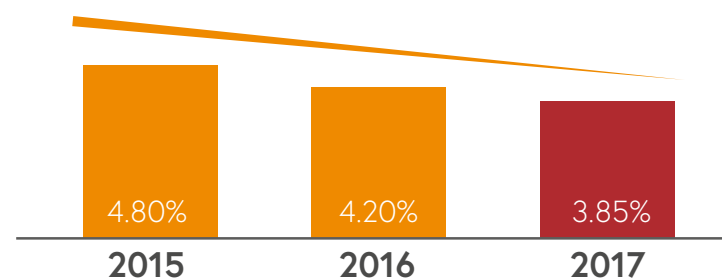
Synatom's financial activities cover all the contracts concluded for the front and back end of the nuclear fuel cycle. Moreover, Synatom is responsible for managing the amounts laid aside as nuclear provisions. When the time comes, these provisions will be needed for the decommissioning of the Doel and Tihange nuclear reactors and the management of the spent fuel assemblies. Synatom also collects the special contribution on behalf of the Belgian State.

Focus on the nuclear provisions

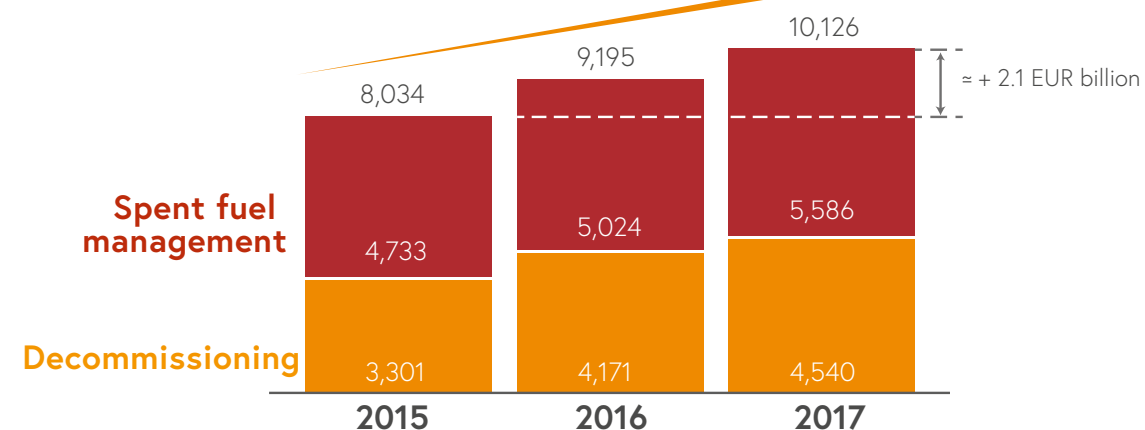
The nuclear provisions are calculated on the basis of a discount rate approved by the Nuclear provisions committee. When returns on financial investments are low, the discount rate decreases. This has been the trend in recent years, and the situation seems unlikely to change.

A significant increase in the provisions, linked to the review of the discount rate, was initiated in 2016 and will be spread over a three-year period. In 2017, the reserves for decommissioning and spent fuel management totalled €10.1 billion, up €0.9 billion from 2016 and €2.1 billion from 2015.

Decrease in discount rates



Change in provisions in EUR million



Are the provisions large enough ?

When people try to determine whether the provisions are large enough, they do so on the basis of their own analysis and by comparing Belgium's provisions with those of another country. But things are not as simple as they may seem. First of all, it is important to know the values being taken into account: are they expressed in current euros, overnight euros or discounted euros ? It is then necessary to determine what is exactly covered by these provisions; here, too, there may be considerable differences. For Belgium, Synatom establishes provisions in accordance with the instructions of the Nuclear provisions committee, which relies, among other things, on the expertise of the Belgian Agency for Management of Radioactive Waste and Enriched Fissile Materials (ONDRAF/NIRAS).

In this tense context, Synatom completed in 2017 several transactions aimed at aligning its investment strategy with the realities of the market. Most notably, it was given the green light by the Nuclear provisions committee to invest certain amounts in shares, given the extremely low returns on the bond market. To that end, Synatom has engaged the services of a company specialising in dynamic portfolio management, which can take action to hedge market risks at any time.

In addition, the loan agreements with ENGIE Electrabel were revised to add in new rules.

New ONDRAF/NIRAS tariffs for nuclear waste management

ONDRAF/NIRAS is preparing new tariffs for nuclear waste management for 2018. Synatom will have to assess the impact of these new tariffs defined for the waste from reprocessing currently stored at Belgoprocess, the spent fuel stored on the Doel and Tihange sites and the waste that will be transferred to ONDRAF/NIRAS in the coming decades.

Special contribution

The special contribution collected by Synatom, also known as the 'nuclear tax', now only applies to Doel 3, Doel 4, Tihange 2 and Tihange 3 (other rules have been laid down for the other units and are managed directly by ENGIE Electrabel). The law passed in late 2016 provides that the special contribution will take account of the profits of the nuclear power stations and will set at a minimum net amount of €150 million for the next three years. In view of the extremely low electricity prices in 2017, the special contribution due by the nuclear operators for the financial year 2016 totalled €163.8 million.

