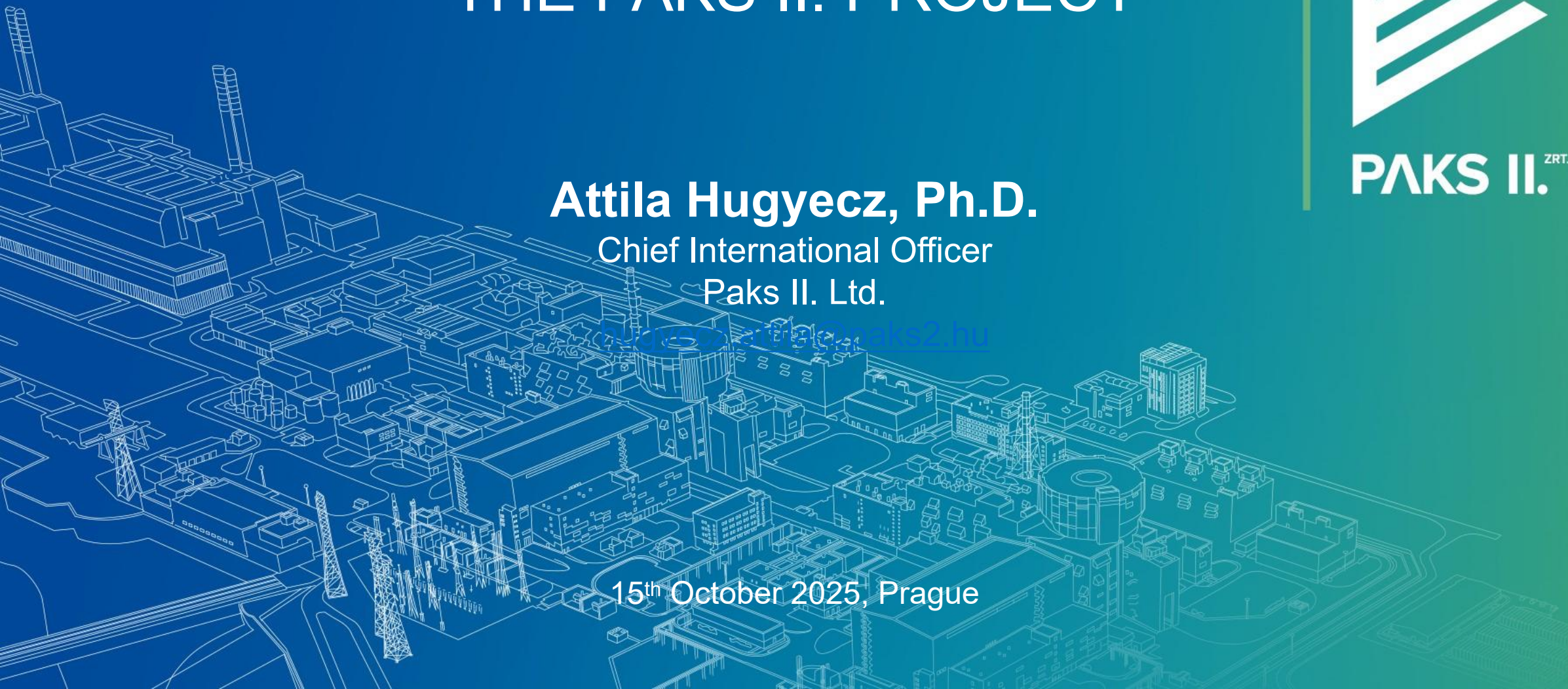
THE ACTUAL STATUS OF THE PAKS II. PROJECT



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15th October 2025, Prague

HUNGARY

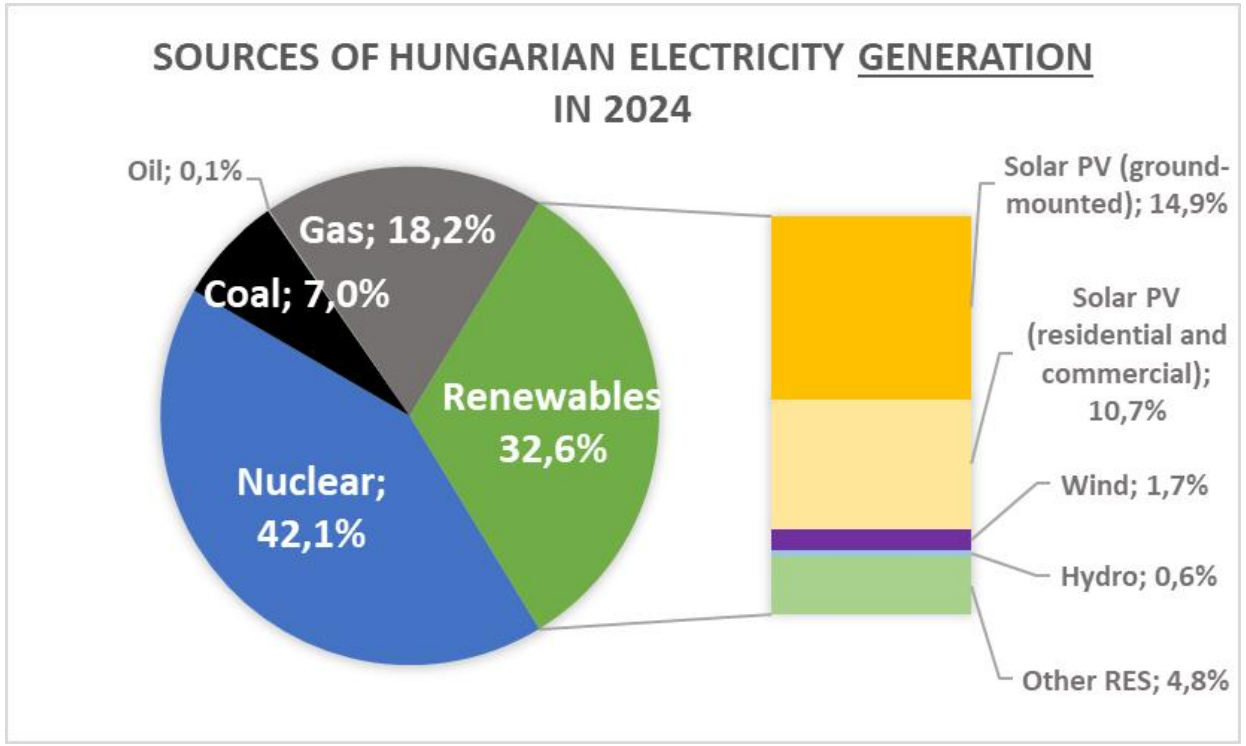
- Population: 10 million
- Area: 93 030 km^2
- Four VVER-440 units (4x500 MWe)

