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Strategic Integration of Cybersecurity in Power Transmission Systems for Enhanced Grid Resilience

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Abstract: As the role of power grids in society increases, cyber threats targeting them are also surging. Thus, power grid companies must enhance the cybersecurity status of their power supply systems. This writing asserts that comprehensive power grid cybersecurity must have prevention mechanisms, detection technologies, and response strategies. These mechanisms can be implemented at four levels: device and application security, network security, physical security, and policies, procedures, and awareness.

Keywords: power grid, power supply system, cybersecurity, hackers, security

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