

Question: What are appropriate system performance metrics?

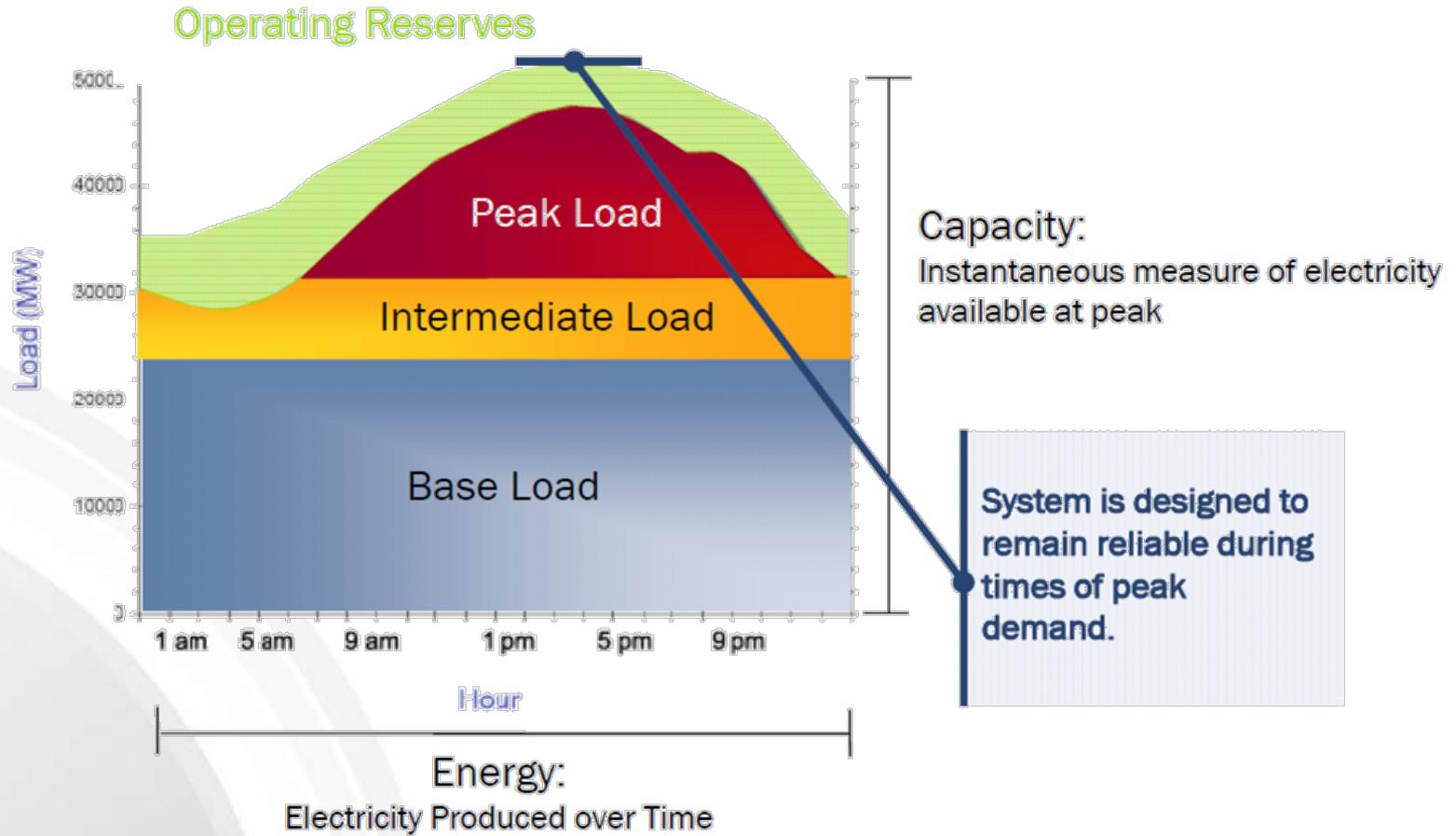
(cost/efficiency? CO<sub>2</sub> emission? reliability?)

Question: What are appropriate system reliability metrics?

N-1? N-4? Quality of Service? Other?

Question: Is low-cost energy storage a sufficient solution to the challenge of renewables integration?

Question: Approaches to safe & reliable reduction of operating reserves?



Question: What are market measures of system inefficiency?

- Spread between bid vs ask?
- Geographic variation in price for a single RTO?
- Price volatility?

Question: What is the state-of-the-art for ensuring security of the system?



Question:

How do security concerns change with high-penetration of renewables?



