

The background of the image is a night-time photograph of the London skyline, featuring the illuminated Big Ben clock tower and the Houses of Parliament. The scene is set against a dark blue sky with several bright, diagonal blue light beams. In the center, the text 'EIS SUMMIT' is displayed in a clean, white, sans-serif font. To the left of this text is a circular logo composed of numerous small, light blue dots of varying sizes. Below the main text, the word 'Welcome' is written in a large, elegant, dark blue cursive script.

EIS
SUMMIT
Welcome

Next Steps: Defining a Framework for International Coordination

Avi Schnurr

President, Electric Infrastructure Security Council



The Problem

Infrastructure Vulnerability

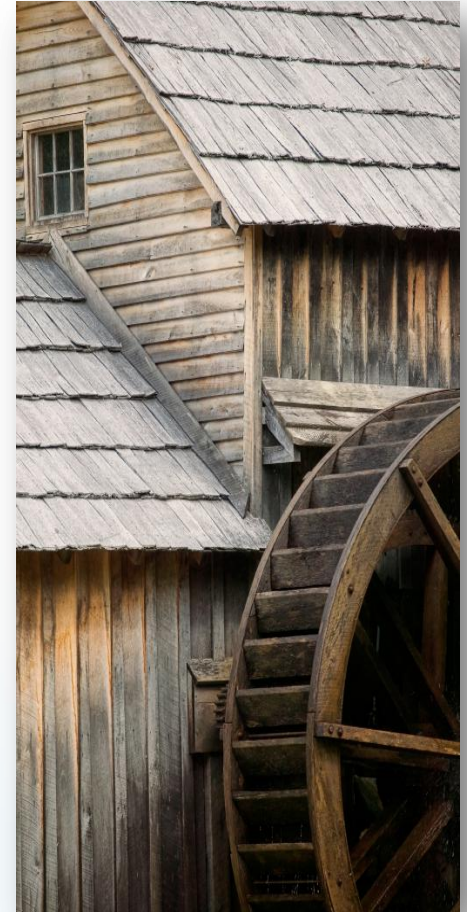
Yesterday

Computer control systems
in vital infrastructures

Critical electric infrastructures

0 %

Some



The Problem

Infrastructure Vulnerability

Today

Computer control systems
in vital infrastructures

100 %

Critical electric infrastructures

All



The Problem

Infrastructure Vulnerability

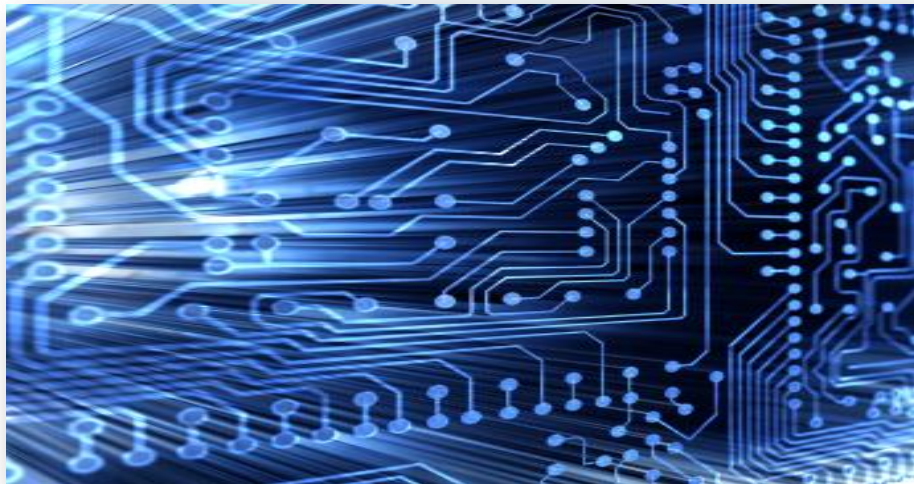
EMI Hardened Infrastructures

Military

Some

Civilian

~ 0%

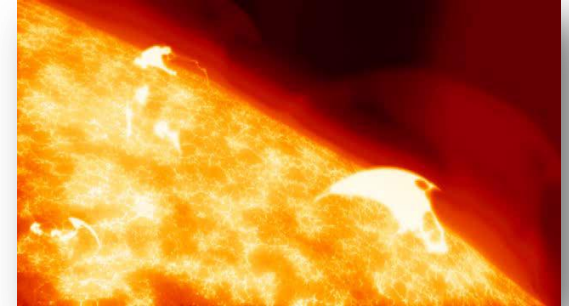


The Impact

Consequences

Century-class solar flare or EMP: Effect on national grid

- Severe damage or complete burnout



Sources:

U.S. Congress EMP Commission – Executive Summary, 2004

U.S. Congress EMP Commission – Final Report, 2008

U.S. Congress Strategic Posture Commission – Final Report, 2009

NASA / National Academy of Sciences – Severe Space Weather Report -- 2009

U.S. Department of Energy / NERC -- HILF Report, 2010

U.S. Congress – Unanimous House passage of **Grid Act** - 2010

U.S. Federal Energy Regulatory Commission / DOE / DHS Report – Sept 17, 2010

The Impact

Consequences

Scope:

- Severe damage or permanent destruction of all life-critical societal infrastructures.
- Environmental devastation

Area: National, regional or global



Transformer damage from moderate solar flare – S. Africa



Oil refinery fire



The Solution

Upgrade and hardening

“Correction [of the vulnerability] is feasible and well within the nation’s means and resources to accomplish.”*

*U.S. Congress EMP Commission

The Solution

Upgrade and hardening

Fundamental Government Obligation

“Prudent precautions to protect the common welfare.”