We must make decisions in order to protect future generations while ensuring that we do not unnecessarily penalise our generation.

MANAGEMENT AND SUPERVISORY BODIES

BOARD OF DIRECTORS

Messrs	Philippe VAN TROEYE (1)	
	Didier ENGELS (2)	Chairmen
	Robert LECLÈRE	Chief Executive Officer
	Jan BARTAK	
	Marc BEYENS	
	René DELPORTE	
	Thierry SAEGEMAN	
	Dimitri STROOBANTS	Directors

(1) Until September 21, 2017
(2) From September 21, 2017

GOVERNMENT REPRESENTATIVES

Messrs	Yves DE GRAEVE
	Martial PARDOEN

AUDITOR

DELOITTE Réviseurs d'Entreprises, SC s.f.d. SCRL, represented by Mr Laurent Boxus

ACKNOWLEDGEMENTS

The Board of directors would like to thank the company's employees for the dedication and professionalism they have show in carrying out their duties.

MANAGEMENT REPORT

Ladies and Gentlemen,

In accordance with the relevant legal and statutory requirements, we are honoured to present our company's management report for its forty-eighth financial year and to submit for your approval the annual accounts for the year ended December 31, 2017.

General

During the financial year under review, 40,183 GWh of nuclear power was generated in Belgium.

In 2017, Belgium's nuclear power stations operated at an average load factor of 80%, compared with 83% in 2016.

This drop in output can be ascribed to the prolonged shutdown of Tihange 1, which lasted from September 2016 to May 2017, and the planned shutdown of that same unit from mid-September to late November 2017 for work to extend its operating life. Finally, Doel 3 was also shut down from late September 2017 for extensive civil engineering work.

Shareholder structure, capital and mission

Synatom has a capital of €49.6 million, of which around 25% is paid-up capital, and is represented by two million registered shares. All of those shares are held by Electrabel, except one specific share which is held by the Belgian State, giving the latter certain special rights in the Board of Directors and in the Synatom General Meeting.

Synatom's core business is to supply Belgian nuclear power plants with enriched uranium, manage the back-end of the nuclear fuel cycle and manage the provisions covering both the decommissioning of nuclear power plants and the management of irradiated fissile material in those power plants.

Technical and commercial activities

Nuclear fuel supply

In view of the political decision to permanently shut down Belgium's nuclear power stations from 2022, Synatom revised its supply policy for the coming years using tried-and-tested criteria that have proven their worth in the past: source diversification and the retention of strategic stock in line with the recommendations of the EURATOM Supply Agency.

Seven years after the Fukushima disaster of March 11, 2011, its repercussions are still being felt on the market. Japan's nuclear facilities have been shut down temporarily, though five units have resumed operation since 2015, and several nuclear power stations have been closed permanently in Germany. At the same time, new construction projects have been postponed. As a result, supply is still outstripping demand for both natural uranium and enrichment services. This situation will not change in the short term, even though the two largest producers of natural uranium have decided to substantially reduce their natural uranium production and the only producer of UF₆ in the United States suspended production for an indefinite period at the end of the year.

Uranium concentrate prices continued to fall steadily throughout 2017, recovering slightly towards the end of the year. They dropped from USD 24.50 per pound in late January to USD 19.95 USD in late May, hovered between USD 20 and USD 21 per pound for five months and ended the year at USD 23.75 per pound. The long-term price decreased from USD 35 per pound to USD 31 per pound.

Both long-term and spot prices for enrichment services fell further, in a continuation of the downward trend that began in 2014. The spot price for enrichment services decreased from USD 47 per SWU at the start of the year to USD 38 per SWU at the year's end, while the long-term price fell from USD 53 per SWU to USD 45 per SWU.

Synatom's supply portfolio and strategic stock guarantee that it will be able to supply the fissile material required to operate the power plants in the coming years.

Management of spent fuel and waste

The safe and responsible management of the storage of spent fuel elements on the sites of Doel and Tihange nuclear power stations is one of Synatom's key tasks.

In 2017, two dry storage containers were loaded and put into interim storage at Doel, bringing the number of containers in storage there to 100.

At Tihange, an exceptional 21 transfers of spent fuel were made between the spent fuel pools and the centralised underwater storage facility. Nine transfers will be made in 2018.

The authorities are currently reviewing the safety dossier for the new Tihange spent fuel shuttle cask, known as HiSTAR 120, which is intended to act as an alternative to the current shuttle container, TN17T.

To allow the continued storage of spent fuel at Doel and Tihange, a new dry storage building is currently being designed for each of the two sites. At the same time, Synatom's new purchasing strategy for storage casks for these new facilities, known as 'post-2020 casks', entered an active phase with the drafting of the safety dossiers. This will be followed by approval from the authorities and the manufacture of the new casks.

The project to encapsulate non-watertight spent fuel rods in the Doel 1 and 2 pool passed an important milestone in 2017: the Belgian safety authorities certified this first-of-a-kind technology, and the repair and encapsulation campaign for the Doel pool began.

The first return of vitrified medium-level waste from the spent fuel reprocessing campaigns at La Hague (France) took place in August 2017.

