

Telecom's dependence on Energy

5th NISDUC Conference

ANACOM Security Unit

May 2026



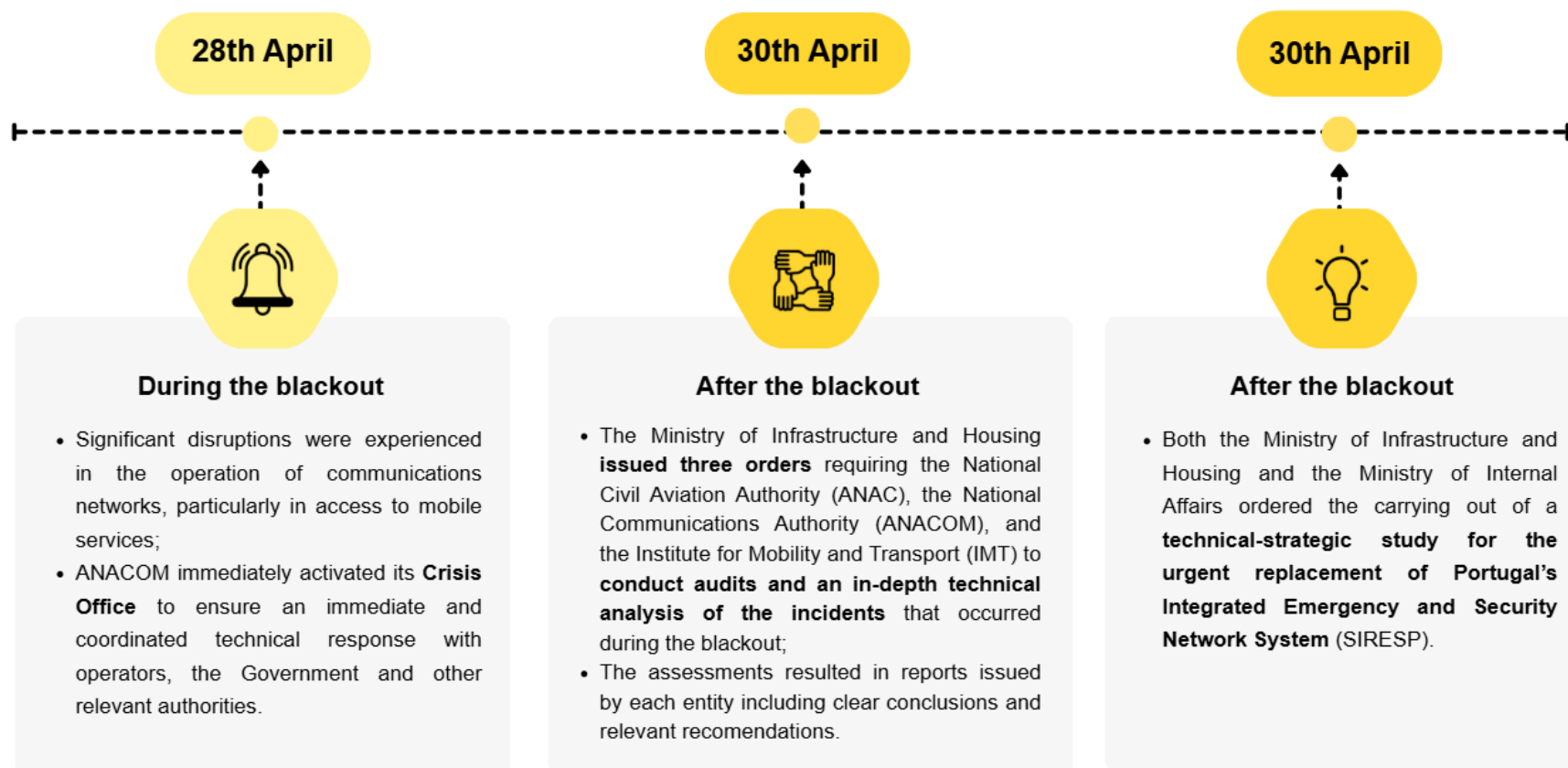
1. THE TIMELINE

2. DURING THE BLACKOUT

3. AFTER DE BLACKOUT

4. ANACOM'S RECOMMENDATIONS

1. The Timeline





2. ANACOM's action

During the Blackout

- **ANACOM** assumed a **proactive role** in monitoring the situation and mitigating its effects on the electronic communications sector;
- The Blackout had a **cross-cutting impact on relevant infrastructures** and **significant disruptions** impacted the operation of communications networks, particularly in **access to mobile services**, temporarily compromising the continuity of service to users;
- These constraints revealed the widespread power supply failure and the **dependence of these infrastructures on continuous electricity**.



2. ANACOM'S Crisis Office

During the Blackout



- ✓ Urgent **meetings with operators** assessed network status, key limitations, and service restoration progress;
- ✓ Furthermore, **alternative communication channels** and dedicated frequencies ensured operational contact between the Regulator and relevant entities.



3.1 ANACOM's audit

After the Blackout

- The audit conducted by ANACOM concluded that the prolonged blackout caused a cascade effect, with:
 - A **direct impact on the operation** of mobile and fixed electronic communications networks;
 - Affecting both **access to emergency services** and **communications between emergency services, authorities, and civil protection agents**;
 - The **emergency number** (112 in Portugal) **was severely restricted on fixed networks** but remained operational in situations where at least one mobile network was available, with **calls being forwarded to the Public Security Service Point (PASP)**;
 - Other conclusions were considered confidential, with only ANACOM's recommendations being made public.



4. ANACOM's recommendations

After the Blackout



- ✓ **Autonomy of emergency and rescue energy systems** (batteries and generators) and **definition of minimum autonomy time** for the various elements of the networks;
- ✓ Energy systems based on **renewable sources** to increase the autonomy, **reducing the need to install additional batteries**;
- ✓ Usage of **alternative means of communication** to those involved and responsible for crisis management;
- ✓ Adoption of **mechanisms for accessing mobile network services in emergency situations**
 - ✓ In this regard, a study is recommended for the adoption of a restricted set of SIM/eSIM cards to be used by authorities, civil protection forces, and critical operators;



4. ANACOM's recommendations

After the Blackout



- ✓ **Direct connection** of all mobile operators to the **PASP** – **diversification of the routing for 112calls**;
- ✓ Evolution of the public warning system to support **Cell Broadcast technology**, enabling greater **efficiency in the rapid and widespread dissemination of emergency messages**, regardless of the overload of mobile networks;
- ✓ **Access to information** on the functioning of electronic communications networks in real time;
- ✓ Implementation of **satellite redundancy**;



4. ANACOM's recommendations

After the Blackout



- ✓ Preparation of a **list of priority assets for the restoration of the electricity supply**;
- ✓ Access to the **strategic network of supply points** by electronic communications companies in situations of energy crisis;
- ✓ **Joint exercises** between companies, ANACOM, regulators and public entities, which include simulations of real scenarios.