



The World Is Changing

What About You?

Safety and security of critical energy infrastructures

Cyber Resilience Forum | 10.05.23
Romanian Energy Center Association

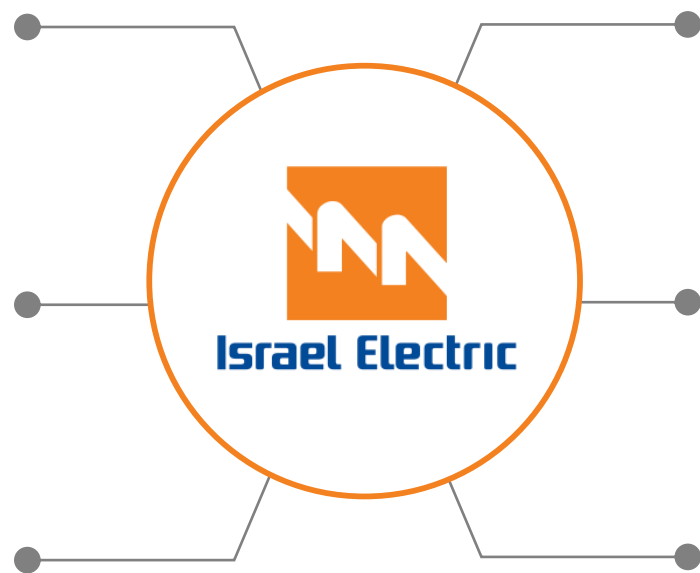
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The Israeli Electric Corporation (IEC)

The dominant and critical provider of the national electricity system

An energy island

Extreme changes in grid requirements



Responsibility across all elements of the electricity system: generation, transmission, distribution, and supply

Challenging geopolitical conditions

One of the most cyber attacked companies in the world

Israel is ranked 8th in the world on Country's Performance in Providing Reliable Access to Affordable Energy

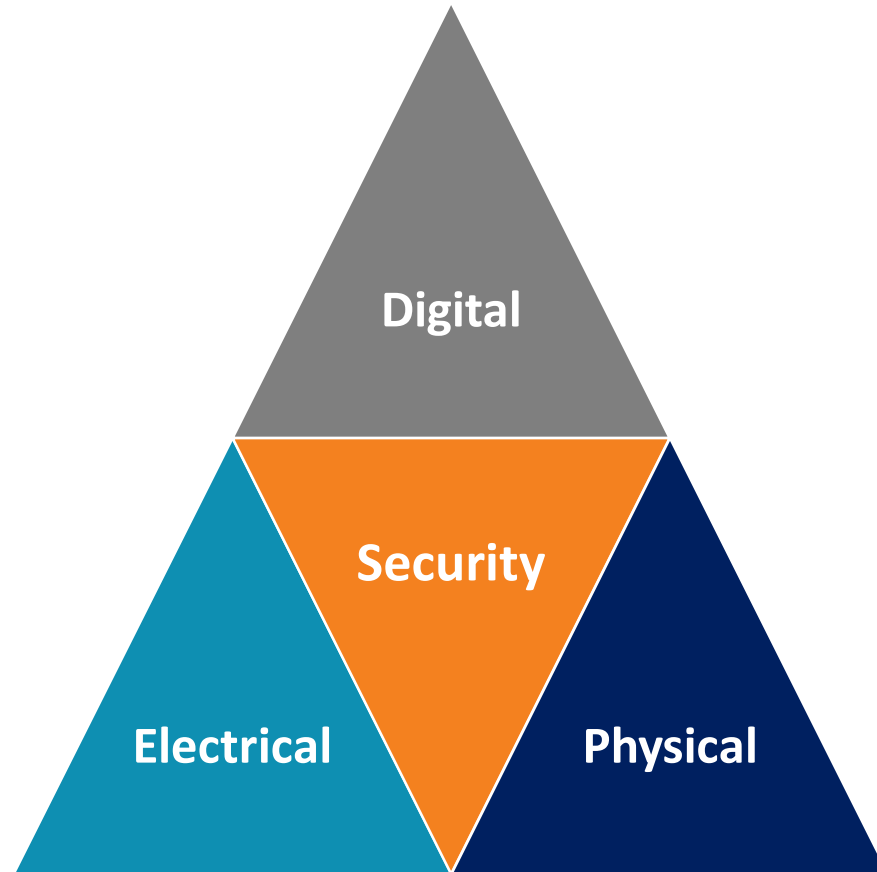
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New Challenges for Power Utilities' CISOs