The second and last return will take place in 2018. This last transport will put an end to our activities to repatriate waste from fuel reprocessing at La Hague.

Research and development

Research and development work on geological disposal is still being carried out by ONDRAF/NIRAS and financed by Synatom and the producers of radioactive waste.

The Praclay heating experiment at Mol, which simulates the behaviour of heat-emitting waste in Boom clay, has now been running for almost three years.

On another note, ONDRAF/NIRAS and the main producers of radioactive waste are preparing for the implementation, in early 2019, of the Royal Decree of April 25, 2014 amending the financing method for waste management by ONDRAF/NIRAS. At the same time, ONDRAF/NIRAS is re-evaluating the cost of waste management.

Management of nuclear provisions

Constitution of nuclear provisions

In accordance with the opinion issued by the Nuclear provisions committee (NPC) on December 12, 2016, the discount rate for the provisions was revised down to 3.85% at December 31, 2017.

Consequently, the nuclear provisions in Synatom's company financial statements totalled €10.1 billion at December 31, 2017 (compared with €9.2 billion at December 31, 2016). This increase was primarily due to the revision of the discount rate against a backdrop of falling interest rates.

As a reminder, in 2016 the NPC asked Synatom to revise down its discount rate over three years (to 4.2% in 2016, 3.85% in 2017 and 3.50% in 2018).

The impact of this gradual decrease in the discount rate can be estimated at €1.7 billion, €1.2 billion of which has been included in the financial statements for financial years 2016 and 2017.

Special contribution

Since 2008, Synatom has been tasked with supporting the State in collecting the special contribution, more commonly known as the nuclear tax.

The Royal Decree of October 15, 2017 set the contribution to be paid by nuclear operators in 2017 at €163.8 million.

Derivative financial instruments and hedging policy

Synatom applies the ENGIE Group policy on the use of derivative financial instruments primarily to manage its exposure to exchange rate fluctuations for supplies in US dollars.

In this connection, all supply contracts involving commitments of over USD 1 million have been covered at a rate of 97.5% of the estimated prices, for the minimum quantities specified in the contracts. This currently corresponds to a coverage amount of USD 409.7 million.

Disputes

There are no disputes in progress.

Board of Directors

The directorships of Messrs Marc Beyens, Robert Leclère and Dimitri Stroobants are due to expire at the end of the 2018 statutory General Meeting. The General Meeting will need to approve the appointment of Mr Didier Engels, who was temporarily appointed by the Board of Directors to replace Mr Philippe Van Troeye after the latter resigned his directorship in the course of 2017.

Discharge

In accordance with Article 554 of the Companies Code, we ask the General Meeting to discharge the Board and the Statutory Auditor within the limits set down by law.

ANNUAL ACCOUNTS

Below, we comment on some important items included in the balance sheet and the income statement.

Balance sheet

Financial fixed assets – Amounts receivable from affiliated companies

Since January 1, 2017, two ten-year loans have been granted to ELECTRABEL: one in consideration of the provisions for the management of irradiated fissile material, and one in consideration of the provisions for decommissioning. These loans replace the trade receivables that were previously listed under " Long-term receivables ".

Long-term receivables – Other receivables

Since 2005, a part of the provisions has been invested outside the nuclear operator, in line with the Act of April 11, 2003 on nuclear provisions. We have an outstanding loan of €454 million made to Elia, €40 million in commercial papers issued by ORES and a loan of €17.6 million made to Sibelga.

Receivables within one year – Trade debtors

This item covers current trade receivables.

Receivables within one year – Other receivables

At the end of 2017, this item primarily consisted of the special contribution to be paid by Electrabel and EDF Luminus in respect of 2017.

This item also includes the share of the loan to SIBELGA due to be paid back in 2017, corresponding to an amount of €4.3 million.

Deposits, securities and bonds

Pursuant to the legislation governing nuclear provisions, this item covers the amounts needed to finance the expenditure relating to the decommissioning and management of irradiated fissile material for the next three years of operation as well as a part of the provision funds that must be invested outside the nuclear operator.

Provisions and deferred taxes

These provisions are intended to cover the cost of managing irradiated fissile material and decommissioning of nuclear power plants in accordance with the legislation governing nuclear provisions.

Amounts payable within one year – Other debts

As in 2016, this item primarily comprises the advance paid by ENGIE Treasury Management to finance the amount paid to the State budget in respect of the special contribution for 2017.

Results

Turnover

Turnover consists of the contributions for the supply of fissile material, which amount to €315 million.

Supplies and goods

This heading covers the purchases of natural uranium as well as conversion and enrichment services.

Services and other goods

This item mainly covers the costs incurred during the year for the management of spent fuel (€58.7 million) and costs linked to the ONDRAF/NIRAS R&D programme (€14.7 million).

Non-recurring income and expenses

The amounts shown under this item are the result of the triennial review of nuclear provisions and, in particular, of the decrease in the discount rate from 4.2% to 3.85% in 2017. The non-recurring operating expenses reflect additional amounts allocated for nuclear provisions, while the non-recurring operating income corresponds to the additional provisions invoiced to nuclear operators. These two items total the same amount.

