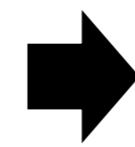


Electric Power-Hydrogen Management

Background

- Realization of sustainable resource and energy use
- 2050 carbon neutral



Effective use of renewable energy

Carbon recycling

Introduction

By using overloaded solar panels,
 (1) Increase the amount of electricity that can be used stably
 (2) Hydrogen production can be done with surplus electric power.



By using this method we can produce hydrogen at low cost.

Oversizing PV array

Regular;
e.g., 1.2 α kW



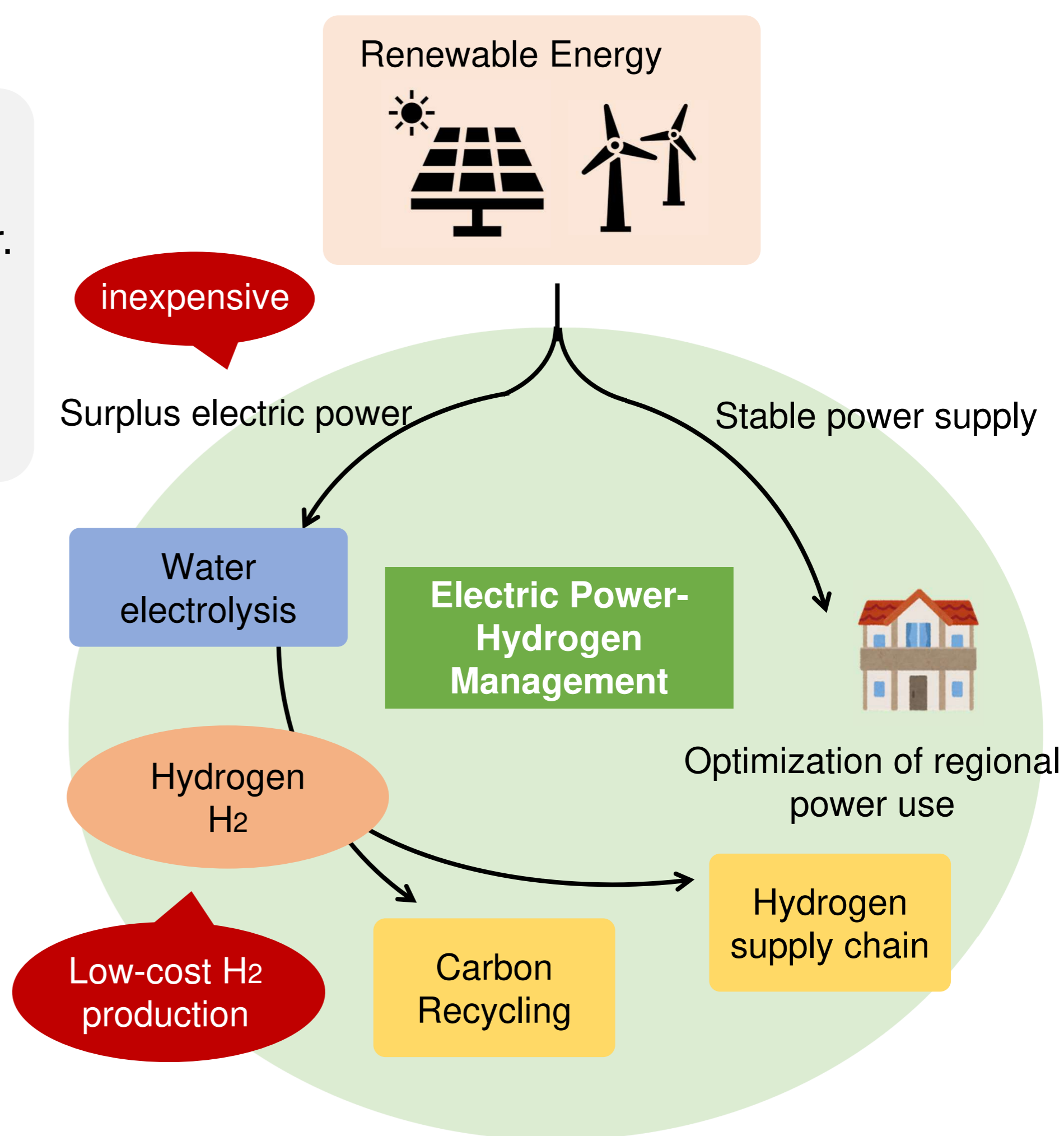
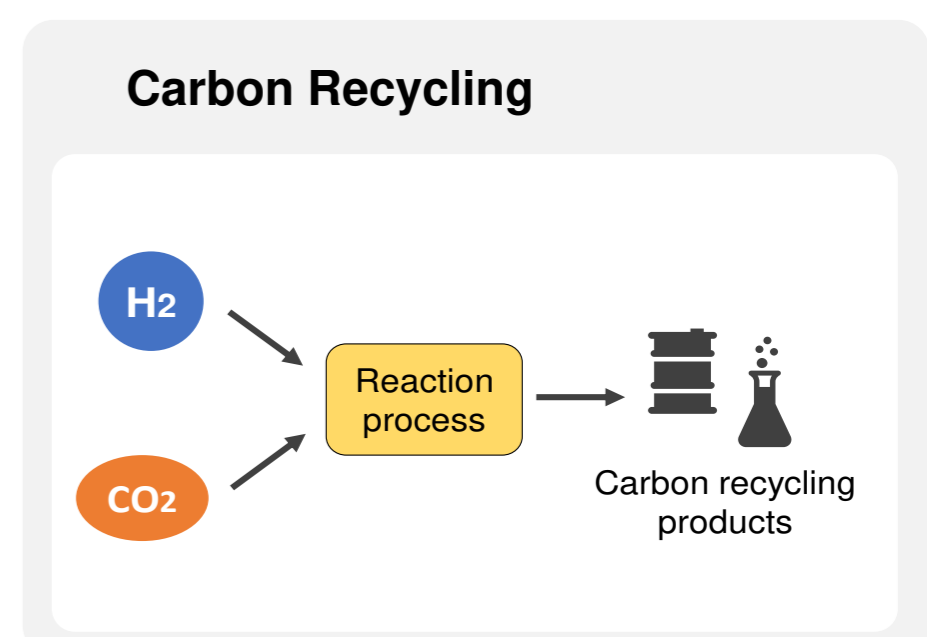
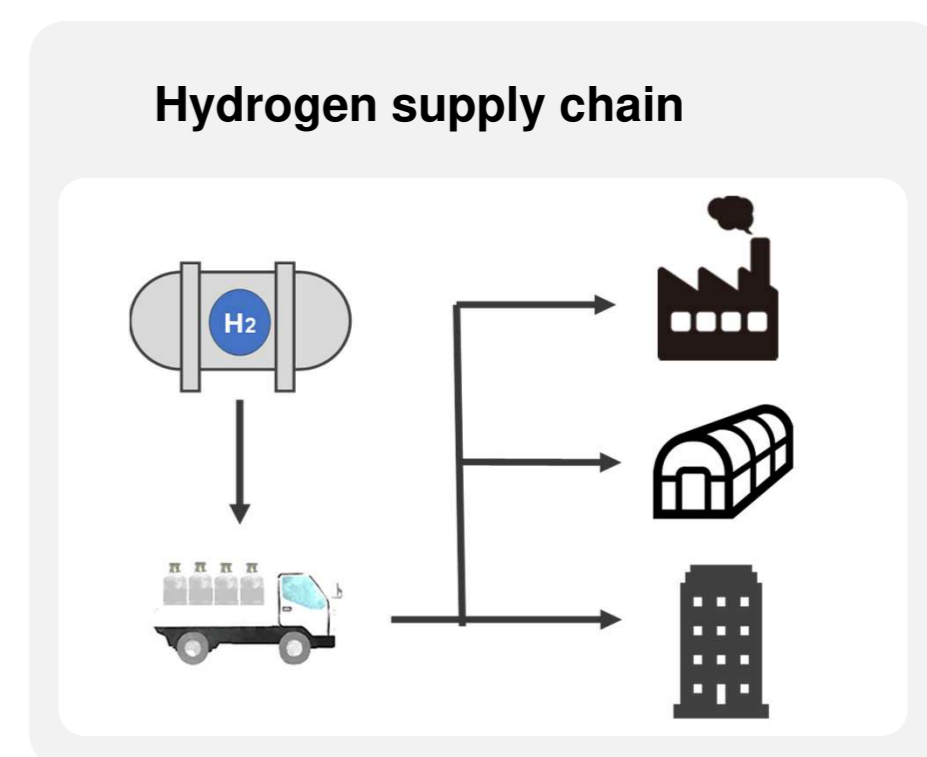