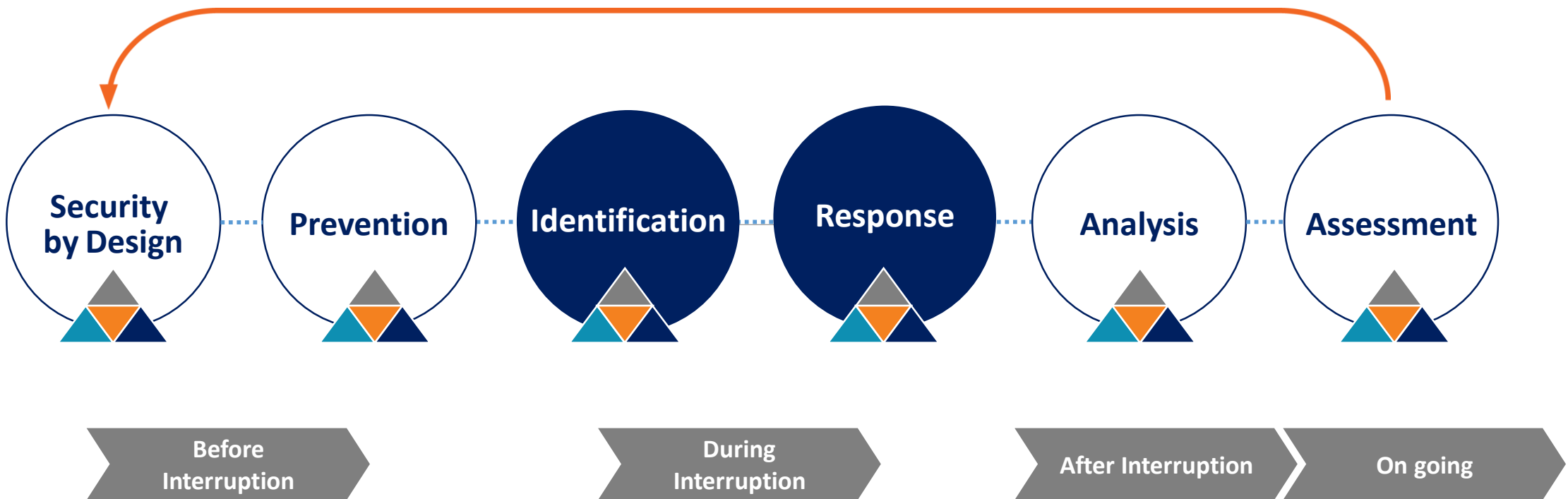
IEC's 360° Electricity System Security Concept

Energy security: The capacity to avoid adverse impact of energy disruptions caused either by natural, accidental or intentional events affecting energy and utility supply and distribution systems (US DoD).



Security Lifecycle Architecture

Providing reliable and sufficient electricity, before, during and after power interruptions



A comprehensive approach that addresses the electrical, cyber, and physical threats

	Before interruption		During interruption		After interruption	Assessment
	Security by design	Prevention	Identification	Response	Analysis	On-going
Electrical	<ul style="list-style-type: none"> Identify electrical assets Implement physical security Design security architectural program 	<ul style="list-style-type: none"> The continuous protection of electrical assets Identify security & safety of assets CSM security and risk 	<ul style="list-style-type: none"> Accurate full location identification & location Real time cross analysis of electrical anomalies Accurate behavior detection 	<ul style="list-style-type: none"> Low time warning methodology Accurate false location estimation system Dynamic monitoring response profile 	<ul style="list-style-type: none"> Post interruption data analysis Power quality monitoring and analysis 	<ul style="list-style-type: none"> Power Quality Services Validation of electrical system disturbance System's primary monitoring & IT analysis Usage energy security assessment
Physical	<ul style="list-style-type: none"> Identify physical assets Implement physical security methodology Design security architectural program CSM security assessment 	<ul style="list-style-type: none"> The continuous protection of physical assets CSM monitoring to enable threat prediction CSM & intrusion technology analysis CSM security and risk 	<ul style="list-style-type: none"> Real time identification of physical assets Accurate full location identification and location detection 	<ul style="list-style-type: none"> Temporal physical geo estimation methodology in different areas Emergency control center Real location mobile tracking & tool for accurate work & change the location 	<ul style="list-style-type: none"> Post interruption data analysis Power loss warning to threat Post interruption visual & thermography warning 	<ul style="list-style-type: none"> Power physical security methodology service and installation, (case etc.)
Cyber	<ul style="list-style-type: none"> Identify cyber assets and critical cyber assets Classify assets Implement cyber security architectural program Design security architectural program CSM security assessment 	<ul style="list-style-type: none"> CSM analysis of operational systems Monitor remote access to operational environment Identify & classify Threat intelligence 	<ul style="list-style-type: none"> Cyber signature analysis methodology to enable & emergency work Real response (IT) integrated security Operation Center Accurate detection & forecast 	<ul style="list-style-type: none"> Mobile process methodology & detection Incident response service Advanced signature 	<ul style="list-style-type: none"> Dynamic cyber digital asset operational & cyber work analysis Cyber detection improvement program 	<ul style="list-style-type: none"> Usage continuous cyber address assessment Structure and validation of operational processes & systems in a day-to-day basis

360° Energy Security Benefits



Business Supporting Operation

Thank you

