

# From the Commitment to the Delivery In the Czech Nuclear Future

**KHNP**

<http://www.khnp.co.kr/eng/index.do>

June 19, NE•RS 2025 Conference



Dukovany 5,6 NPP Project

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APR 1000

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- 4. Future Plans**

Dukovany 5,6 NPP Project

# CHAPTER

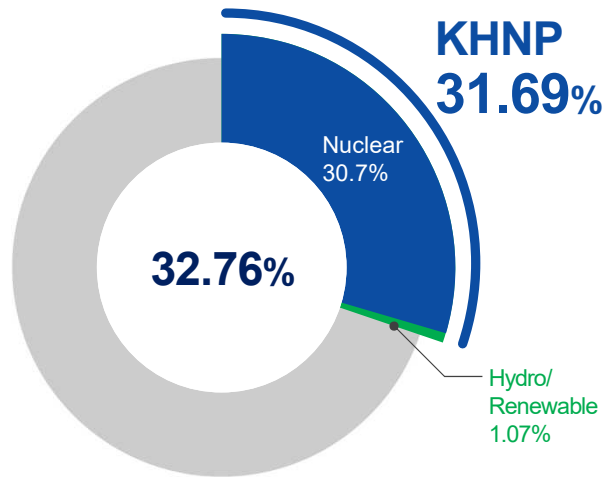


## About KHNP

# Produces One-Third of the Nation's Electricity

## 📍 2024 Power Generation

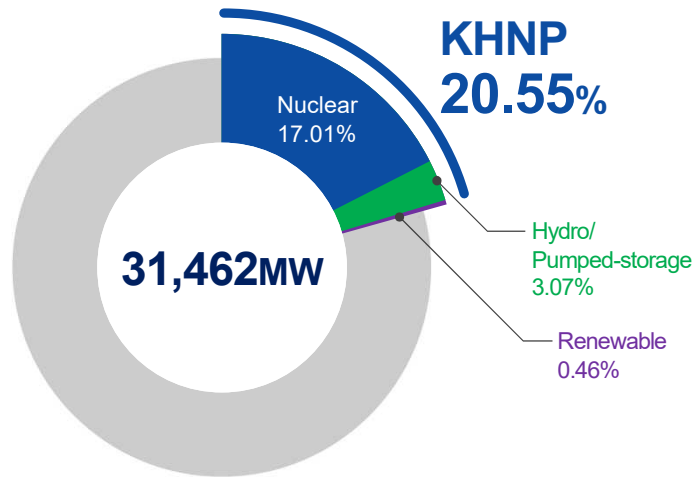
(Based on the Total Domestic Power Generation of 588,047GWh)



Proportion of the total domestic power generation

## 📍 2024 Installed Capacity Distribution

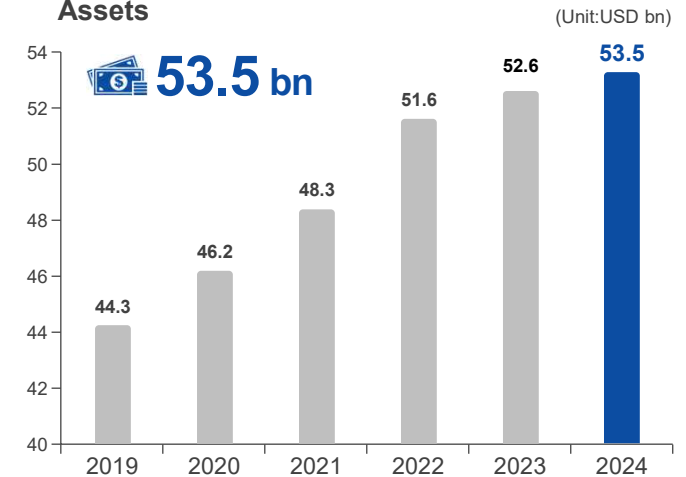
(Based on the Total Domestic Installed Capacity of 153,071MW)



Installed Capacity

## 📍 Robust Financial Stability

### Assets



### Credit Ratings

(As of Dec 31, 2023)

