

A background network diagram consisting of numerous light gray circular nodes connected by thin gray lines, forming a complex, interconnected web structure.

FENNOVOIMA

Spent fuel management

Presentation to the Blue Ribbon Commission
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Contents

Fennovoima – a new nuclear company

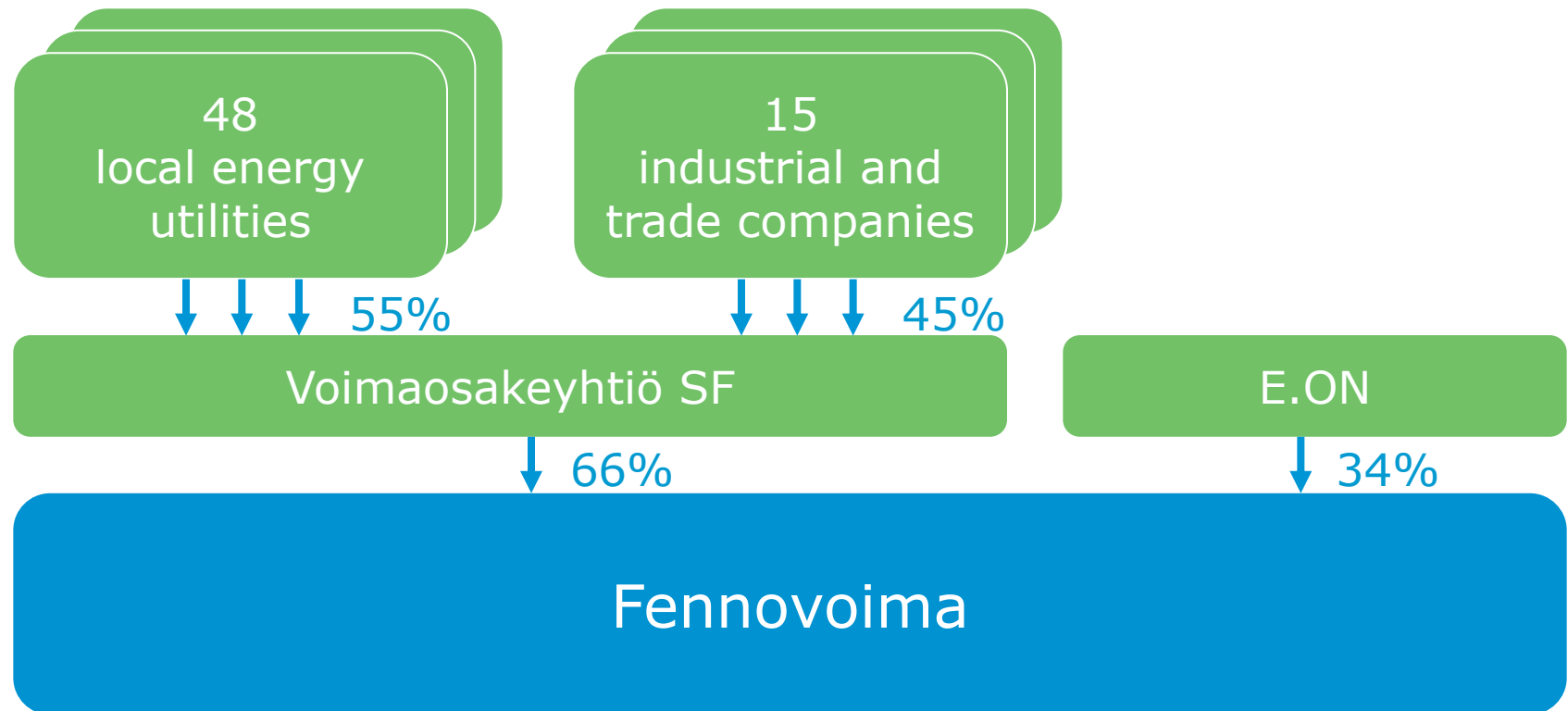
Spent fuel management in Finland and for Fennovoima