Financial income

This item covers the interest both on loans and long-term receivables and on investments relating to the Act on nuclear provisions.

It also includes €21 million in non-recurring financial income resulting from a capital gain realised upon the reorganisation of some of our short-term investments.

Profit

The annual accounts for the 2017 financial year show a profit of €543,125.95, compared with €549,010.41 in 2016.

Subsequent events and outlook

The hypotheses on which the established provisions are based factor in all regulatory requirements either already in existence or scheduled to be implemented in Europe, nationally or regionally. If more legislation is implemented in the future, the estimated costs behind the calculations might be subject to change.

In this connection, at its meeting of February 9, 2018 the Board of Directors of ONDRAF/NIRAS proposed adopting deep geological disposal, rather than long-term storage, as the national policy for managing high-activity and/or long-lived waste.

A final site will only be chosen following a multi-stage process that will take place over several decades and involve several intermediate steps, such as selecting the host rock and setting out procedures for reversibility, retrievability and monitoring.

The Belgian government is still to approve this proposed national policy.

It is proposed to the General Meeting of May 9, 2018, deliberating on the accounts for financial year 2017, that the amount of €27,156.00 be appropriated to the statutory reserve and a dividend of €1.03 per fully paid-up share be paid out, giving a total amount of €516,545.00. The remaining balance for the financial year (-€575.05) is to be deducted from the profit to be carried forward, bringing it to €10,818.09.

Unless there is a major unforeseeable event, the profit for the current financial year should enable Synatom to pay a similar dividend for the 2018 financial year in 2019.

We do not anticipate any other significant circumstances that could substantially influence the future development of the company.

Brussels, March 30, 2018.

STATUTORY AUDITOR'S REPORT ON THE ANNUAL ACCOUNTS

Statutory auditor's report to the shareholders' meeting of Société Belge des Combustibles Nucléaires Synatom SA for the year ended 31 December 2017

In the context of the statutory audit of the annual accounts of Société Belge des Combustibles Nucléaires Synatom SA (the "company"), we hereby submit our statutory audit report. This report includes our report on the annual accounts together with our report on other legal and regulatory requirements. These reports are one and indivisible.

We were appointed in our capacity as statutory auditor by the shareholders' meeting of 11 May 2016, in accordance with the proposal of the board of directors. Our mandate will expire on the date of the shareholders' meeting approving the annual accounts for the year ending 31 December 2018. We have performed the statutory audit of the annual accounts of Société Belge des Combustibles Nucléaires Synatom SA for 20 subsequent years.

Report on the audit of the financial statements

Unqualified opinion

We have audited the annual accounts of the company, which comprises the balance sheet as at 31 December 2017 and the income statement for the year then ended, as well as the explanatory notes. The annual accounts show total assets of 10 406 211 (000) EUR and the income statement shows a profit for the year ended of 543 (000) EUR.

In our opinion, the annual accounts give a true and fair view of the company's net equity and financial position as of 31 December 2017 and of its results for the year then ended, in accordance with the financial reporting framework applicable in Belgium.

Basis for the unqualified opinion

We conducted our audit in accordance with International Standards on Auditing (ISA). Our responsibilities under those standards are further described in the "Responsibilities of the statutory auditor for the audit of the annual accounts" section of our report. We have complied with all ethical requirements relevant to the statutory audit of the annual accounts in Belgium, including those regarding independence.

We have obtained from the board of directors and the company's officials the explanations and information necessary for performing our audit.

We believe that the audit evidence obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of the board of directors for the annual accounts

The board of directors is responsible for the preparation and fair presentation of the annual accounts in accordance with the financial reporting framework applicable in Belgium and for such internal control as the board of directors determines is necessary to enable the preparation of the annual accounts that are free from material misstatement, whether due to fraud or error.

In preparing the annual accounts, the board of directors is responsible for assessing the company's ability to continue as a going concern, disclosing, as applicable, matters to be considered for going concern and using the going concern basis of accounting unless the board of directors either intends to liquidate the company or to cease operations, or has no realistic alternative but to do so.

Responsibilities of the statutory auditor for the audit of the annual accounts

Our objectives are to obtain reasonable assurance about whether the annual accounts as a whole are free from material misstatement, whether due to fraud or error, and to issue a statutory auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISA will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual accounts.

As part of an audit in accordance with ISA, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- identify and assess the risks of material misstatement of the annual accounts, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from an error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control;

- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management;

- conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, that a material uncertainty exists related to events or conditions that may cast significant doubt on the company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our statutory auditor's report to the related disclosures in the annual accounts or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our statutory auditor's report. However, future events or conditions may cause the company to cease to continue as a going concern;

- evaluate the overall presentation, structure and content of the annual accounts, and whether the annual accounts represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, amongst other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Report on other legal and regulatory requirements

Responsibilities of the board of directors

The board of directors is responsible for the preparation and the content of the directors' report on the annual accounts, for maintaining the company's accounting records in compliance with the legal and regulatory requirements applicable in Belgium, as well as for the company's compliance with the Companies Code and the company's articles of association.

