Iron-air batteries for grid-scale long-duration energy storage is looking for partners for early deployment

Summary

Profile type	Company's country	POD reference
Technology offer	**Netherlands**	**TONL20260203010**
Profile status	**Type of partnership**	**Targeted countries**
PUBLISHED	**Commercial agreement with technical assistance** **Research and development cooperation agreement**	**• World**
Contact Person	**Term of validity**	**Last update**
Sabrina WODRICH	**3 Feb 2026** **3 Feb 2027**	**3 Feb 2026**

General Information

Short summary

A Dutch Start-up develops Iron-air batteries for large-scale long-duration energy storage. Iron-air batteries store energy for durations of 24-100 hours, at extremely low-cost, with high energy density and without risk of fire through thermal runaway. They are looking for partners for deployment of early commercial systems (1-10 MW, up to 250 MWh). Application areas are co-located with renewables, grid connected or with large off-takers.

Full description

This energy storage start-up from the Netherlands, founded in 2023 develops Iron-air batteries for large-scale long-duration energy storage. Iron-air batteries store energy for durations of 24-100 hours, at extremely low-cost, with high energy density and without risk of fire through thermal runaway. Due to its chemistry and materials involved, it's possible to greatly lower costs and avoid relying on essential raw materials. This enables to not only manufacture the battery, but also source all its components entirely within Europe.

The technology is successfully deployed in the framework of 2 technology pilot projects, 1 in the Netherlands and 1 in France. The company is currently in preparation for their first-of-a-kind factory where they will produce their batteries at scale. Production in the factory will start mid-2027 and they are now looking for partners to jointly deploy the first batteries in the field. In addition to partners, they are also looking for suitable support national programs that can support these initial deployments and take away initial technology risk (e.g. capex subsidies) for high-TRL deployments (TRL 7-8).

Advantages and innovations

The batteries employ a new type of battery chemistry that is suitable specifically for long-duration storage and has extremely low cost. They have developed the technology further to overcome hurdles and make it suitable for mass production. Because of the relative simplicity of the chemistry and the materials, they can significantly reduce the cost and and the battery doesn't need any critical raw materials. This makes it possible to not only produce, but fully source the battery within Europe. Unlocking 24-100 hours of storage duration makes it possible to further integrate renewables into the system and further progress the energy transition.

Technical specification or expertise sought

Stage of development

Available for demonstration

Sustainable Development goals

- **Goal 11: Sustainable Cities and Communities**
- **Goal 7: Affordable and Clean Energy**

IPR Status

IPR granted

IPR Notes

Partner Sought

Expected role of the partner

The company us looking for partners that are eager to do deployments of this long duratiuon iron-air batterysystem at their site. This can be co-located with renewables, directly grid connected, or co-located with large-scale off-take. Initial systems can be deployed in 2027/28 and will likely be 1-5 MW in size.

Type of partnership

Commercial agreement with technical assistance
Research and development cooperation agreement

Type and size of the partner

- **R&D Institution**
- **Big company**
- **SME 50 - 249**

Dissemination

Technology keywords

- **04001003 - Storage of electricity, batteries**

Market keywords

- **06008 - Energy Storage**
- **06010002 - Energy for the community/public sector**
- **06010003 - Energy for Industry**

Targeted countries

- **World**

Sector groups involved