Fennovoima – a new nuclear company

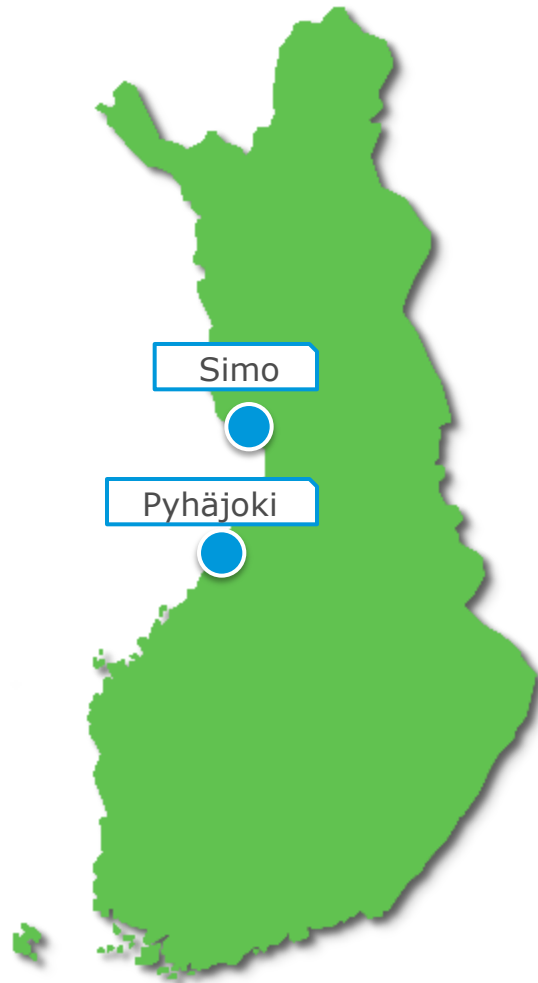
...was established in 2007 to provide independent nuclear generation and increase competition on the electricity production

...operates as a cooperative, producing to only owners at cost (non-profit Mankala principle)

...in July 1, 2010, received a Decision-in-Principle for one reactor up to 1800 Mwe on either of Fennovoima's candidate sites



Two alternative greenfield *plant* sites



Sites will host

- Power plant & associated infrastructure
- Interim storage facility for Spent Nuclear Fuel (SNF)
- Final disposal facilities for Very Low, Low and Medium Level Waste

Started with 40, EIA carried out for 3 sites

- Concluded by MoEE statement in February 2009

Sufficient land area secured

- More than 300 hectares acquired in both locations
- Preliminary geologic surveying done to assess site characteristics and verify suitability for both the plant and disposal facilities

Decision-In-Principle (DIP) Process finished with two sites

- STUK's Preliminary Safety Assessment covers both plant technologies and site characteristics (at showstopper identification level); concludes that sites are acceptable from safety perspective

