



GRID-SCALE ENERGY STORAGE PROJECT



TECHNICAL PROJECT MEMORANDUM

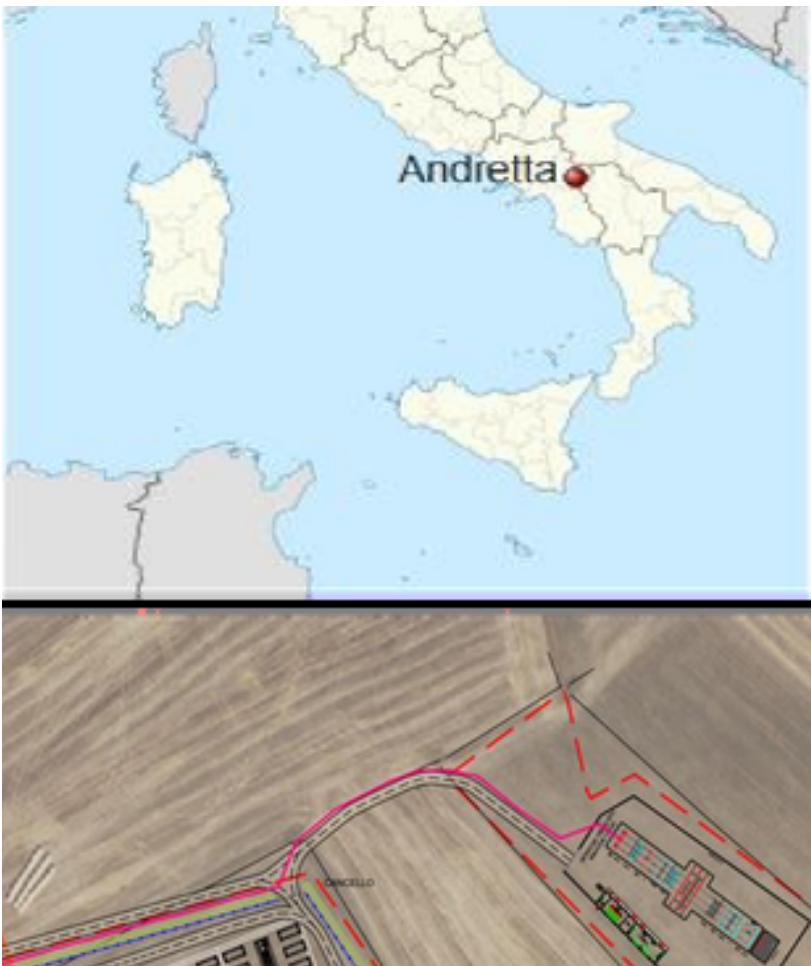
Battery storage project

Andretta, Campania

August 2026

Project at a glance

A 189 MWh battery storage project in Andretta, Campania, designed for a 150 kV connection to the Bisaccia substation.