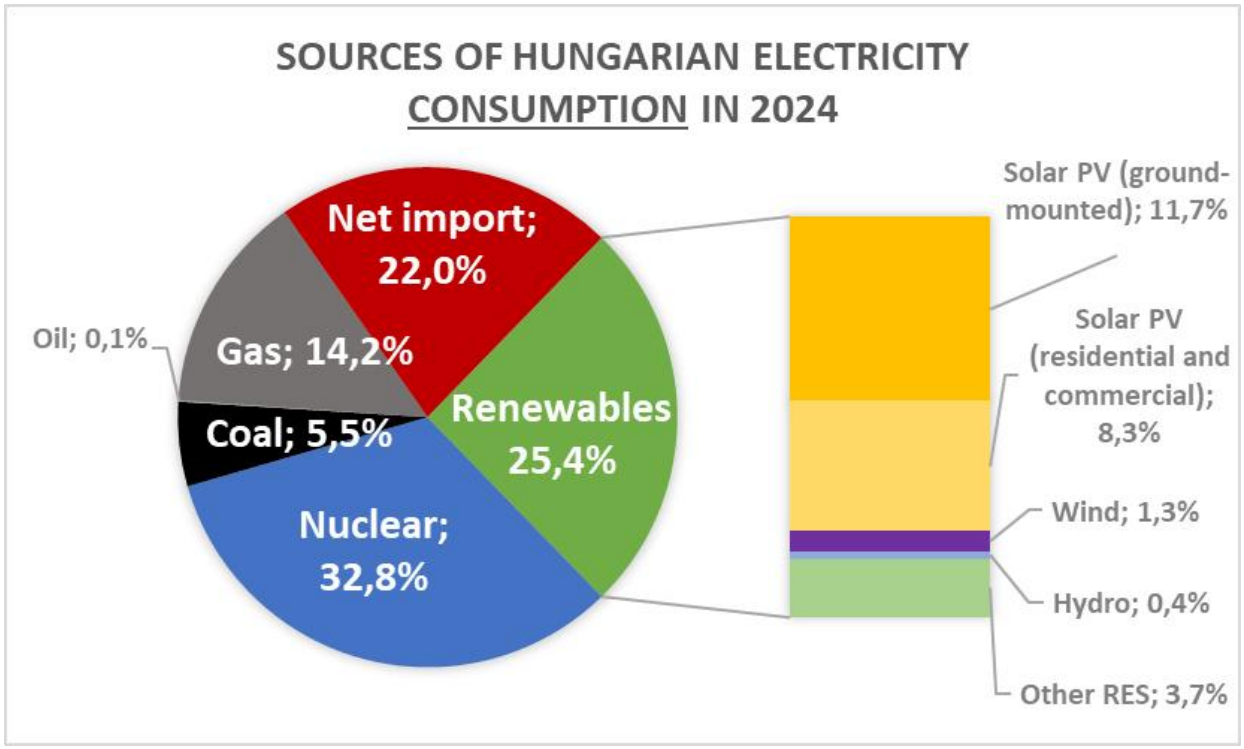
STRUCTURE OF THE PRESENTATION

- Hungary and the Paks II. project – the basics
- Licensing status
- Construction and Erection Base (CEB) works
- Site preparatory works
  - Pit excavation to -5m
  - Cut-off wall construction
  - Soil improvement
  - Pit excavation to design level
- Manufacturing of some long-lead items
  - core catcher
  - turbine
  - RPVs

