

# What you don't see can kill you!

## Reducing the risk of line-of-fire incidents

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NERC Human Performance  
Conference

Monika Bay, BGE  
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**TEAM**   
**SIFT**  
Serious Injury & Fatality Prevention Team



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# Why it's a big deal!

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BGE line-of-fire incident  
data and photos removed



# Why it's such a challenge

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- Lifting / hoisting / rigging
- Objects with fall potential
- Objects with roll potential
- Rotating equipment
- Objects with sharp edges
- Pressurized tools / equipment
- Energized equipment / blasts
- Spring-loaded / tensioned devices / lines
- Etc.....



**Line-of-fire threats  
are widely varied,  
dynamic and  
inherent in nearly  
all work tasks**

# What gets in the way?

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We don't recognize the threat or we identify it too late

We believe we have to place ourselves in the line of fire in order to get the job done

We don't believe we are placing ourselves in real danger

We believe PPE will protect us

We believe the time of exposure is small enough to protect us

What gets in the way?

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**It's the way our  
brain assesses and  
manages risk that  
makes us vulnerable**



Disrupts

# Risk Monitor

Engages

## System 1

Subconscious

Automatic

Fast

Easy / Eager

Error prone

Instincts  
Impressions / Feelings  
Routines

## System 2

Conscious

Deliberate

Slow

Hard / Lazy

Hates to be wrong

Thoughts / Beliefs  
Critical thinking  
Self control



# What we learned about line-of-fire

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Highest probability of LOF injury is when we don't anticipate the threat

30%

...because our Risk Monitor doesn't fire, and so System 2 never engages





Solution: **Anticipatory threat management**  
*Strengthening the 3 voice conversation*

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- **Strengthen your Risk Monitor so that it fires**
  - Caught in
  - Struck by
  - Energy released
- **Make sure System 2 is in control when taking action**
  - Eliminate risk **OF** the event
  - Mitigate risk **WITHIN** the event



# Anticipatory Threat Management – Bringing it to life

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