**S&P Global**

**Moody's**  
INVESTORS SERVICE

**FitchRatings**

**AA**  
(Stable)

**Aa2**  
(Stable)

**AA-**  
(Stable)



Our Team

More than **12,500** Employees Including **7,500** Engineers

## Power Plants



- Solar, Wind, Fuel Cell: 67 Units

**Location of Major Power Plants**

**Legend:**

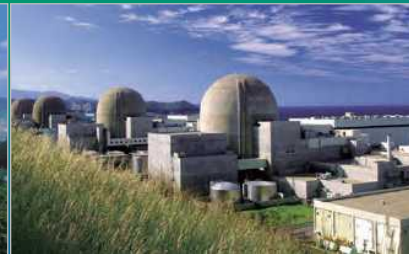
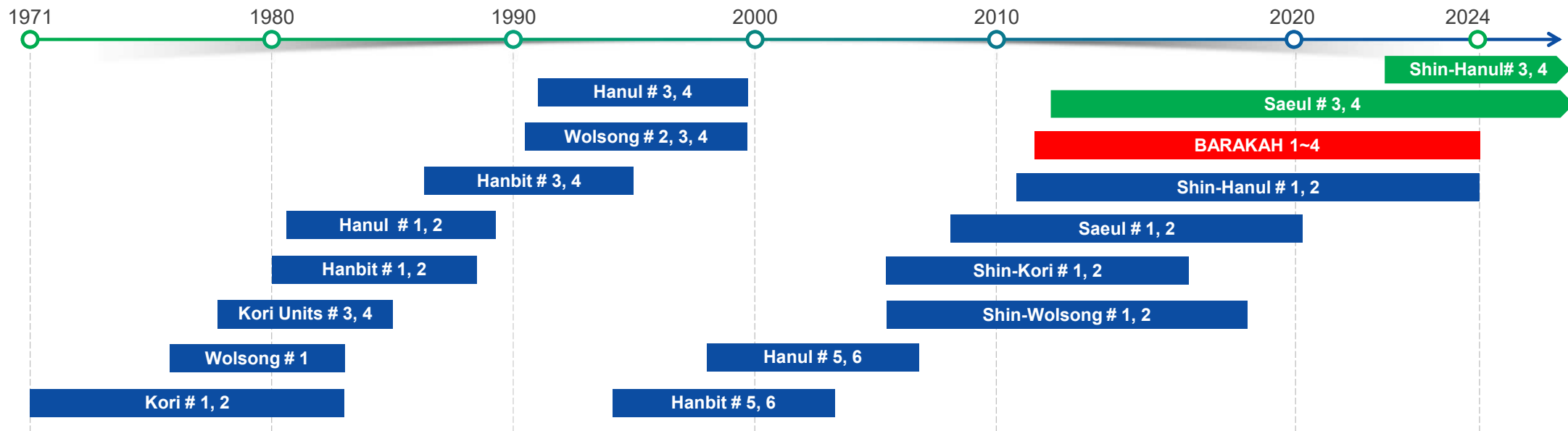
- Green Pin: Hydro and Pumped-Storage Power
- Blue Pin: Nuclear Power Site
- Purple Pin: Fuel Cell

**Major Power Plants:**

- Cheongpyeong Pumped-Storage Power
- Cheongpyeong Hydropower
- Hwacheon Hydropower
- Chuncheon Hydropower
- Uiam Hydropower
- Yangyang Pumped-Storage Power
- Paldang Hydropower
- Yechon Pumped-Storage Power
- Cheongsong Pumped-Storage Power
- Pohang Fuel Cell
- Wolsong Nuclear Power Site
- Samnangjin Pumped-Storage Power
- Saeul Nuclear Power Site Under construction: Saeul Units 3 and 4
- Kori Nuclear Power Site
- Sancheong Pumped-Storage Power
- Hanbit Nuclear Power Site
- Hanbit Solar Park

# Over 50 Years of Continuous Construction

## KHNP's Power Plant Construction History



# Global Projects

## 📍 UAE Barakah NPP



- The first-ever nuclear power in the Middle East
- 4 units of APR1400 (Total 5,600MW)  
Unit #1 (2021), #2 (2022), #3 (2023), #4 (2024)



The only case among OECD countries since 2009 where a nuclear power plant export project has been successfully completed construction on time.