NUCLEAR PLAYS A CRUCIAL ROLE IN HUNGARY

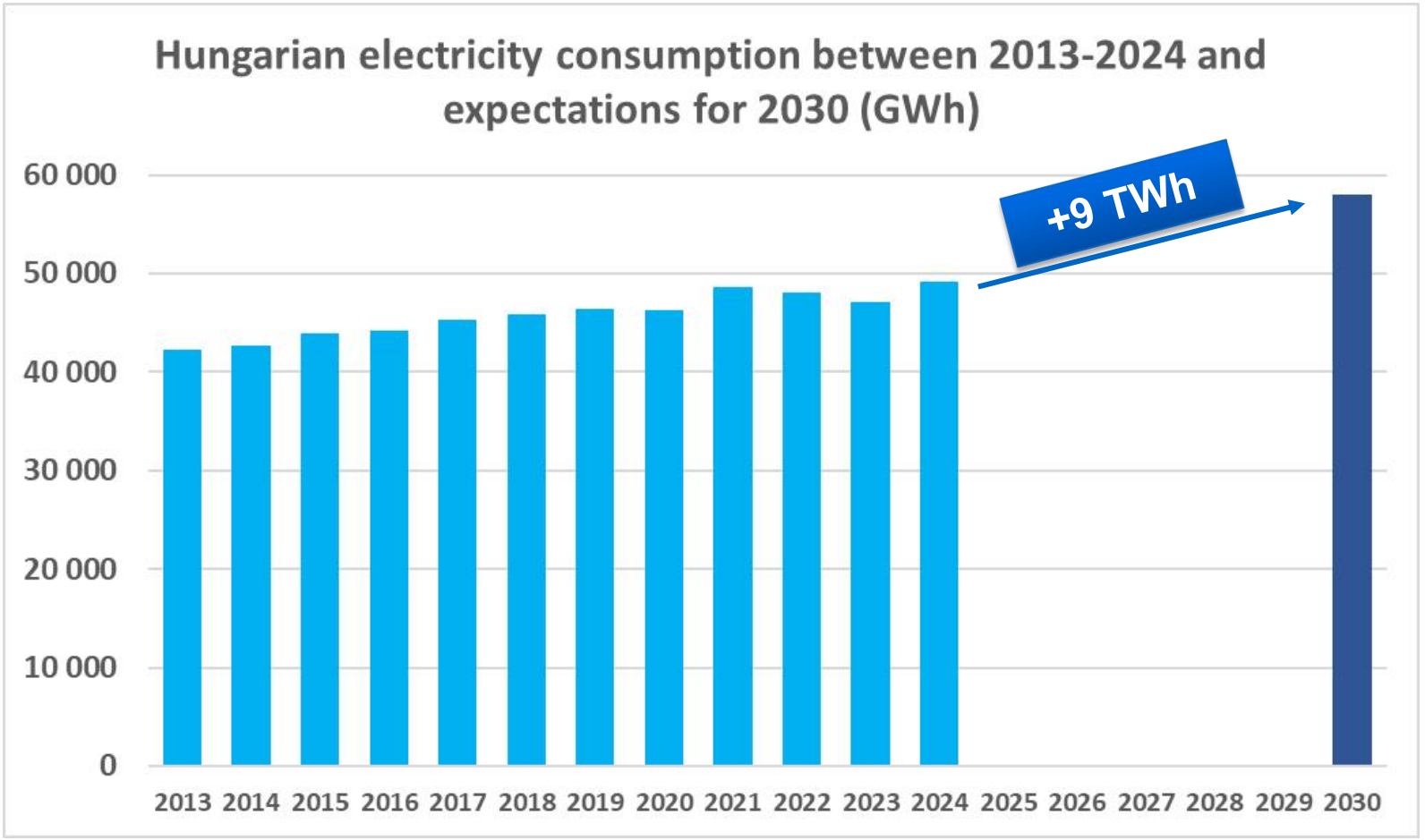
- Electricity consumption in 2024: ≈ 49 TWh





Source of data: MAVIR (Hungarian TSO), MEKH (energy regulatory body), own estimates

ELECTRICITY CONSUMPTION TRENDS IN HUNGARY



- Significant increase expected by 2030
  - new EV battery manufacturing plants
  - 100+ new industrial investments annually
- Longer term expectations, electrification in the
  - mobility sector (EV)
  - space heating sector (heat pumps)
  - industry (machines replacing manpower)

- New domestic power generators needed

Source of data: MAVIR (Hungarian TSO) and own estimates

PAKS II.: CONTRACTUAL FRAMEWORK

- IGA with Russia (2014): 2 new units of at least 1000 MW each
- Technology: VVER-1200, 2 units
- FIGA with Russia (2014): financing of 80% of the project (up to 10 bn €)
- 3 implementation agreements (2014): EPC, O&M, NFS
- EPC: turn-key contract
- EU green lights obtained
- EU procurement obligations: 55% of EPC value to be offered for tenders publicly available, see: www.zakupki.rosatom.ru