Responsibilities of the statutory auditor

As part of our mandate and in accordance with the Belgian standard complementary (Revised in 2018) to the International Standards on Auditing (ISA), our responsibility is to verify, in all material respects, the director's report on the annual accounts, and compliance with certain obligations referred to in the Companies Code and the articles of association, as well as to report on these matters.

Aspects regarding the directors' report

In our opinion, after performing the specific procedures on the directors' report on the annual accounts, the directors' report on the annual accounts is consistent with the annual accounts for the same year and it has been established in accordance with the requirements of article 95 and 96 of the Companies Code.

In the context of our statutory audit of the annual accounts we are also responsible to consider, in particular based on information that we became aware of during the audit, if the directors' report on the annual accounts is free of material misstatement, either by information that is incorrectly stated or otherwise misleading. In the context of the procedures performed, we are not aware of such material misstatement. We do not express and will not express any kind of assurance on the directors' report.

Statement on the social balance sheet

The social balance sheet, to be filed at the National Bank of Belgium in accordance with article 100, § 1, 6°/2 of the Companies Code, includes, both in form and in substance, all of the information required by the Companies Code and is free from any material inconsistencies with the information available to us in the context of our work.

Statements regarding independence

- No prohibited non-audit services, as referred to by the law, have been performed and our audit firm and, if applicable, our network of audit firms, remained independent from the company during the performance of our mandate.
- The fees for the additional non-audit services compatible with the statutory audit of the annual accounts, as defined in article 134 of the Companies Code, have been properly disclosed and disaggregated in the notes to the annual accounts.

Other statements

- Without prejudice to certain formal aspects of minor importance, the accounting records are maintained in accordance with the legal and regulatory requirements applicable in Belgium.
- The appropriation of results proposed to the general meeting is in accordance with the relevant legal and regulatory requirements.
- There are no transactions undertaken or decisions taken in violation of the company's articles of association or the Companies Code that we have to report to you.

Zaventem, on 25 April 2018

The statutory auditor
DELOITTE Réviseurs d'Entreprises
SC s.f.d. SCRL
Represented by Laurent Boxus

BALANCE SHEET

As per 31 December (in thousands of EUR)

ASSETS	2017	2016
Fixed assets	1	1
Furniture, vehicles and equipment	1	1
Financial assets	7,380,000	0
Affiliated companies		
- Other receivables	7,380,000	0
Long-term receivables	541,202	7,125,542
Trade debtors	0	6,550,000
Other receivables	541,202	575,542
Stocks and contracts in progress	568,184	574,814
• Stocks		
Work in progress	568,184	574,814
Receivables within one year	300,857	396,056
Trade debtors	189,350	221,297
Other receivables	111,507	174,759
Deposits, securities and bonds	1,614,236	1,478,862
• Other deposits	1,614,236	1,478,862
Cash and cash equivalents	87	15
Prepayments and accrued income	1,644	1,688
TOTAL ASSETS	10,406,211	9,576,978

EQUITY AND LIABILITIES	2017	2016
Capital	12,453	12,453
Issued share capital	49,600	49,600
Capital not fully paid-up (-)	-37,147	-37,147
Share premiums	141	141
Reserves	1,738	1,711
Legal reserve	1,687	1,660
Non-available reserve		
- Other	14	14
Tax free reserve	37	37
Profit brought forward	11	11
Provisions and deferred taxes	10,125,680	9,194,564
Provisions for liabilities and charges	10,125,680	9,194,564
Amounts payable within one year	261,237	360,141
Trade payables		
- Suppliers	92,554	77,589
Taxes, payroll and social security		
- Taxes	3,970	151,797
- Payroll and social security	196	233
Other amounts payable	164,517	130,522
Accruals and deferred income	4,951	7,957
TOTAL EQUITY AND LIABILITIES	10,406,211	9,576,978

INCOME STATEMENT

(in thousands of EUR)

	2017	2016
Operating income	796,129	966,478
Turnover	316,655	276,172
Variation in stocks of finished good, work and contracts in progress (increase +; decrease -)	-6,630	-9,560
Other operating income	18	24
Non-recurrent operating income	486,086	699,842
Operating charges	1,168,328	1,351,490
Supplies and goods	159,065	149,264
Services and other goods	76,043	39,388
Payroll, social security costs and pensions	2,103	1,993
Depreciation and amounts written off on formation expenses, tangible and intangible assets	0	0
Provisions for liabilities and charges (increase +; decrease -)	445,029	461,000
Other operating charges	2	3
Non-recurrent operating charges	486,086	699,842
Operating result	-372,199	-385,012
Financial income	372,785	385,795
Income from financial assets	225,136	0
Income from current assets	126,250	385,619
Other financial assets	0	176
Non-recurrent financial income	21,399	0
Financial charges	42	234
Other financial charges	42	234
Pre-tax operating result	544	549
Pre-tax result for the year	544	549
Taxes on profit	1	0
Profit (loss) for the year	543	549
PROFIT OF THE YEAR TO BE APPROPRIATED	543	549

APPROPRIATION ACCOUNT	2017	2016
Profit to be appropriated	554	560
Profit for the period	543	549
Profit brought forward from previous year	11	11
Appropriation to capital and reserves	27	27
To legal reserve	27	27
Result to be carried forward	11	11
Profit to be distributed	516	522
Dividends	516	522

