

Report Out Slides

Stealth Hazards

(stressors to the social and built environment from
long term, evolutionary, uncertain events)

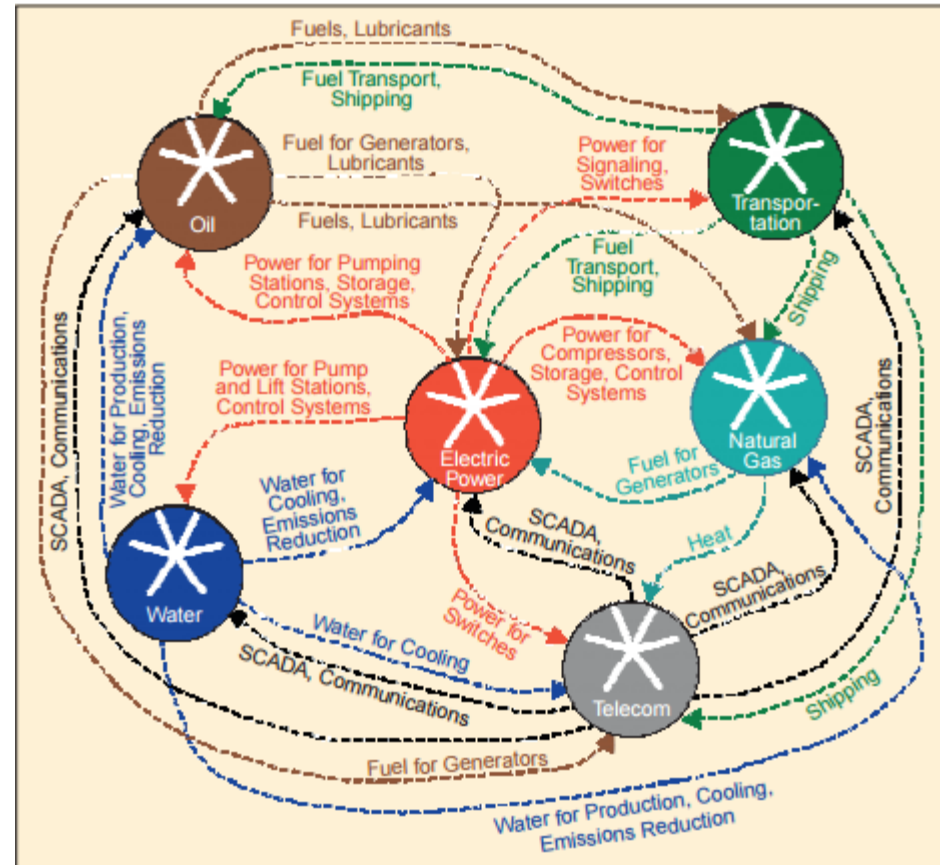
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Dependencies and Interdependencies

- Rinaldi, Peerenboom and Kelly*: Seminal paper on critical infrastructure dependencies and interdependencies
- Different types of dependencies:
 - Physical
 - Geographic
 - Cyber
 - Logical (e.g., human decisions like legislative actions)



* Rinaldi, S.M., J.P. Peerenboom, and T.K. Kelly, 2001, "Complex Networks, Identifying, Understanding, and Analyzing Critical Infrastructure Interdependencies," *IEEE Control Systems Magazine*, December 2001, pp. 11–25.

Interdependencies Breakout Question #1

- Given your hazard, what are the primary concerns with respect to interdependencies (i.e., different types of consequences)?
 - Motivation for communities to be more contemplative regarding stealth hazards
 - Long term social-technical interdependencies
 - We don't understand the interdependencies within the social structure
 - Implementation of a feedback loop to planning to adjust to changes in the environment and interdependencies
 - There is uncertainty in the sequence of events
 - Identification of economic single points of failure

Interdependencies Breakout Question #2

- How does your sector (standing committee) account for interdependencies with other sectors in the planning phase (not recovery)?
 - Might limit capital investment depending on health of other sectors
 - Highlight the fact that no economic activity will occur with the lack of critical infrastructure (i.e., energy, water, wastewater, communications)
 - Continue to collect lessons learned and consciously choose to act on those lessons
 - Understand implications of changes within the system on other operations of the system
 - There needs to be a whole community perspective when considering interdependencies

- How does your sector (standing committee) account for interdependencies with other sectors in the planning phase (not recovery)? (cont.)
 - Community planning activities for basic necessities (i.e., food, water, healthcare)
 - Community planning activities regarding vulnerable populations and health and welfare of those populations

Interdependencies Breakout Question #3

- How can the standing committees work together to address the interdependencies challenges that arise during this hazard event?
 - Long term strategies and plans for key infrastructure, major employers, local government, etc., and understanding the implications on the community
 - Create opportunities for all community members to discuss potential implications of stealth hazards:
 - Training and education
 - Exercising
 - Communications, social media ...
 - Create feedback mechanisms and plans to allow community members to continue to adjust to the changing landscape with respect to the hazards and interdependencies
 - Identify and monitor imbalances in interdependencies (e.g., case studies)

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