

# AI-Driven Energy Innovation in Chinese Taipei

**Yu-Chi Liu**

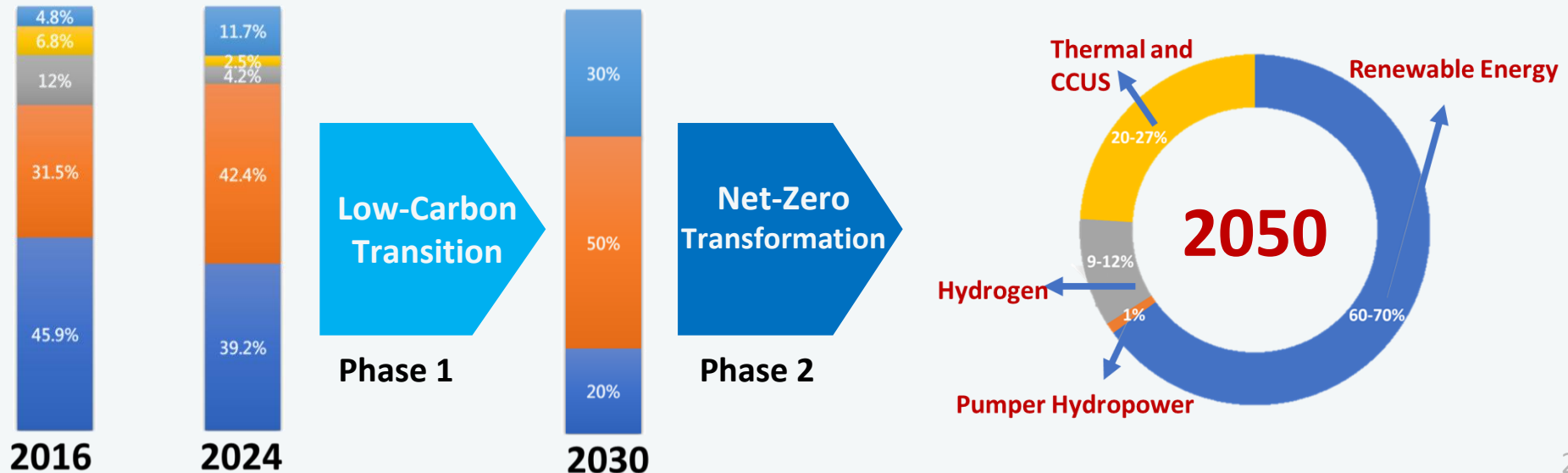
**Senior Planner**

**Energy Administration, Ministry of Economic Affairs  
Chinese Taipei**

# Pathway to Net Zero

Empowering the energy transition through diversify green energy source

By **2050**, the target is for renewable energy to account for **60–70%** of total power generation.



# AI Applications in New and Renewable Energy

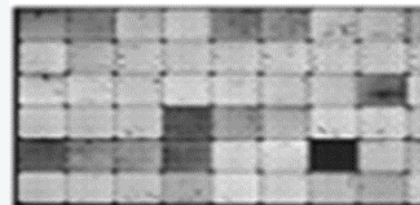
Integrating AI with engineering technologies to drive smart and sustainable energy innovation.

## AI-assisted Renewable Energy Development

### Solar PV

- AI-based inspection and early warning systems

### AI-Based PV Module Defect Detection



### Offshore Wind

- AI-driven inspection and predictive maintenance

### Independent Vehicle Inspection (Single-Function AI)



### Multi-Vehicle Synchronized Operation (Predictive AI)



### O&M to Energy Management Decision-Making (Decision AI)



# Conclusion

- ◆ Chinese Taipei targets 60–70% renewables to achieve Net Zero 2050.
- ◆ AI integration enhances renewable energy systems with smart generation, predictive maintenance.
- ◆ AI applications in solar PV and offshore wind improve safety, reliability, and operational efficiency.
- ◆ AI-powered transformation drives Chinese Taipei's smart, sustainable, and secure green energy transition to Net Zero.

# Thank You!



經濟部能源署

Energy Administration,  
Ministry of Economic Affairs