ADDITIONAL NOTES

(in thousands of EUR)

Fixed assets

FURNITURE, VEHICLES AND EQUIPMENT	2017
Gross value	
At the end of the previous period	3
• Sales and disposals	0
At the end of the period	3
Depreciation and write downs	
At the end of the previous period	2
Movements :	
• Additions	
• Cancelled following sales and disposals	
At the end of the period	2
Net book value at the end of period	1

Financial assets

AFFILIATED COMPANIES	2017
Affiliated companies - Receivables	
• Net book value at the end of the previous period	0
• Additions	7,380,000
• Reimbursements	0
• Impairment	0
• Impairment cancellation	0
• Other	0
Net book value at the end of the period	7,380,000

Deposits, securities and bonds, prepayments and accrued income

	2017	2016
Deposits, securities and bonds		
• Shares	1,614,221	1,351,158
• Term accounts with financial institutions	15	127,704
With residual term of one month	15	127,704
Prepayments and accrued income		
• Accrued interests	1,644	1,688

Equity and shareholders

CAPITAL	2017
Issued share capital	
At the end of the previous period	49,600
• At the end of the period	49,600
Representation of the capital	
Type of shares :	
• Registered shares: 2,000,000	2,000,000
NON FULLY PAID-UP	
Shareholders (non-called capital)	
• Electrabel	37,147
SHAREHOLDER'S STRUCTURE	
• Electrabel	1,999,999 shares
• Belgian State	1 share
	2,000,000 shares

Liabilities, accruals and deferred income

TAXES, PAYROLL AND SOCIAL SECURITY	2017
Taxes	
• Due taxes	-
• Not yet due taxes	3,970
• Estimated taxes	-
Payroll and social security	
• Due liabilities to social security	-
• Other debts related to payroll and social security	196
ACCRUALS AND DEFERRED INCOME	
• Deferred sales	3,054
• Miscellaneous	1,897
	4,951

Operating results

	2017	2016
OPERATING INCOME		
Turnover		
• Fees for the availability of fissile material	316,303	275,244
• Miscellaneous	352	928
	316,655	276,172
OPERATING CHARGES		
Number of staff hired		
• Total at the end of period	14	16
• Average number of staff in full time equivalent	13.8	14.4
• Effective hours	21,162	23,000
Employment costs		
• Payroll and social benefits	1,356	1,453
• Employer's contribution to social security	388	393
• Employer's premiums for non-statutory insurance	312	89
• Other personnel costs	47	58
	2,103	1,993
Provisions for liabilities and charges		
• Increase	503,750	486,481
• Use and decrease	(-) 58,721	(-) 25,481
	445,029	461,000
Other operating charges		
• Taxes related to operations	2	3
• Other	-	-
	2	3
Interim staff and personnel hired from other companies		
• Total number at the end of period	2	2
• Average number in full time equivalent	2.0	2.0
• Number of effective hours	3,440	3,440
• Cost for the company	649	645

Financial results

	2017	2016
FINANCIAL RESULTS		
Other financial charges		
• Bank charges and commissions	42	234

Non recurrent income and charges

	2017	2016
NON-RECURRENT INCOME		
Non-recurrent operation income		
• Other non-recurrent operation income	486,086	699,842
NON-RECURRENT CHARGES		
Non-recurrent operating charges		
• Exceptional provisions for liabilities and charges	486,086	699,842

Taxes

	2017	2016
INCOME TAXES		
Main sources of disparities between pre-tax profit, expressed in the accounts, and the estimated taxable profit		
• Disallowed expenses	60	60
• Use of anterior losses	(-) 604	(-) 610
VALUE ADDED TAX AND RETAINED TAXES CHARGED TO THIRD PARTIES		
Value added tax charged		
• To the company (deductible)	4,452	4,713
• By the company	166,484	205,249
Retained taxes charged to third parties		
• On wages and salaries	522	551

Off balance sheet rights and commitments

Forward transactions

Purchase foreign exchange 346,701

Other commitments

In the nuclear sector, there are purchase contracts for raw materials and services related to uranium concentrates, conversion and enrichment as well as contracts for the back end of the fuel cycle.

Brief description of the additional retirement or survival pension system

Members of staff enjoy an income guarantee in case of retirement or survival based on their seniority as a staff member of the company or as a staff member of affiliated companies and dependent upon their remuneration at the end of their career.

In order to cover engagements deriving from these guarantees, the company transfers contributions to the above mentioned companies and their pension fund and concluded a group insurance policy.

Other off balance sheet rights and commitments

Revision of the nuclear provisions – 3,5% in 2018 517,616

Relations with affiliated and associated companies

AFFILIATED COMPANIES	2017	2016
Financial assets		
• Participation	-	-
• Other receivables	7,380,000	
	7,380,000	
Receivables		
• Long-term (more than 1 year)		6,550,000
• Short-term (less than 1 year)	296,294	285,687
	296,294	6,835,687
Liabilities		
• Short-term (less than 1 year)	164,040	130,099
	164,040	130,099
Financial results		
• Income from financial assets	225,136	
• Income from current assets		342,626

Related party transactions which are not concluded at arm's length

In the absence of any legal criteria to inventory significant non-arm's length transactions with related parties, no transactions are recorded here.

