Cybersecurity standards are a mix of I.C.T. interoperability and technical standards and professional or behavioural standards. They include standards from financial accounting, financial audit, I.T. audit, information assurance security, systems/network security, telephony/wireless security, intellectual property security and so on.

Standards are deeply studied in the Technical Report Deliverable 1 of Essence project: "Considerations on SCADA Standards", written by Ugo Finardi, Elena Ragazzi and Alberto Stefanini. According to this document, implementing security standards can be a big cost for private companies. Moreover, these costs cannot be evaluated reliably before the implementation of the measures. This implies that medium or small businesses are likely unable to afford implementing standards.

Another problem is that companies can determine the risk of sharing information on critical infrastructure information, but the benefit of implementing cyber security standards is much harder to be evaluated. Besides, the benefit is not only for the company but also for stakeholders involved and society in general, who have not to pay for it.

The only place where the implementation of standards has been carried out is the U.S.A. If Europe tried to develop similar standards, it would be easier as in Europe there are far less companies in the power system sector. Even though the competition is increasing and new small companies are being founded, mostly renewable energies plants, critical infrastructures are still operated by few companies. In many cases, transmission and distribution are controlled by the government, so the costs of implementing standards would be shared between private and public agents.

A problem which can arise in Europe which has not in the U.S.A. is that some companies have voluntarily adopted some security standards. These standards can be very different, and it can be difficult to come to an agreement on a common framework if some companies have already made big investments in security. Frequently, building a totally new security system can be cheaper than upgrading the old system.

In "Considerations on SCADA Standards", seven standards or guidelines have been compared. The NIST 800-53is the only standard which is fully developed and uses a terminology clear enough. If a standard is implemented, the European stakeholders have to be involved in the process.