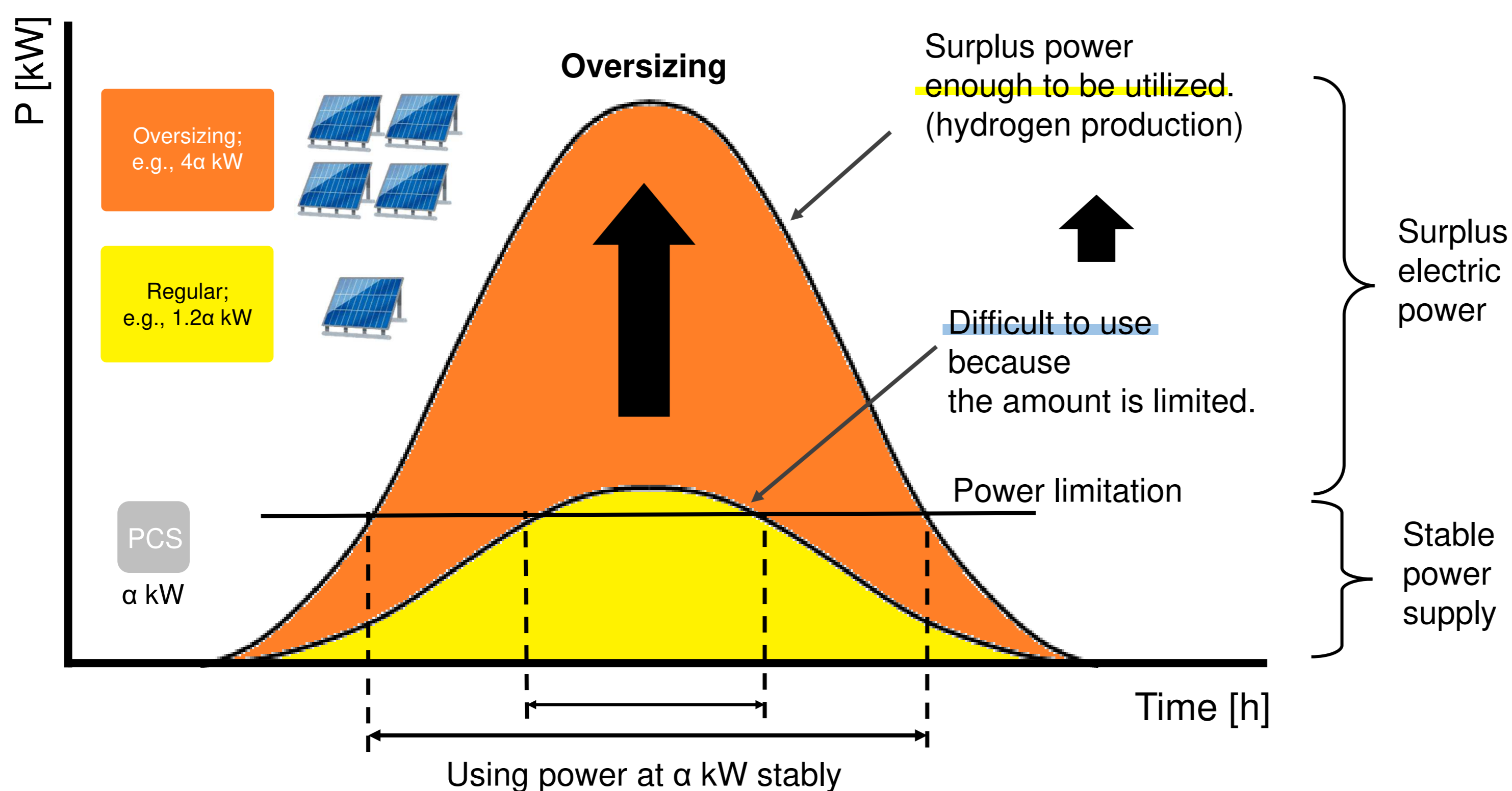
PCS

α kW

Oversizing;
e.g., 4 α kW



Value-based electric power separation



Conclusion

Effective use of renewable energy

- PV design/management: oversizing and value-based power separation
- Low-cost hydrogen production with inexpensive surplus electric power