For information purposes and in the interest of transparency, all significant transactions with related parties (apart from transactions with companies which are (more or less) wholly owned by the group to which we belong) are listed below.

Ores

Ores is an operator for all management and operating tasks related to part of the distribution network for natural gas and electricity in Wallonia.

SYNATOM endorsed commercial paper issued by Ores for a total amount of EUR 80 million of which EUR 40 million have been reimbursed in May 2017. The remaining is due to expire in 2019.

Sibelga

Sibelga is the sole manager of networks for electricity and natural gas distribution for the 19 municipalities of the Brussels Region.

In October 2012, Electrabel has transferred to SYNATOM two tranches of a loan to Sibelga. The loan, with an actual outstanding amount of EUR 22 million, is repayable in annual instalments until December 2026.

Financial relations with:

A. Directors and managers

Direct and indirect salaries and pensions to directors and managers charged to the income statement: EUR 25 (997)

B. The auditor(s) or associated persons

Audit fees: EUR 39 (000)

Other control missions EUR 3 (750)

Valuation rules

Formation expenses

The formation expenses are included in the financial year in which they are made.

Tangible fixed assets

Purchase value

Tangible fixed assets are booked on the assets side of the balance sheet at their acquisition price, cost price, or contribution value.

Additional costs

Additional costs linked to investments are included in the original cost of the tangible fixed assets concerned.

They are depreciated at the same rate as the installations to which they relate.

Depreciation

Tangible fixed assets are depreciated as from the date on which they are brought into service. With regard to furniture and vehicles, this date normally corresponds to the date of purchase.

Provisions for depreciation are calculated using the linear method at the following depreciation percentages:

- Furniture : 10%
- Office equipment : 20%
- Second-hand equipment : 33.33%
- Renovations: over the term of the lease.

Financial fixed assets

Participations, stocks and shares

Participations, stocks and shares of non-consolidated companies are booked on the assets side of the balance sheet at their acquisition value or contribution value, excluding additional costs and reduced by any sums outstanding which may still have to be paid.

At the end of each financial year, each security is valued individually according to the situation, profitability or prospects of the company concerned. The method of valuation is chosen objectively, taking into account the nature and characteristics of the security concerned. In most cases, the net asset value is opted for, or the market value if the latter is lower than the net asset value. The criterion chosen for a security is applied systematically from one financial year to the next, unless a change in circumstances justifies doing otherwise, in which case this is specifically mentioned in the notes to the accounts.

Where the valuation thus made reveals a permanent loss of value relative to the inventory value, the securities are written down by an amount equal to the permanent part of the loss in value reported.

An exceptional write-back of amounts written down may be made where a permanent increase in value is reported for securities the value of which was previously written down. Except in this situation, the securities are never revalued, even if permanent increases in value come to light during a valuation of the securities.

Amounts receivable recorded as financial fixed assets

Amounts receivable recorded in the accounts as financial fixed assets are recorded at their nominal value. Fixed-income securities are entered in the accounts at their original cost. If the full or partial repayment of these amounts receivable or securities on their due date appears uncertain or is endangered, the value of these amounts receivable and securities are written down by the corresponding amount.

Amounts receivable after more than one year and amounts receivable within one year

Amounts receivable are recorded at their nominal value and are written down if their full or partial repayment on the due date appears uncertain or is endangered.

In the event of bankruptcy or an arrangement with creditors, unpaid amounts receivable are automatically deemed to be bad debts and their total net value (excluding VAT) is immediately written down. Other amounts receivable may be written down, depending on each situation.

Stocks

Stocks of fuel

Fuel and other raw materials are booked on the assets side of the balance sheet at their original cost, which includes, in addition to the purchase price, additional costs such as non-recoverable taxes and any transport costs.

Stocks are valued at the end of the accounting period on the basis of the weighted average price. Write-downs are recorded in the accounts when the market price proves to be lower than the net book value.

Short-term investments and term deposits

Fixed-income securities

Fixed-income securities are valued on the basis of their actuarial rate of return calculated at the time of purchase.

Provisions for liabilities and charges

At the end of each financial year, the Board of Directors, acting with prudence, sincerity and in good faith, determines the provisions to be made to cover all the forecast risks or any losses which have arisen during the financial year or previous financial years.

Provisions for decommissioning of nuclear power stations

The decommissioning costs coverage is assured, under the supervision of the Nuclear provisions committee created by the law of 11 April 2003, by the build-up of provisions on the liabilities side of the balance sheet. These provisions correspond to the discounted value of the best estimate of the future cost of shutdown, decommissioning and decontamination of nuclear power stations.

Provisions for management of irradiated fissile material

Cover for the future costs concerning storage, processing and removal of irradiated fuel in nuclear power stations (back-end of the cycle) is assured, under the supervision of the Nuclear Provisions Commission created by the law of 11 April 2003, by the build-up of provisions on the liabilities side of the balance sheet. These provisions are determined on the basis of an average unit cost established using the discounted value of the best estimate of the costs corresponding to all the quantities used during the period of operation of the nuclear power stations.