Name	Price (rub.)	Tendering Authority	Date of publication of the notice / introduction of changes	Date of completion of acceptance of bids / confirmation of the results	Status
231027/1065/341 № 19677/1173 "Supply of leak-tight bottles for the construction of power units № 5, 6 of Paks II NPP"	247 450 216,98 Lots: 1	Joint-stock company "Atomkomplekt"	27.10.2023	Stage 1: 27.11.2023 / 25.12.2023	Published
231020/1065/330 № 21688/113 Paks5,6 "Supply of closed-circuit cooling systems pumps for the construction of power units № 5, 6 of Paks II NPP"	348 687 990,60 Lots: 1	Joint-stock company "Atomkomplekt"	20.10.2023	Stage 1: 20.11.2023 / 18.12.2023	Published
231020/1065/329 Manufacturing and supply of vessel equipment (Lot No.19677/724 Paks-5,6)	136 902 902,40 Lots: 1	Joint-stock company "Atomkomplekt"	20.10.2023	Stage 1: 20.11.2023 / 08.12.2023	Published
231016/0591/589 Provision of services for destructive and non-destructive testing building materials, products and structures during construction Units No. 5 and No. 6 of Paks II NPP	44 491 467,10 Lots: 1	Atomstroyexport, Joint-Stock Company	16.10.2023	Stage 1: changed / changed	Published

PAKS II.: AN INTERNATIONAL PROJECT

- **EPC requirements based on EUR, IAEA and WENRA requirements,** domestic and international standards
- **Commitment by the Russian Contractor to apply competitive tenders EU-wide**, results:
  - Russian primary circuit paired with a Western European turbine-generator set and I&C system
    - **a turbine-generator set from Arabelle Solutions** (FR)
    - **I&C from Siemens**
- Soil improvement and cut-off wall construction by Bauer (DE)
- Site preparatory works by Duna Aszfalt (HU)
- CEB construction by KÉSZ Zrt. (HU)
- Containment prestressing system by PANNON-FREYSSINET (HU)

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PRESS RELEASE

RASU JSC and Framatome-Siemens consortium sign contract to supply automated process control systems for Hungarian Paks-2 Nuclear Power Plant

www.framatome.com

EU SANCTIONS: A HORIZONTAL EXEMPTION FOR PAKS II.

- Decision 2014/512/CFSP concerning restrictive measures in view of Russia's actions destabilising the situation in Ukraine (**amended** by Council Decision (CFSP) 2024/1744 **of 24 June 2024**)