Pyhäjoki, Hanhikivi peninsula

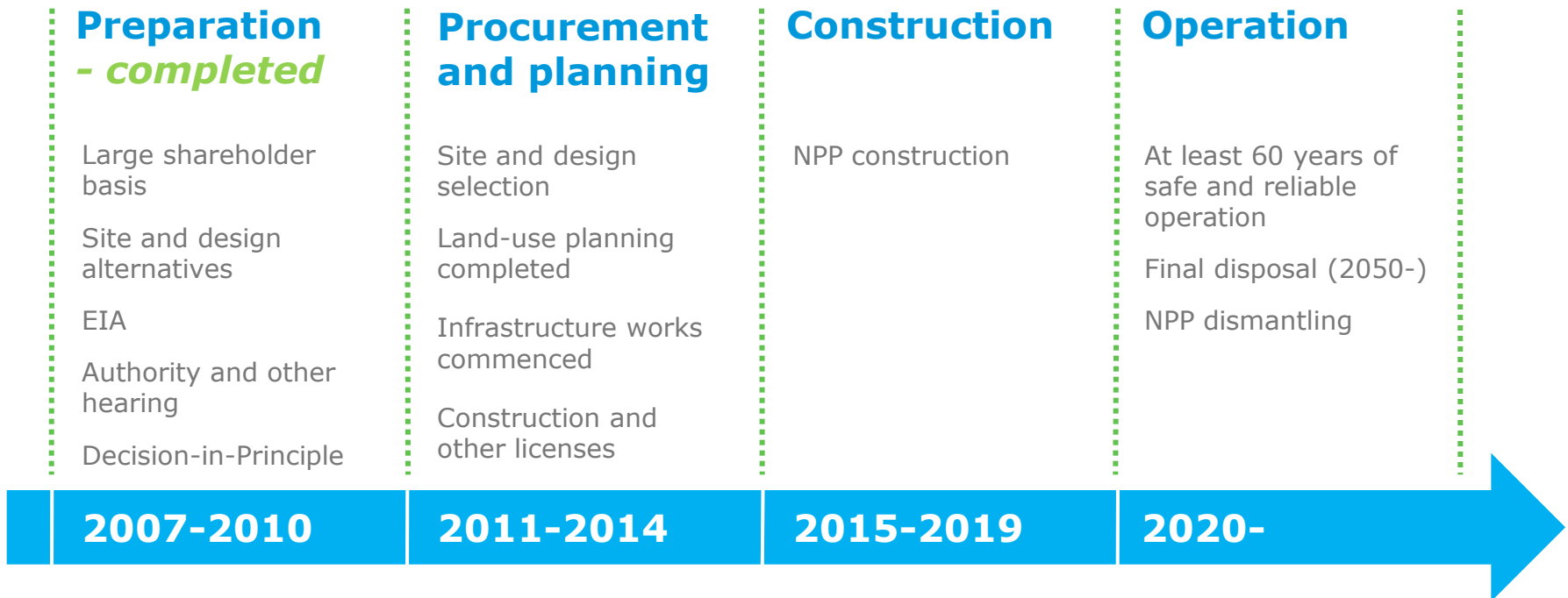


Simo, Karsikko peninsula



Thorough preparation essential

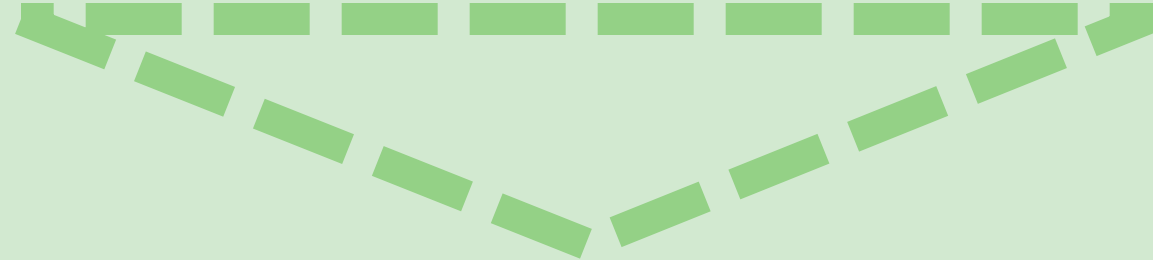
A more detailed schedule will be available after the plant contracts have been made



SNF management in Finland – early years

	Government	Fortum	TVO
1978-1981		Commissions Loviisa 1 & 2	Commissions OL 1 & 2
Early 1980's	Decides that SNF disposal technology shall be developed and a repository site established by 2000 for SNF not reprocessed abroad	Begins to export SNF to Soviet Union as per original plant and fuel contracts	Joins the Swedish utilities who develop deep geologic disposal "KBS-3". Begins site exploration in Finland
Mid-1990's	Forbids all import and export of SNF; prepares to force Fortum and TVO to co-operate on SNF	Fortum buys into the TVO repository work; they found Posiva (40/60 shares) to carry out the work for all SNF produced in Finland	
2000-2001	Approves (DIP) for Olkiluoto as final repository site for operating reactors and enlargement for FIN5 (OL3)	Posiva asks for "reserve space" in repository dimensioning, but Government refuses	
2001-2009		Posiva prepares EIAs and DIP applications for repository enlargement for OL4 and LO3	