## 📍 Romania

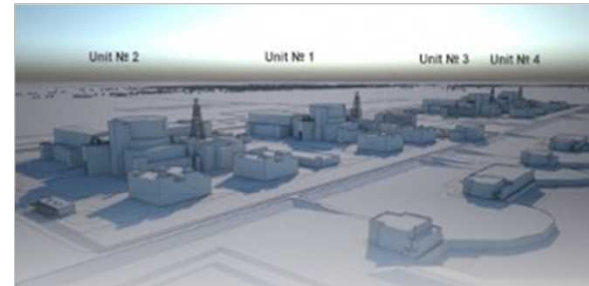


- Detailed design, equipment supply, construction, and commissioning (2023-2027)



Tritium Removal Facility Project in Romania

## 📍 Egypt



- Supply of equipment, construction of turbine buildings, etc. (2022-2029)



Second Part of El-Dabaa Project in Egypt

## 📍 Dukovany NPP in Czech Republic



- Czech New Build: **Contract Signed**
- 2 units APR1000 (1000MW, up to 4 units)



Reaffirming Korea's nuclear edge: 16 years post-UAE

# Construction of Nuclear Power Plant in Korea

Saeul Unit 3 and Unit 4



- **Capacity:** 2 x 1,400MW (APR1400)
- **Construction Start:** April 2017 (Unit 3)  
September 2018 (Unit 4)
- **Completion:** 2026 (Unit 3), 2026 (Unit 4)

Shin Hanul Unit 3 and Unit 4



- **Capacity:** 2 x 1,400MW (APR1400)
- **Construction Start:** May 2025 (Unit 3)  
May 2026 (Unit 4, Planned)
- **Completion:** 2032 (Unit 3), 2033 (Unit 4)

KHNP President & CEO “We will do our utmost to ensure the safe construction of Shin Hanul Units 3 and 4, and **Complete the project on time and within budget(May 20 2025)”**

Dukovany 5,6 NPP Project

## CHAPTER 2

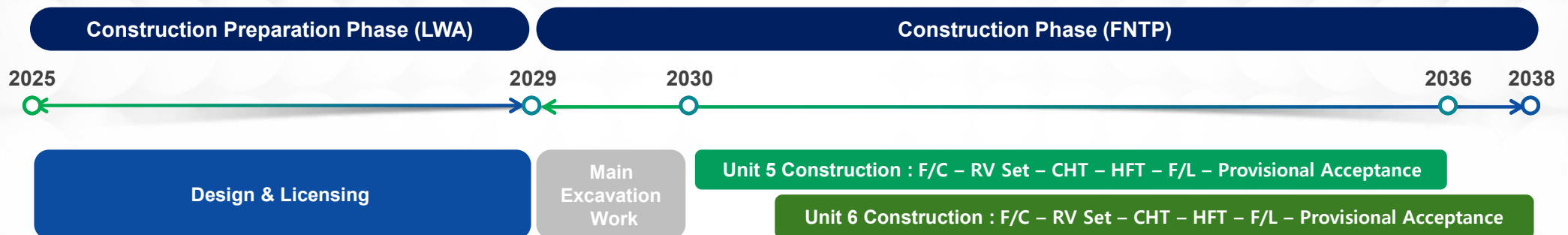


# Overview of The Dukovany 5,6 Project

# Project Overall – Dukovany 5,6

## 📍 Overview and Progress of the Czech Nuclear Power Project

- **Project Scope:** Dukovany 5,6 (APR1000, 2units)
  - \* Construction options for 2 units at Temelin (Temelin Units 3 and 4) to be determined later depending on progress
- **Scope of Contract:** Engineering, Procurement, and Construction (EPC) and nuclear Fuel supply
- **Owner:** EDUII(Elektrárna Dukovany II, a.s.)
- **Prime Contractor :** KHNP(Korea Hydro & Nuclear Power Co, Ltd.)
  - \* KHNP will form Team Korea with:  
KEPCO E&C(design), KEPCO NF(nuclear fuel supply), KEPCO KPS(maintenance)  
Doosan Enerbility(major components and construction), Daewoo E&C(Construction)
- **Project Schedule:** June 2025 ~ April 2038 (Total: 153 months)



- LWA(Limited Work Authorization) : Pre-construction phase involving limited preliminary activities such as design, permitting, licensing
- FNTP(Full Notice To Proceed) : Commencement of full-scale construction activities covering the entire scope of the project