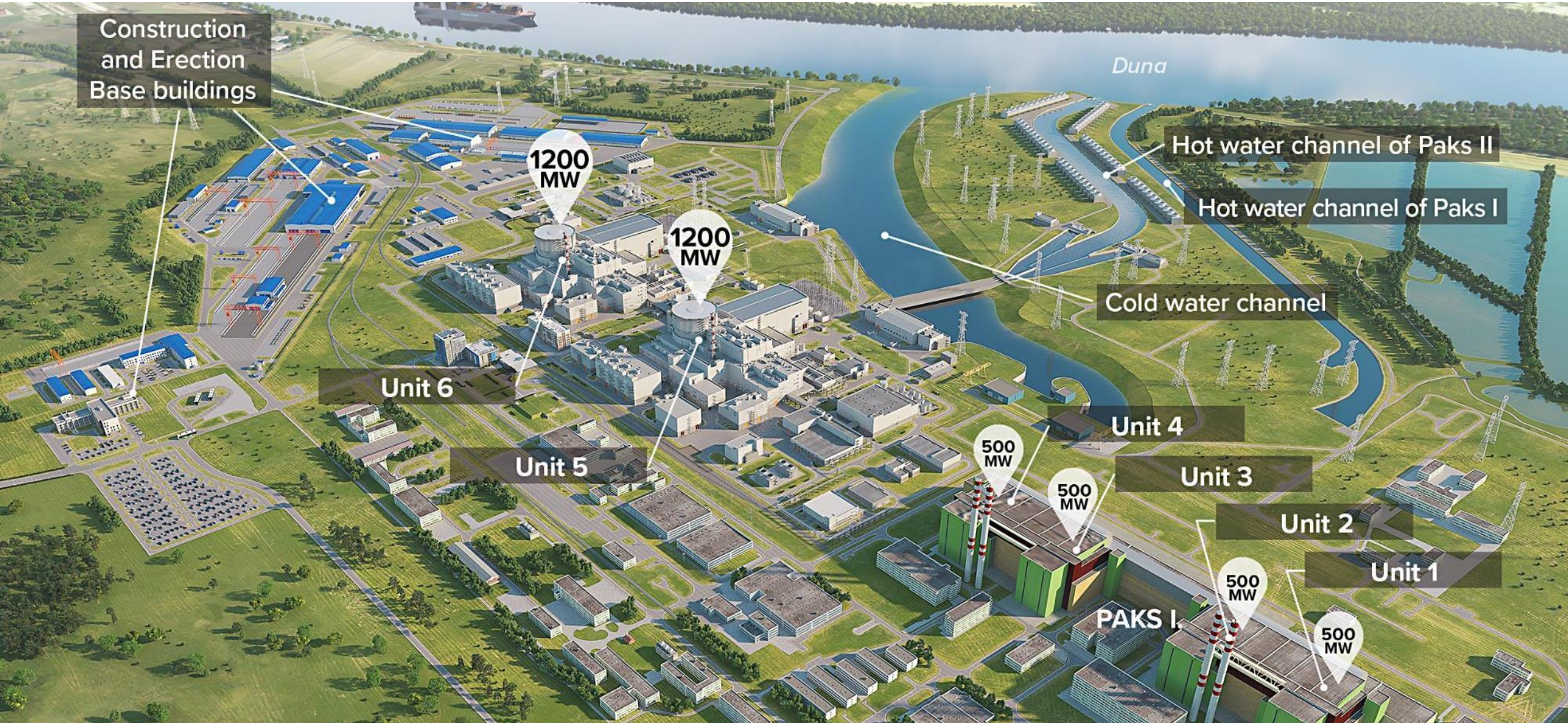
Article 5c

*„**With regard to the Paks II project, the prohibitions in this Decision shall not apply** to activities necessary for the establishment, operation, maintenance, fuel supply and retreatment and safety of civil nuclear capabilities, and the continuation of design, construction and commissioning required for the completion of civil nuclear facilities, **provided that any such activity has been notified** by natural and legal persons, entities and bodies **within two weeks of its start to the competent authority of the Member State** where they are resident, located, established or incorporated.*

The Member State concerned shall inform the other Member States and the Commission of any information received under this Article within 2 weeks of its receipt."

ONLY A NOTIFICATION OBLIGATION APPLIES FOR THE SUPPLIERS OF THE PAKS II. PROJECT, NO APPROVAL NECESSARY

THE SITE

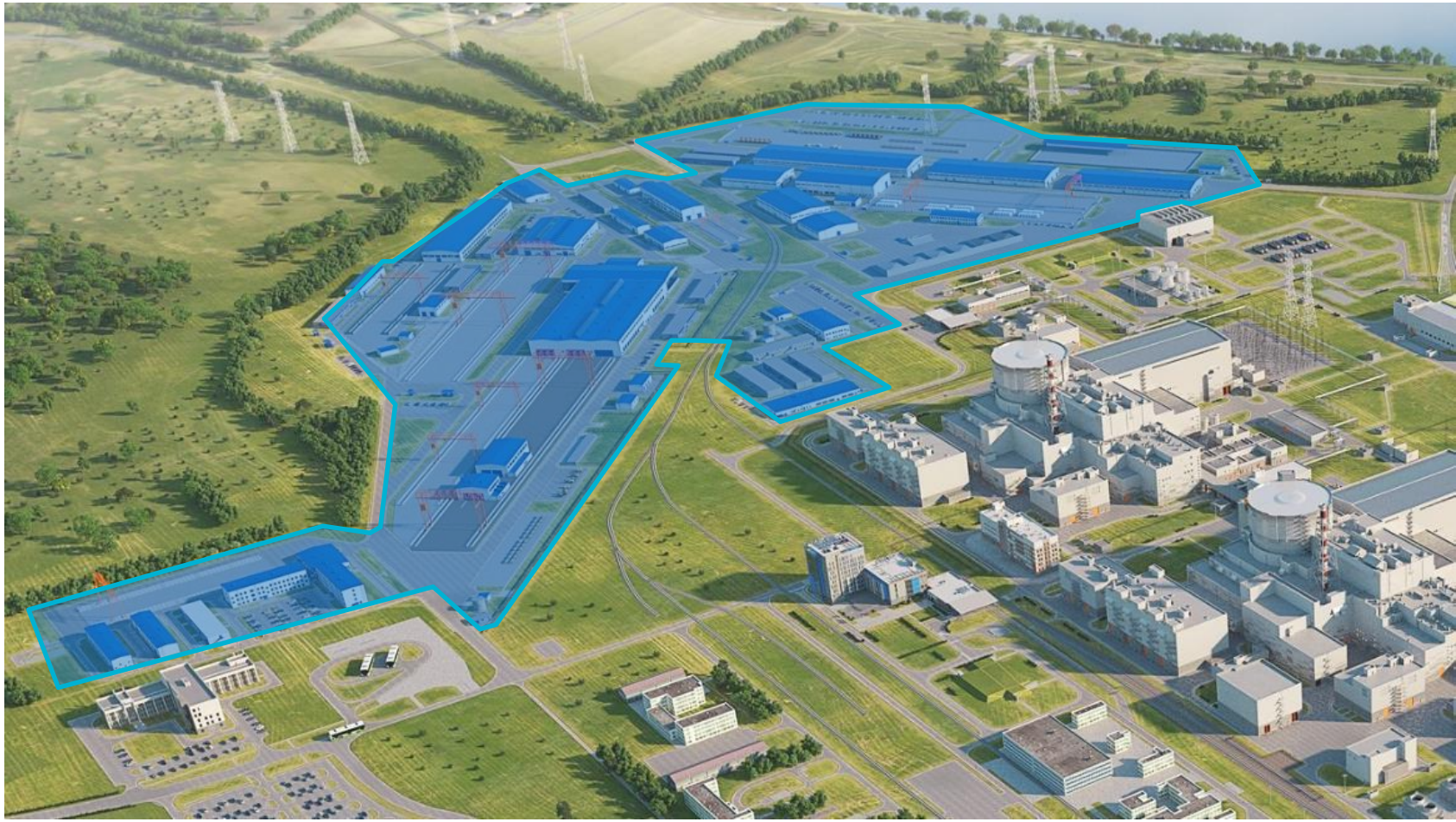

Construction and Erection Base buildings
Duna
Hot water channel of Paks II
Hot water channel of Paks I
Cold water channel
1200 MW
1200 MW
Unit 6
Unit 5
Unit 4
Unit 3
Unit 2
Unit 1
500 MW
500 MW
500 MW
500 MW
PAKS I.