Amounts payable

Amounts payable are recorded in the accounts at their nominal value.

Off-balance sheet rights and commitments

Off-balance sheet rights and commitments are mentioned in the notes to the accounts, by category, for the nominal value of the obligation shown in the contract or, failing this, for the estimated value. Rights and commitments which cannot be quantified are mentioned for the record.

Transactions, assets and commitments in foreign currencies

Current operations in foreign currencies are recorded in the accounts at the spot rate of exchange on the date of transaction. In the case of forward foreign exchange contracts, the asset or liability entries concerned are valued at the coverage rate.

Non-monetary assets and liabilities (mainly formation expenses, tangible and intangible fixed assets, financial assets and stocks) continue to be valued at the historic conversion rates; this value serves as a basis for calculation of depreciation and any amounts written down (see above).

Exchange differences reported on realization of monetary assets and liabilities (amounts receivable, loans and amounts payable) are entered directly in the income statement.

Advance payments are deemed to be monetary or non-monetary assets depending on where they are allocated.

At the end of the financial year, the main monetary items in foreign currencies are revalued on the basis of the valid spot rate of exchange on the date of closure of the accounts, except for items which are the subject of specific hedging and for which the hedging rates are applied. The net conversion differences per foreign currency reported on this occasion are entered in the prepayments and accruals if an unrealized profit is involved, or as a liability in the income statement if an unrealized loss is involved. The currency conversion differences reported on the cash at bank and in hand are included in the income statement, even if a profit is involved.

DETAILS OF THE NUCLEAR FUEL CYCLE

Front end

Extraction : uranium deposits are mined in open pits or underground using the same methods as deployed in other mining facilities.

Concentration : close to the mines, the uranium ore is processed into 'yellow cake', containing roughly 75% uranium.

Conversion : the uranium concentrate is then refined and processed into a gaseous chemical compound: uranium hexafluoride.

Enrichment : before it can be used in Belgium's nuclear reactors, the fuel must contain a higher proportion of uranium 235 than it has in its natural state. The content of uranium 235 has to be increased to more than 4%, using the centrifugation method. The result of this process is enriched uranium hexafluoride.

Fuel assembly manufacturing : this is the responsibility of the power plant operator, who determines the specific requirements. Synatom's mission is to deliver the enriched uranium hexafluoride to the manufacturing plant.

Use in the reactor

The enriched uranium contained in fuel assemblies is leased to the operator.

Back end

Spent fuel management : after 3 to 4 1/2 years in the reactor vessel, fuel assemblies are definitively removed and transferred to an underwater pool to begin their radioactive decay and shed some of their residual heat. This phase of spent fuel management is identical in Doel and Tihange and Synatom entrusts it to the operator.

Interim storage : after a few years in the spent fuel pool, the fuel assemblies are transferred to a centralised interim storage facility. In Doel, dry storage takes place in specific casks. In Tihange, spent fuel is stored in a centralised underwater pool. Eventually, once the current storage capacity has been extended, both facilities will use dry storage in casks.

Conditioning : The spent fuel is conditioned either by reprocessing which consists of the separation of uranium and plutonium - which can be recycled - from radioactive waste, or either by the conditioning of the entire spent fuel assemblies, in order to ensure final disposal.

Final storage : this is the responsibility of the Belgian agency for radioactive waste and enriched fissile materials (ONDRAF/NIRAS), which is responsible for the final management of all nuclear waste produced in Belgium. To date, the problem of final storage of high-grade, long-lived waste remains at the research stage.

In accordance with Belgian law, Synatom publishes its annual report in French and Dutch. An English version is also available.

You can also access and download these three versions at www.synatom.com.

You can also contact by e-mail or telephone

Bernadette De Landtsheer

Bernadette.delandtsheer@synatom.com
Tél : +32 2 505 07 20

Colophon :

Editorial team

SYNATOM
Pages 4 to 11 : ACTE 4 SPRL – Jean-Jacques Pleyers


Photos



- Page 4 : Didier Engels - Chairman : Photo library ENGIE
- Page 5 : Robert Leclère - Chief Executive Officer : David Plas
- Page 6 : Courtesy of Energy Resources of Australia Ltd
- Page 9 : FRAMATOME

Content officer

Robert Leclère

SYNATOM SA

 Société Belge des Combustibles Nucléaires
Boulevard Simon Bolivar 34
1000 Brussels
Belgium

 Tel. : +32 2 505 07 11
 Fax : +32 2 505 07 90

 info@synatom.com
 www.synatom.com

Concept

ACTE 4 SPRL - Jean-Jacques Pleyers

Design

Snoeck Medias - Céline Snoeck
www.s-medias.be

Printed

Xerox

June 2018



SYNATOM SA

Société Belge des Combustibles Nucléaires

📍 Boulevard Simon Bolivar 34
1000 Brussels
Belgium

☎ Tel. : +32 2 505 07 11

📠 Fax : +32 2 505 07 90

✉ info@synatom.com

🌐 www.synatom.com