Critical infrastructures are the foundation of public welfare.



The Solution

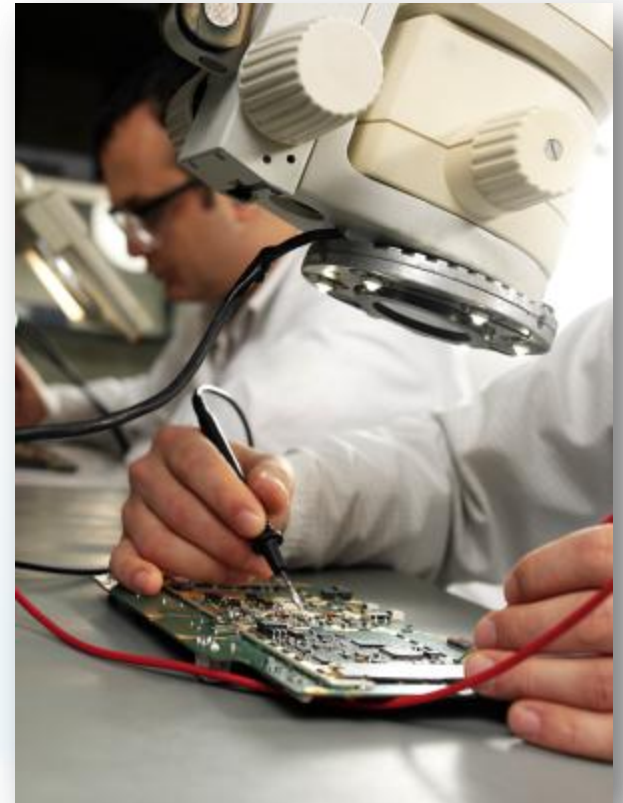
Upgrade and hardening

Technology for EMP & Solar Flare Protection:

1960 – 1990: Four decades of investment in military protection against EMP

2000 – 2010: + Ten years investment to develop infrastructure protection approaches

Today: This phase is complete.





The Solution

Upgrade and hardening

**Rough estimate: Cost
to protect the grid**

Less than 0.01% GNP

The Solution

Upgrade and hardening



Nations that upgrade their grids in time will prevent permanent burnout of their critical infrastructures

Implementation

The Role of the new EIS Process

The E.U., the U.S. and allies face an unprecedented, devastating threat

We have an unknown window of opportunity.

International coordination and cooperation will be vital





Implementation

The role of the new EIS Process – A new infrastructure security framework

Mission and Operating Plan

Background

Severe Solar Flares: According to a recent study by the U.S. National Academy of Sciences, solar activity in modern times has been unusually low. Severe solar flares – at a level that would burn out the electric grids in most countries – have occurred about once per century. It has been 150 years since the last occurrence.

EMP: After eight years of unprecedented modeling and hardware tests, the U.S. Congress EMP Commission found that modern electric infrastructures have become uniquely vulnerable to electromagnetic attack. The Commission concluded that a single ship-launched nuclear missile could permanently destroy most electric infrastructures in a targeted nation or continental region.

Impact: If either of these events occurs, those nations that have not taken basic, prudent steps to protect their infrastructures will suffer unprecedented devastation.

Mission

A new international security framework: The Electric Infrastructure Security Summit Process is a first step in a new security framework. The EISS Process will foster international information sharing, discussion, coordination and cooperation in assessing and protecting national infrastructures against physical threats such as EMP and Severe Geomagnetic Storms.

Operating Plan

Assessment and Communication: Senior government representatives from the E.U., the U.S. and allies and friends will meet twice yearly to assess status and progress, and to foster government-to-government communication on developing options for cooperation in infrastructure protection.

Development: The EISS Process will proceed on two tracks, with representatives designated from each interested nation.

One: EISS planning will be guided by the EISS Executive Steering Committee.

Two: The EISS Working Group will develop a milestone-based roadmap and options for a multi-national grid protection plan.

Size and makeup of national delegations on the Executive Committee and the Working Group are at the discretion of each participating nation.

The 2nd EIS Summit

EISS-Washington D.C. will take place
11 April, 2011 in the Capitol Building, U.S.
Congress, Washington D.C.



Mission and Operating Plan



Implementation

The Role of the new EIS Process

Operating Plan

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Founding membership

All EISS government delegates are founding members of the Executive Steering Committee and the Working Group.

Please advise us if you wish to recommend a replacement or nominate others for one of the committees.

EISS Washington D.C. The 2nd World Summit on Infrastructure Security

11 April 2011

*Please plan to attend
or send an alternate*

Miss

Backgro

Severe Sol
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been 150 ys

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modeling an
EMP. Core
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Mission

A new inter
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is a first step
EISS Process
sharing, disc
in assessing
turos against
Severe Geor

London, 1666

The Great Fire of London.

Infrastructure protection:

None

Consequence:

**90% of the city
destroyed.**



**“A nation that forgets
its past has no future”**

- Winston Churchill



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