PAKS II.: DESIGN AND LICENSING STATUS

- Environmental license (2016)
- Site license (2017)
- Electricity grid connection license (2020)
- Physical protection license (2021)
- Construction license (2022)
- First concrete related PSAR – approved by the nuclear regulatory body (November 2024)
- All together ≈ 1000 licenses and permits obtained so far

CONSTRUCTION AND ERECTION BASE (CEB)

- In 15 functional groups 119 facilities will be built on the CEB.
- Size of the CEB area: 75 hectares.



CONSTRUCTION AND ERECTION BASE WORKS

Transformer station


Concrete batching facility


Power plant investment centre


Rebar assembly workshop


Concrete test laboratory


Power plant investment centre


Accomodation

CONSTRUCTION AND ERECTION BASE WORKS

Concrete batching facility

Rebar assembly workshop

SOIL EXCAVATION WORKS ON THE SITE

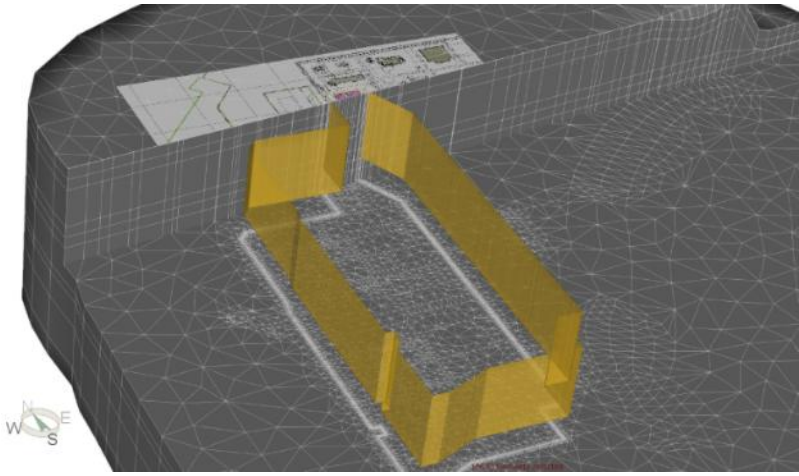
- Pit excavation works to a level of -5 meters under **Unit 5** (started in August 2022) – **COMPLETED in 2023**
  - About 1 million cubic meters of soil removed
- Excavation works under **Unit 6** (started in September 2023), also initially up to a level of -5 meters – **COMPLETED in 2023**
  - Over 600,000 m^3 of soil excavated.

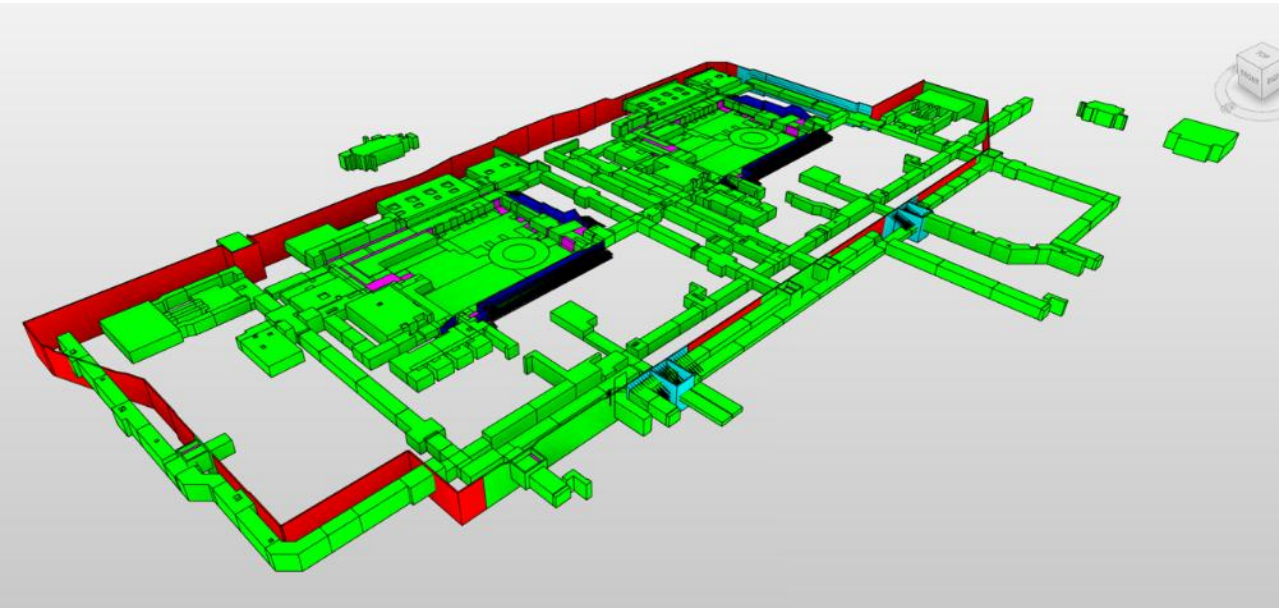
SOIL EXCAVATION IMAGES

THE SITE EXCAVATED TO -5M (COMPLETED IN 2023)

CUT-OFF WALL CONSTRUCTION – COMPLETED

- **The cut-off wall is a 2,7 km long**, one-meter-thick water barrier wall that will act as a „curtain” around the new nuclear power plant's units underground. **It is up to 32 metres deep.**
- Its function is to **ensure that groundwater** can only enter the working pit in a controlled and minimal way and to prevent groundwater levels outside the cut-off wall from decreasing, which is a crucial requirement for the currently operating four units of the Paks NPP.