Dukovany 5,6 NPP Project

## CHAPTER 3



# Progress of the Dukovany 5,6 Contract

# Milestones to Final Contract Signing

📍 Press Briefing on the Preferred Bidder(17<sup>th</sup> July 2024)

Prime Minister

***“The Decision was unanimous”***  
***“The KHNP offer was better practically in all assessed criteria”***



**250 times(including virtual) negotiations**  
**Approximately 7,000 Man-Day**

**CEOs of CEZ and KHNP**



**Shared Vision  
for the Project's Success**

**Negotiation Kick-off**



**Beginning the Preparation  
For the Final Contract**

**Negotiation(Aug & Sep)**



**90 KHNP Engineer in CZ**

**Negotiation(Nov & Dec)**



**60 CEZ Engineer in KOR  
90 KHNP Engineer in CZ**

**Negotiation(Jan)**



**60 KHNP Engineer in CZ**

**End of Negotiation(Mar)**



**60 KHNP Engineer in CZ**

# Milestones to Final Contract Signing

📍 Press Briefing on the Contract Signing(4<sup>th</sup> June 2025)

Prime Minister

*“KHNP offered the best conditions and also the strongest guarantees”*  
*“This is an important step towards greater energy self-sufficiency and security for Czech Republic”*



Dukovany 5,6 NPP Project  
**CHAPTER 4**



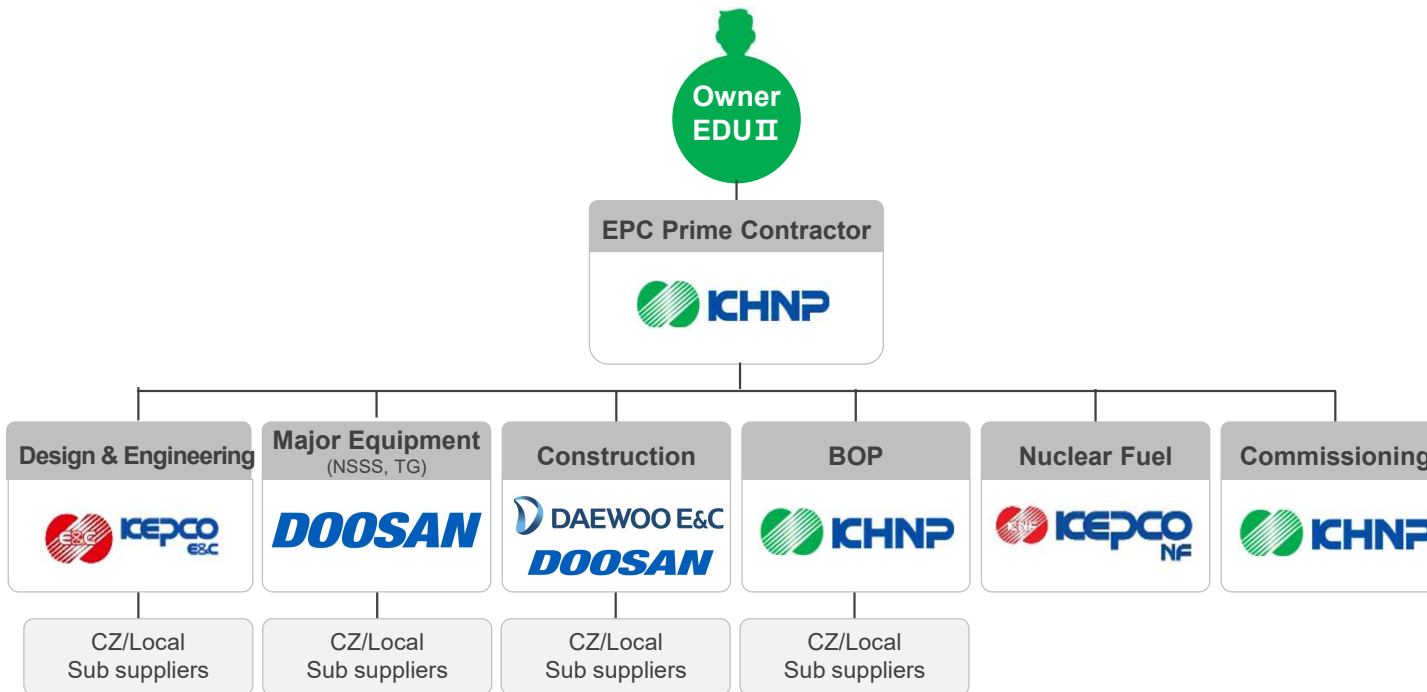
# Future Plans

# Project Structure of Team Korea

📍 Proven Project Management Capability and Robust Supply Chain

## Team Korea

## Key Advantages as Team Korea

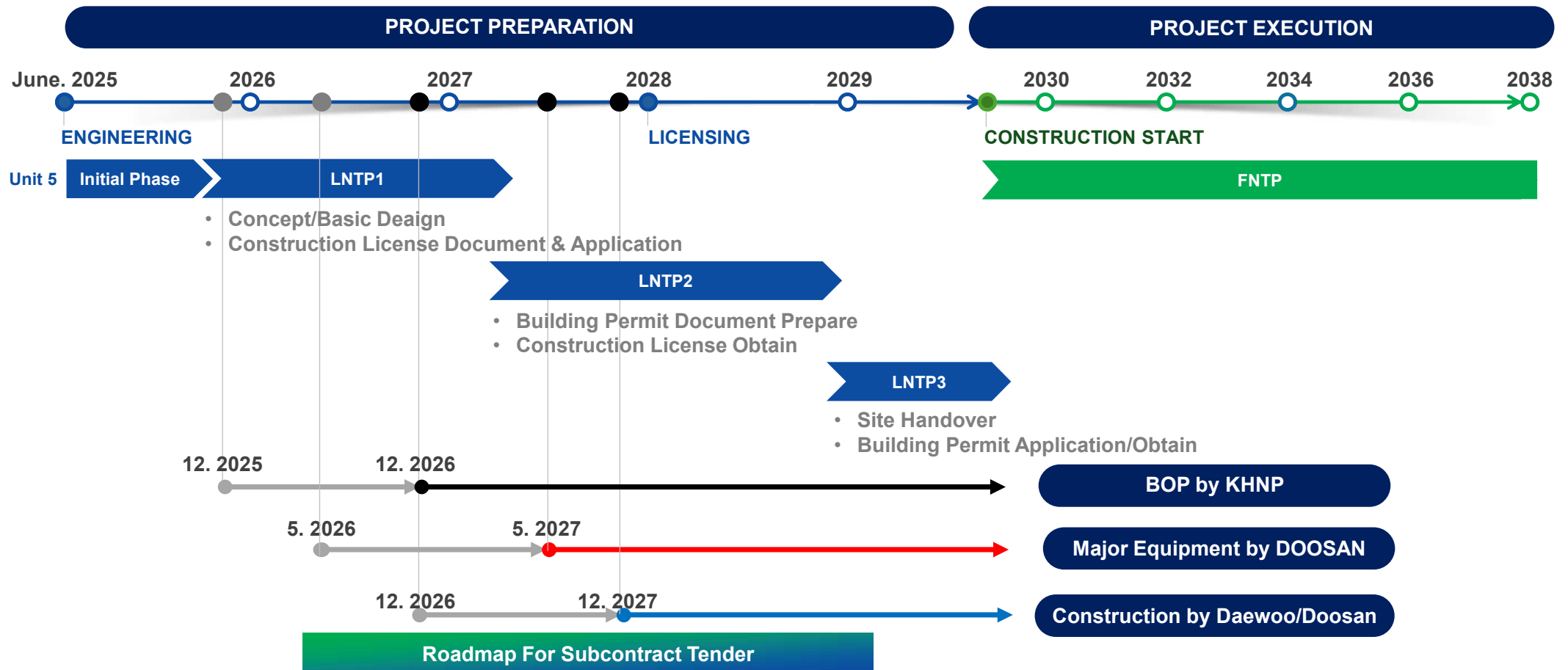


- One-stop EPC Solution**
  - Seamless integration of design, equipment, construction
- Joint Execution Experience**
  - Members jointly delivery the Barakah project
- Strong Internal Coordination**
  - Vertically integrated team enables fast decision-making
- Full Lifecycle Support**
  - Comprehensive coverage from design to long-term services
- Deep Partnership with Czech Industry**
  - Long-term cooperation potential through supply chain