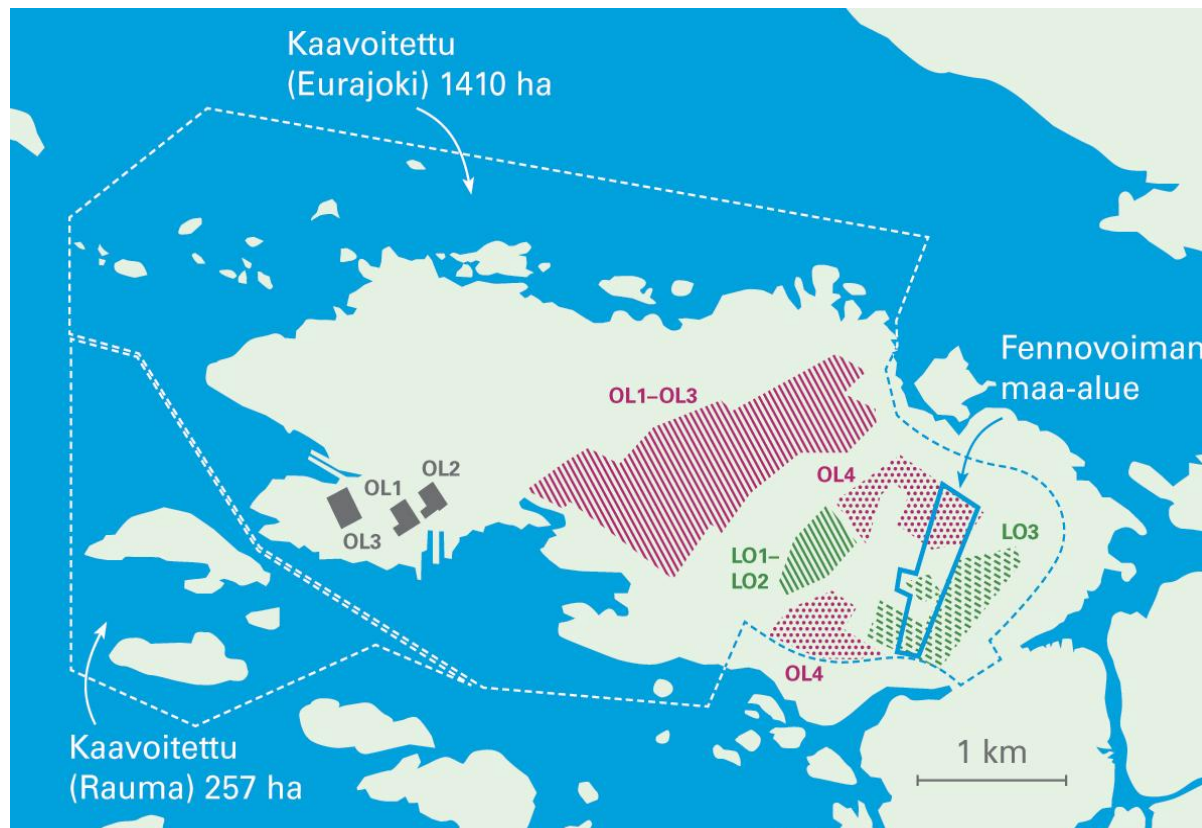
SNF management in Finland - now

	Government	Fortum	TVO	Fennovoima
2001-2009		Posiva prepares EIAs and DIP applications for repository enlargement for OL4 and LO3		
2007-2009		Fortum, TVO and Posiva refuse to deal with Fennovoima		Fennovoima is established; asks Posiva, TVO and Fortum to discuss common SNF management
2010	Approves Fennovoima and TVO new reactor DIP applications; Parliament attaches a motion aiming at common national SNF management, requiring Fortum, Posiva and TVO to negotiate with Fennovoima	 <p>Direct discussions between Fennovoima, Fortum, Posiva and TVO are not underway yet</p>		

Spent fuel cooperation is feasible

The Parliament requires that cooperation be fostered.

Fennovoima is ready to follow this guidance, and offers to bear a fair share of the cost of the earlier work



Olkiluoto land use plan allocates 1600 hectares for underground waste disposal (some of this area is not usable due to geologic features)

One reactor consumes around 50 hectares

All over the world, spent fuel is managed using national solutions



FENNOVOIMA

Thank you.

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