It's Not About ICS Security
It's Business Risk and Safety

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ICS Security: Friday News & Notes Email
Success Story In ICS Cyber Risk Management
Ukrainian blackout blamed on cyber-attack

December outage that affected 700,000 attributed to malicious 'DarkEnergy' software in first known case of hacking taking down energy network
Consequence: 225,000 customers lost power for 6 hours or less

First 5 months of 2017 US had 34 outages affecting over 50,000 customers

Including 1,345,000 for ~70 hours

https://www.youtube.com/watch?v=AUoiKZBqlo0
Questions Executives Ask

• Are we secure?
• Could that happen to us? (after the sizzle article of the day)
The infiltration of the Bowman Avenue dam represents a frightening new frontier in cybercrime. These were no ordinary crimes, but calculated attacks by groups with ties to Iran’s Islamic Revolutionary Guard and designed specifically to harm America and its people.

US Department of Justice
Questions Executives Ask

• Are we secure?
• Could that happen to us? (after the sizzle article of the day)
• If I spend the money you are asking for, can you guarantee we will be secure?
• If I spend that money you are asking for, can you tell me how much I have reduced risk from a cyber attack?
Myth: Senior Management Will Not Pay For ICS Security
Top Four Reasons For Funding Failure

1. You are hiding the risk (increasingly the biggest challenge is slowing down the Board / COO once they understand the risk)
   - A career limiting decision

2. You are not good at asking for money

3. You are not adapting to the risk management process

4. You are not able to explain the risk reduction achieved
Risk = Consequence x Likelihood
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Risk = Consequence \times Likelihood
Figure 7. Global Power Plant Fleet by Technology

Source: Power plant data source Platts UDI Database, June 2012
Note: Circle size represents installed capacity (MW).
Risk = Consequence x Likelihood
Identify High Consequence Events

• Consequence to the business, economy, environment
  – Not high consequence to your ICS or IT security program

• Good News ... this is likely already done
  – Process Hazards Analysis (PHA)
  – Safety or Protection Studies
  – Risk Management activities
Second biggest way IT and IT Security can help ICS and the process is:

Identify how a cyber attack or cyber incident could cause a high consequence event

Adding Cyber to the PHA / Safety Analysis
Risk = Consequence \times Likelihood
Huge Consequence Reduction

Motion
Is it possible for an ICS cyber attack to cause a catastrophic event for your company?

Can you reduce the consequence?

Then know the attack paths, security controls and work the risk management process
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