With the integrated capabilities of Team Korea,  
**KHNP will ensure successful project execution - on time and within budget**

# Project Plan

📍 Preparing for Full-scale Construction starting from 2029



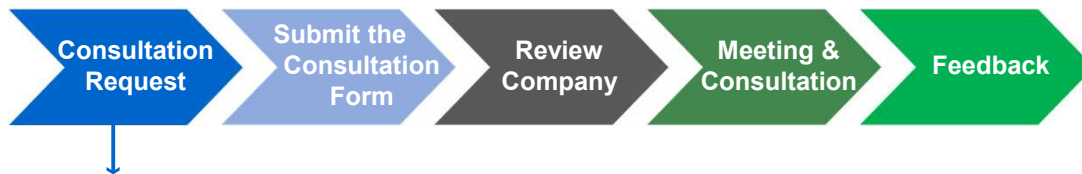
- LWA(Limited Work Authorization) : Pre-construction phase involving limited preliminary activities such as design, permitting, licensing
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# Localization Implementation

Localization will be implemented and closely monitored throughout the project to achieve the goals by the project's end  
**“Achievement of Planned localization : 60% By 2039”**

## Localization Support Center(Launched on March 27)

## Supplier Registration Information Session

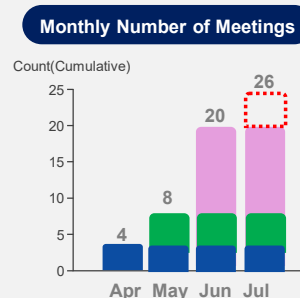
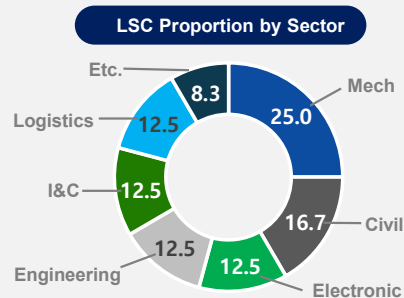


### Contact Point Registration

- email : [localization.khnp@gmail.com](mailto:localization.khnp@gmail.com)
- Contact No. : +420 222 753 180

### Operational Results of Localization Support Center

- A total of 28 companies have requested meetings  
 → 20(completed), 6(scheduled), 2(Declined: No info received)



### Main Topics

- Company Introduction
- Project Status update
- Opening time of SCM
- Registration Procedure
- Evaluation Method



**Information Sessions** on Procurement Plans and Participation Criteria will be held **in July**

# Detailed Site Investigation & On-boarding Education

Site Data Acquisition and Licensing Documentation for  
NPP Structure and Facility Design  
"To be conducted for 12 months after contract  
commencement by ČEZ EP "

## Key Site Investigation Activities

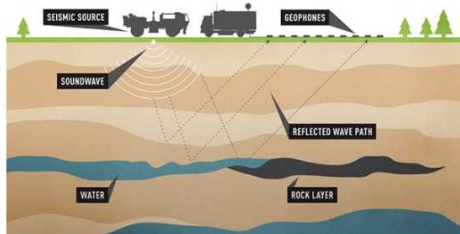
### Borehole Drilling



### Cone Penetration Test



### Surface Geophysical Survey



### Surface Geophysical Survey



On-boarding Education Program for Owner and KHNP  
"To be conducted until December 2025  
to support adaptation to the APR 1000 project"

## Training Content and Schedule

Stages	Training Topic	Target Participants	Location
On-boarding	Organization & Project Management	KHNP Employees	Korea
	APR1000 Overview	EDUII Employees	Czechia
	APR1000 System Overview	EDUII Employees	Czechia
Familiarization	APR1000 Design	EDUII Employees	Korea
	New Nuclear Equipment Procurement	EDUII Employees	Korea
	Document Management System	EDUII Employees	Korea

*New President Lee and Prime Minister Fiala assessed that  
The Signing of the final contract marks a “cornerstone” for deepening economic ties between the two countries*

*The two leaders agreed to work closely together to expand comprehensive cooperation in other area,  
Including high-tech industries, infrastructure, and energy.*

*- 11 June 2025 -*

**The Commitment is made.  
The Delivery has begun.**

**(Korea and Czechia “100 years” partnership for the Nuclear industry)**

**Thank you**