CUT-OFF WALL CONSTRUCTION – COMPLETED

SOIL IMPROVEMENT – COMPLETED UNDER THE NUCLEAR ISLAND OF UNIT 5 AND UNIT 6

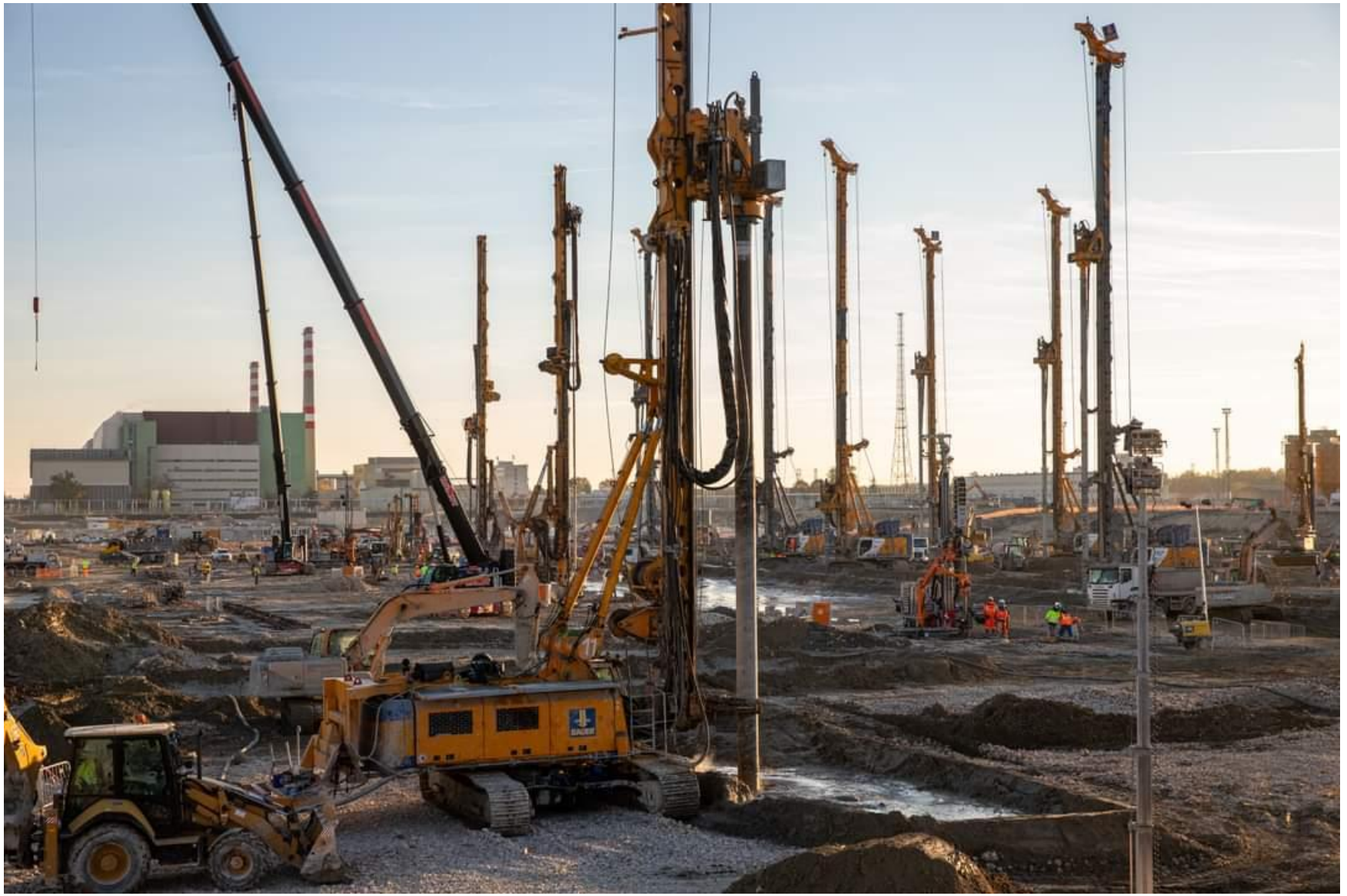
- The buildings on the nuclear island will be massive and the soil beneath the site is prone to liquefaction, therefore soil improvement is required in some areas.
- This will be achieved by using so-called „deep soil mixing” soil improvement technology, which will create compacted and cemented soil bodies consisting of two-meter-diameter soil-cement piles.
- Individual piles will overlap each other.
- **Soil improvement works started in November 2023.**

