

ENSREG SMR Task Force Dashboard (23 April 2025)

The EU SMRs Industrial Alliance has initially identified 9 projects to focus their work in in the so-called ‘project working groups’ (PWGs). In a follow-up to the work of Work Stream 2 (licensing) of the EU SMRs pre-partnership, a dashboard was created with the status of regulatory involvement of SMR projects. The ENSREG SMR Task Force has updated this dashboard, initially focusing exclusively on the PWGs designated by the Industrial Alliance. The Task Force will be regularly updating the ENSREG Plenary and external parties on the status of regulatory engagement on SMRs, with the aim to capture the relative changes in progress over time.

Each EU Member State has its own approach to licensing, and the phases preceding licensing, which may be formal or informal. Descriptions of licensing procedures in each country should be consulted in the respective regulators’ publications. The dashboard tries to capture the varying phases of (pre-)licensing within the ENSREG SMR Task Force members, with information provided by the regulators represented in the SMR Task Force. Occasional contacts with regulators without near-term prospects to engage in a serious dialogue are not included in the dashboard.

Typical phases

For the purpose of comparison in this dashboard, the SMR projects are categorized into typical phases as described below. By coupling the projects to these phases, the aim is to come to a common understanding of the relative progress in engagement with the regulator(s) of the respective projects. The national regulator defines the phase of regulatory engagement for a project in a specific country.

The duration of the two first phases may vary depending on the design phase progress of the project. The project is expected to progress towards the licensing phase, depending on the development of several aspects, such as technical and organizational maturity. When designs are reconsidered or further developed, regulatory engagement may be halted. The resources dedicated by the regulator will increase proportionally with each successive phase.

1. Early dialogue

- Preliminary contact between regulator and either vendor, utility and startup to discuss, depending on the country, project maturity, national framework, safety requirements, and licensing procedures.
- Observer status on a more advanced review (such as the General Design Assessment (GDA) by ONR in the UK) may be considered a form of early dialogue.

Industrial Alliance PWG	ENSREG members involved
Rolls Royce SMR	CZ; GDA Observer: FI, PL, SE, NL
BWRX-300	FI, NL

2. Preparatory Review

- Needs to have an established conceptual design and an organisation with enough technical and financial capacity to substantiate engagement.
- Preliminary technical discussions, with limited scope and/or degree of detail.
- In some countries, in this phase a general statement could be given by the regulator regarding the eligibility of the design for a license in the context of a feasibility study or “decision in principle”; in other countries, no opinion or decision by the regulator is issued at this stage.

- Joint reviews are a form of preparatory review involving two or more countries working together in an agreed format.

Industrial Alliance PWG	ENSREG members involved
CityHeat	FI (CALOGENA and Steady Energy)
Thorizon	Joint preparatory review: FR, NL
European LFR AS	FR
Quantum	RO
Nuward	Joint Early Review: CZ, FI, FR ¹ , PL, NL, SE

3. Review and Assessment (pre-licensing)

- Discussions, review and assessment work to be done at a high level of technical detail. It may be limited in scope.
- May be part of pre-licensing procedure.
- In some countries, location for deployment may be already chosen at this stage or there is a firm commitment to deploy at that country.
- Applicant/designer needs to have and commit resources in the country. Resources need to be suitable to discuss, deliver answers and adjust safety documentation during the review and assessment by the regulator in a structured and reliable way.

Industrial Alliance PWG	ENSREG members involved
CityHeat	FR (CALOGENA)
EU-SMR-LFR	RO (ALFRED), BE (LEANDRA)
Nuward	FR
Rolls Royce SMR	CZ
BWRX-300	CZ, PL

4. Licensing

- Goal of a site-specific final license decision to construct.
- Full review and assessment may be finished in this phase.
- Formal procedures, or last stages of informal procedures with a clear road map to decision making.

Industrial Alliance PWG	ENSREG members involved
NuScale	RO

¹ In FR, Nuward has advanced to the Review and assessment phase

Dashboard March 2025

Industrial Alliance PWG	Designer	Reactor technology	Core thermal Power (1 module)	Status of the project company	Objective / first target market (end-use)	Involved regulatory bodies	Regulatory engagement phase
BWRX-300 SMR	GE Hitachi	BWR	900 MWth	Existing utility	Electricity production	Czech Republic	Review and Assessment
				Start up utility		Finland	Early dialogue
						Netherlands	Early dialogue
				Existing utility	Cogeneration	Poland	Review and Assessment
CityHeat	CALOGENA	PWR	30 MWth	Start up utility	District heating	France	Review and Assessment
	LDR-50		50 MWth			Finland	Preparatory review
						Finland	Preparatory review
European LFR AS	Newcleo	LFR	80 MWth	Start up utility	Experimental prototype	France	Preparatory review
EU-SMR-LFR	Consortium	LFR	300 MWth	Start up designer	Demonstration prototype	Romania	Review and Assessment
	Consortium	LFR	30 MWth	Start up designer	Experimental prototype	Belgium	Review and Assessment
NuScale VOYGR™ SMR	NuScale	PWR	250 MWth	Existing utility	Electricity production	Poland	Early dialogue halted
				Start up designer		Romania	Licensing
Nuward	NUWARD	PWR	540 MWth	Existing utility	Electricity production	Czech Republic	Joint Early review* completed
						Finland	Joint Early review* completed
						France	Joint Early review* completed National Review and assessment halted
						Poland	Joint Early review* completed
						Netherlands	Joint Early review* completed
						Sweden	Joint Early review* completed
Quantum	Last Energy	PWR	60 MWth	Existing utility	Electricity production	Netherlands	Early dialogue halted
				Start up utility		Poland	Early dialogue halted
				Start up designer		Romania	Early review
Rolls Royce SMR	Rolls Royce SMR	PWR	1500 MWth	Start up utility	Electricity production	Czech Republic	Review and Assessment
				Existing utility		Finland	Early dialogue (GDA observer)
				Start up utility		Netherlands	Early dialogue
				Existing utility		Poland	Early dialogue (GDA observer)
						Sweden	Early dialogue (GDA observer)
Thorizon	Thorizon	MSR	250 MWth	Start up designer	Cogeneration	France	Joint Preparatory review
						Netherlands	Joint Preparatory review

* Joint early review (phase 2) was performed by : CZ, FI, FR, PL, NL, SE