NOMINAL POWER

47.268 MW

INJECTION POWER

43.5 MW

ENERGY CAPACITY

189 MWh

LOCATION

Andretta
AV, Campania

PTO STATUS

Obtained

TERNA APPROVAL

Q3 2026
Forecast

CONNECTION

150 kV underground

BESS → BAY

1.6 km

BAY → SE

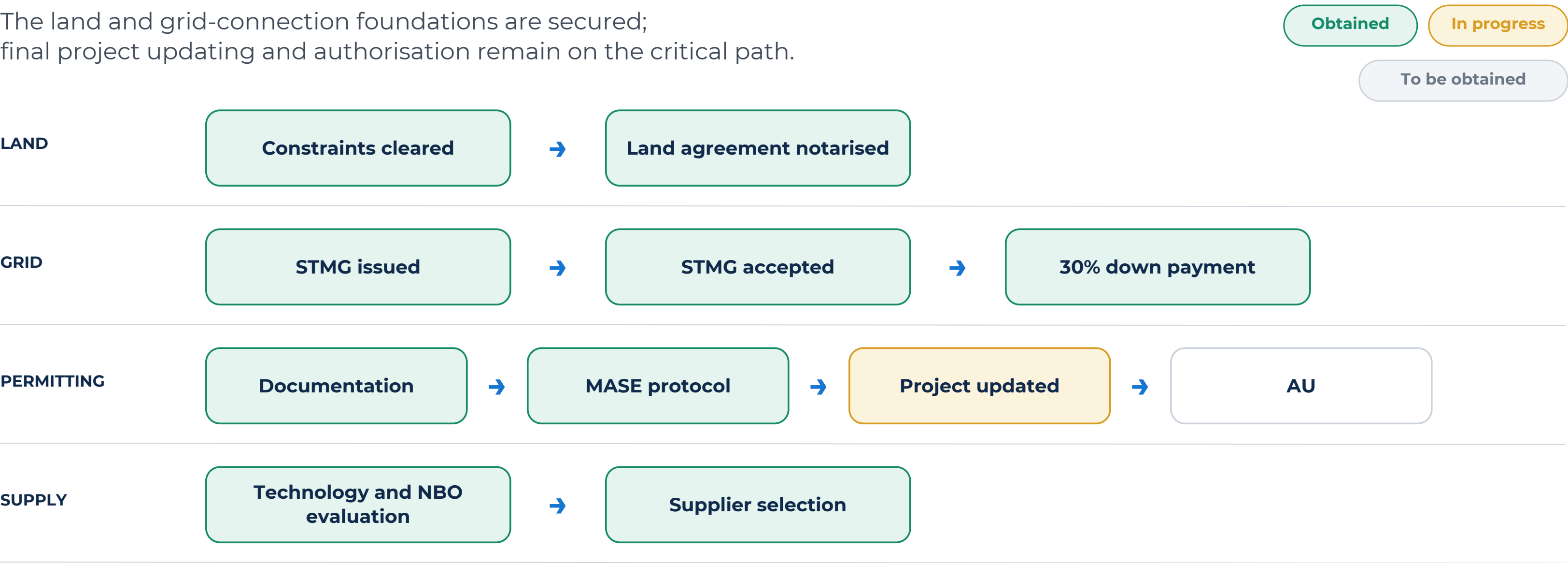
0.8 km

GRID NODE

Bisaccia 380/150 kV

Development pathway

The land and grid-connection foundations are secured; final project updating and authorisation remain on the critical path.



GRID-CONNECTION TECHNICAL SOLUTION	PTO COMPLETION	AU FORECAST
12–24 months	100%	Q3 2026

Power lines & PFTE

The electrical route is defined and the PTO is obtained; the remaining milestone is the forecast AU in Q3 2026.

CONNECTION CONFIGURATION

MV line	30 kV
MV line length	1.6 km
User substation bay	Yes
Shared substation	Yes
HV line	150 kV
HV line length	0.8 km
Leading organisation	No
Connection works	Bay on existing SE

PROJECT STATUS

Forecast conclusion – technical table	N/A
PTO status	Obtained
Forecast PTO achievement	Obtained
Forecast AU achievement	Q3 2026
Technical table – pre-feasibility	N/A
Technical table – PTO	N/A

PTO	CONNECTION	VOLTAGE	AU FORECAST
Obtained	Underground	150 kV	Q3 2026

Permitting — ministry consultations

Most consultations are non-binding inputs to the Ministry;
the Fire Department response requires a meeting and resubmission.

FIRE DEPARTMENT	Response provided; meeting to be organised; request to resubmit.	Action required
MIMIT	Non-binding opinion for the Ministry.	Non-binding
SUPERINTENDENCE	Non-binding opinion for the Ministry.	Non-binding
VPIA	Non-binding opinion for the Ministry.	Non-binding
ENAC	Non-binding opinion for the Ministry.	Non-binding
MUNICIPALITY	Non-binding opinion for the Ministry.	Non-binding
REGION	Non-binding opinion for the Ministry.	Non-binding

Permitting — additional authorities

SNAM and ANAS have issued favourable opinions;
the remaining authorities provide non-binding opinions to the Ministry.

PROVINCE	Non-binding opinion for the Ministry.	Non-binding
TRAFFIC AUTHORITY	Non-binding opinion for the Ministry.	Non-binding
BASIN AUTHORITY	Non-binding opinion for the Ministry.	Non-binding
ARPA	Non-binding opinion for the Ministry.	Non-binding
MILITARY COMMAND	Non-binding opinion for the Ministry.	Non-binding
SNAM	Favourable opinion.	Favorable
ANAS	Favourable opinion.	Favorable

Project overview

The outdoor BESS installation occupies approximately 0.7 hectares on an agricultural parcel in Andretta, Campania.



PLANT CONFIGURATION

- Six battery units, each with a pair of DC/AC inverters, a 9,400 kVA double-winding LV/MV transformer and 30 kV equipment.
- One control room located inside the BESS installation.
- A 30 kV cable network connecting the battery units, control room and shared User Substation.
- A 150 kV cable duct connecting the User Substation to the existing Terna Bisaccia substation.
- A perimeter fence and four double-leaf vehicular access gates.

AREA
~0.7 ha

BATTERY UNITS
6

CONTROL ROOMS
1

SITE SECURITY
Fence + 4 gates

Technical specifications

Avellino is designed to support capacity-market requirements and grid-stabilisation services.

