**Challenges**

The campus grid is a complex system that provides energy to university campuses. Transforming it to a more sustainable and resilient system is an important challenge that many universities are facing.

As for IoT transformation，there are several issues that universities may face：

Data Security: With an increased number of IoT devices, there is a risk of cyberattacks and data breaches. Ensuring data security and privacy is crucial for successful IoT implementation.

Data Management: With a large number of IoT devices generating vast amounts of data, effective data management is critical to making sense of the data and identifying areas for optimization.

Compatibility: IoT devices and platforms may have compatibility issues with existing systems and infrastructure. It may be necessary to upgrade or replace current systems to accommodate new IoT technology.

Training: Staff may require specialized training to operate and maintain IoT devices, which may represent an additional cost for universities.

At the same time, the introduction of wind power systems will also face some challenges as follows

Aging infrastructure: Many campuses have outdated infrastructure that is in need of repair or replacement. Upgrading the grid to a more sustainable system requires significant investment and can be costly.

Lack of funding: Transforming the campus grid requires significant funding, and many universities may not have the necessary resources to undertake such a project. It can be challenging to secure funding for such a long-term project.

Complex ownership and governance structure: Many universities have complex ownership and governance structures that can make it difficult to make decisions and implement changes. This can slow down the transformation process.

Regulatory and policy barriers: There may be regulatory and policy barriers that make it difficult to implement changes to the campus grid. For example, some policies may favor traditional energy sources over renewable energy sources.

Overall, Improve the efficiency of electric energy utilization is a complex and challenging process that requires significant investment, expertise, and coordination. However, it is an important step in creating a more sustainable and resilient campus that can adapt to the changing needs of the future.