SOIL IMPROVEMENT WORKS

SOIL IMPROVEMENT TEST RESULTS

SOIL IMPROVEMENT UNDER UNIT 6

SOIL IMPROVEMENT UNDER UNIT 6



PIT EXCAVATION TO DESIGN LEVEL

- Started on 24 September 2024, completed on 19 March 2025

PIT EXCAVATION TO DESIGN LEVEL

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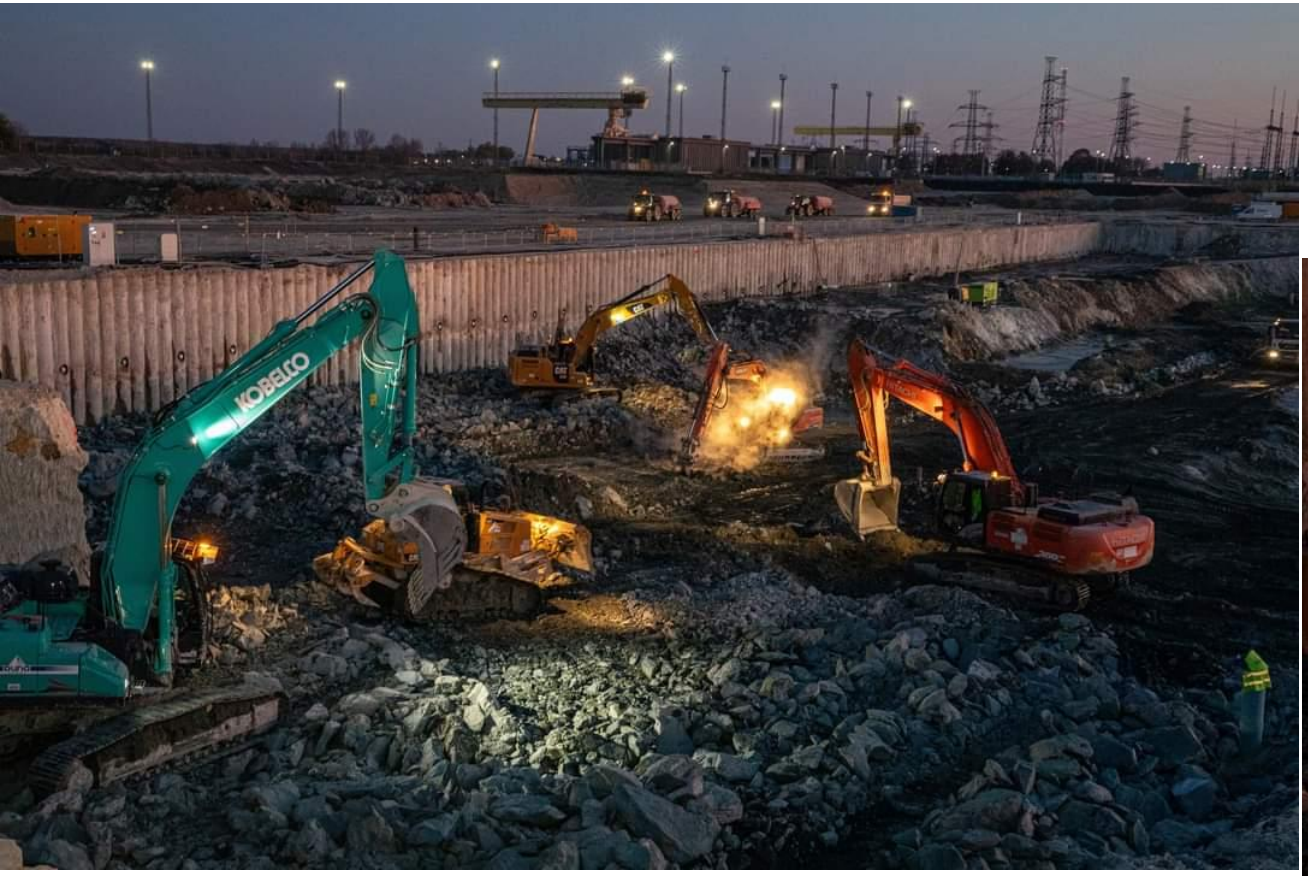
PIT EXCAVATION TO DESIGN LEVEL



- Started on 24 September 2024, completed on 19 March 2025

DIMENSIONS OF THE PIT OF UNIT 5

THE PIT TODAY

RECENT WORKS ON THE SITE

- The installation of the temporary excavation support mesh in the excavation pit of Unit 5 is completed. The implementation was continuously monitored by both HSE experts of Paks II and the authorities.

RECENT WORKS ON THE SITE

- Construction of another site facility has commenced at CEB: groundworks are underway at the pre-assembly workshop of the mechanical and thermal installation complex. Meanwhile, interior works are already in progress at the manufacturing plant for energetics equipment.

RPV, TURBINE AND CORE CATCHER

- **RPV**: forging of the reactor pressure vessels of both units is **already underway** in St. Petersburg
- Manufacturing regularly checked on site by Paks II. and the Hungarian nuclear regulatory body
- **Turbine**: HP-IP turbine manufacturing started in Belfort, France

- **Core-catcher**: a special container located under the reactor vessel, capable of containing the corium in the event of damage.
- **The production of the Unit 5 core-catcher has been completed, delivered to Paks.**
- Weighs 700 tonnes.

DELIVERY OF THE CORE CATCHER TO THE SITE

DELIVERY OF THE CORE CATCHER TO THE SITE

THANK YOU FOR YOUR ATTENTION!

PAKS II. ZRT.