INJECTION POWER	ENERGY CAPACITY	NOMINAL POWER	CONNECTION
43.5 MW	189 MWh	47.268 MW	150 kV

KEY TECHNICAL DATA

Plant type	Lithium iron phosphate BESS
Grid connection	Underground, 150 kV
Grid node	Existing Bisaccia 380/150 kV SE
BESS to installation bay	1.6 km

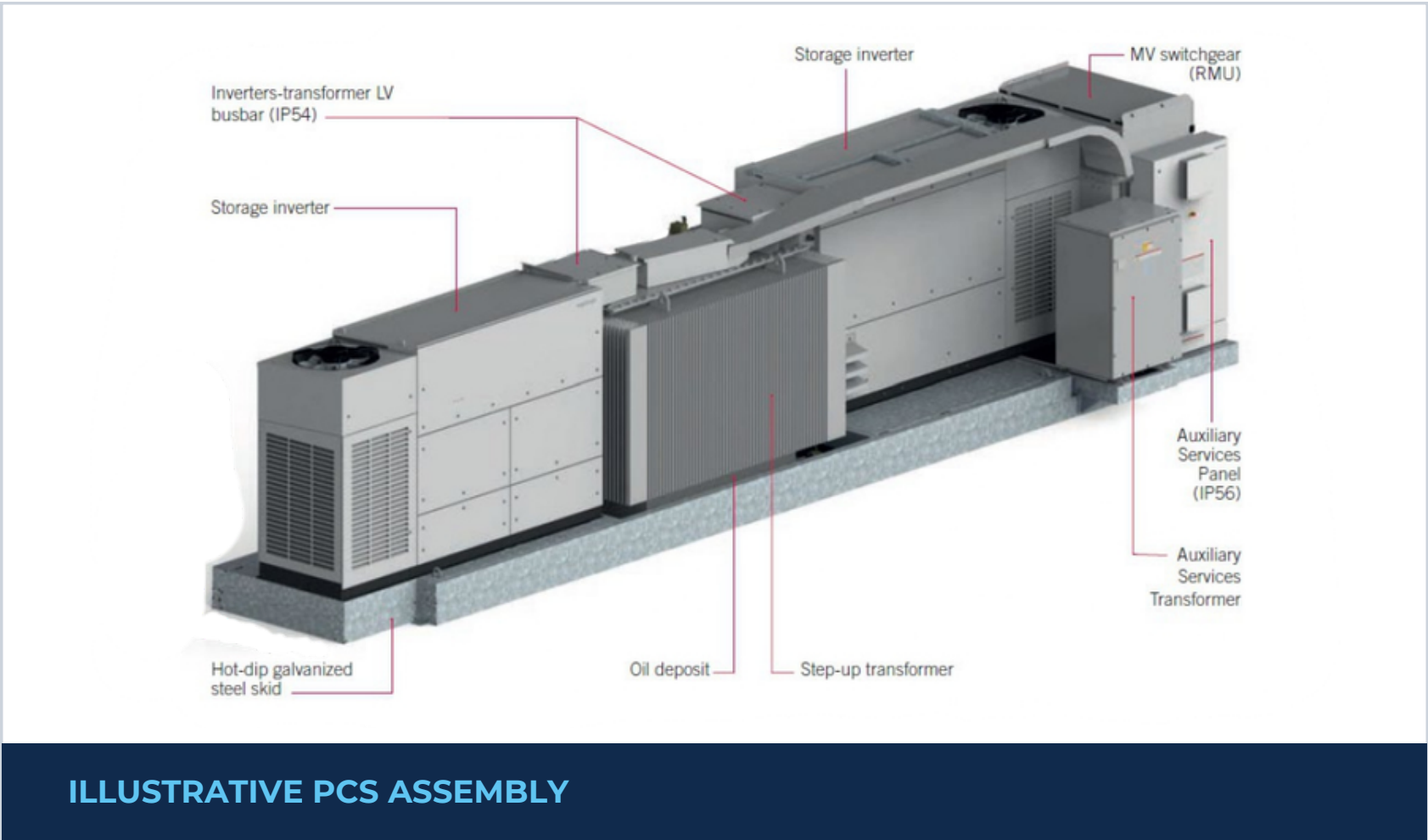
CONNECTION & APPROVAL

Installation bay to existing SE	0.8 km
PTO	Obtained
Terna approval	Obtained
AU forecast	Q3 2026

The connection design uses an underground 150 kV route to the existing Bisaccia grid node.

Power conversion system

The LiFePO₄ architecture combines high thermal stability with remote, centralised operation.



SYSTEM DESIGN

The storage system uses lithium iron phosphate technology, selected for greater thermal stability than other lithium-ion chemistries. Equipment and components will be designed, manufactured and tested to applicable national and international standards, supported by stringent quality-control procedures.

The plant is intended to operate primarily by remote control. A central control room will collect system signals and diagnostics, supporting safe and reliable operation without permanent on-site personnel.

PER BATTERY UNIT

2 × DC/AC inverters

TRANSFORMER

9,400 kVA LV/MV

SWITCHGEAR

30 kV MV equipment

Connection to the National Transmission Grid

The project connects in an antenna configuration at 150 kV to the existing Terna Bisaccia 380/150 kV substation.



CABLE NETWORK FUNCTIONS

- Low-voltage DC cables connect the batteries to the inverters.
- 30 kV medium-voltage cables run to the BESS control room and onward to the shared User Substation.
- Low-voltage AC cables supply auxiliary services.
- The 150 kV connection is made through a shared bay to the existing Bisaccia RTN substation.

CONNECTION STATUS

PTO obtained • 150 kV antenna configuration • Bisaccia grid node