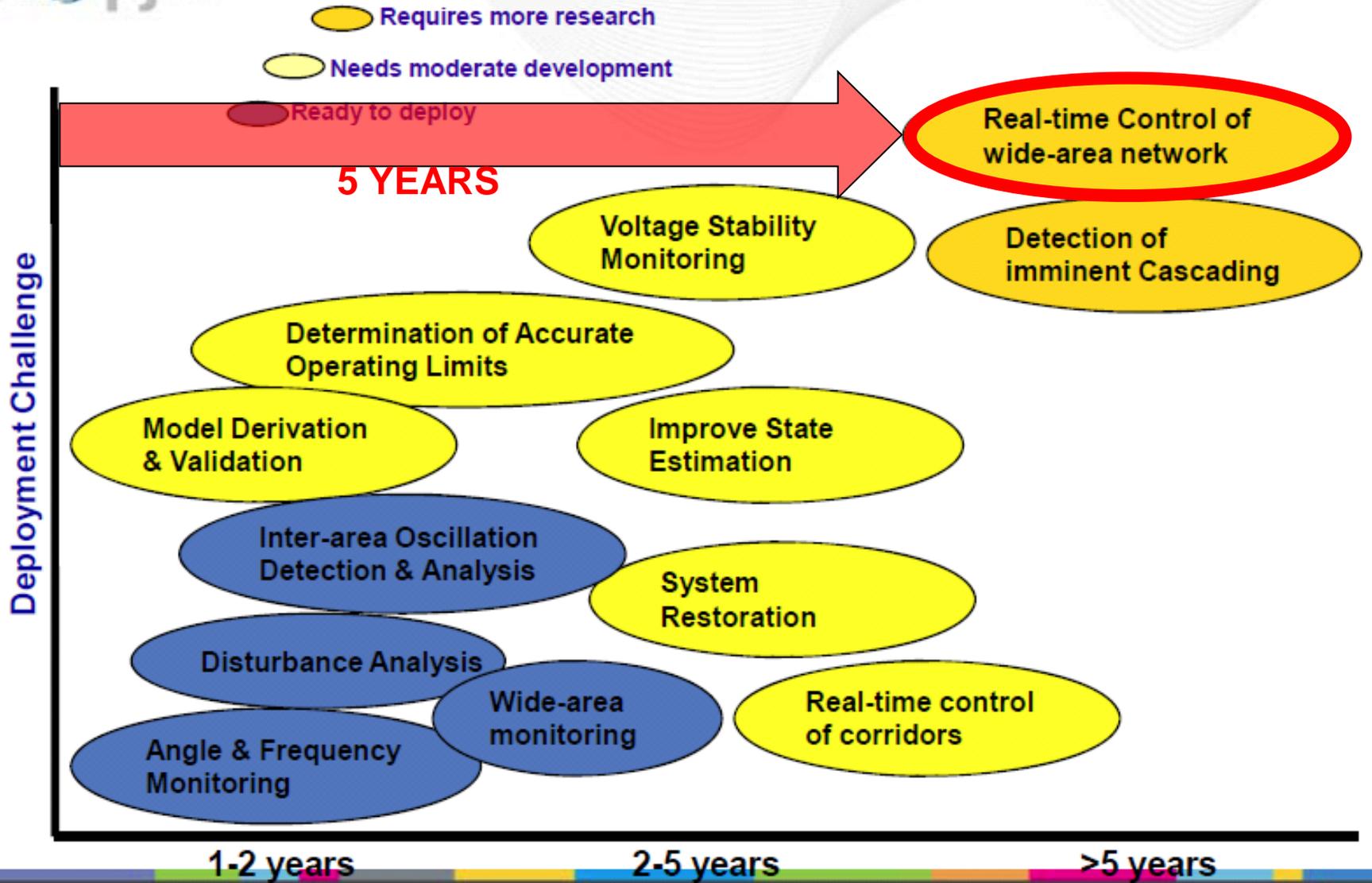
Question: If you could route electricity (actively control impedance of grid),  
what are the benefits?

(asset utilization? alternate control strategies? alternate market dynamics?)

Question: If you could color electricity (label power flows from generation to load), what are the benefits?

(asset utilization? alternate control strategies? alternate market dynamics?)

# SynchroPhasor Applications



Question: What are the drivers for implementing Wide Area Control?

- 1.
- 2.

Question: What are the challenges for implementation of Wide Area Control?

- 1.
- 2.

Question: What are the approaches to address these challenges for implementation of Wide Area Control?

- 1.
- 2.

Question:

What is the State-of-the-Art for transmission system dynamic modeling?

What do these models fall short?

Question: When is a microgrid a viable proving ground for control strategies?