



# Supporting and Strengthening Operator Awareness and Engagement

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NERC Improving Human Performance on the Grid

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In many ways, human beings are like components on the grid. They each have their tolerances and optimal ranges of function.

If you interconnect them well, you can build a strong, reliable and self-healing system. Conversely, you can create sub-synchronous resonances by incorrectly interconnecting them: in this you create inefficient circuits that waste energy and time, and create heat, risk and cost.

Managing people is no more and no less than being an organizational reliability coordinator.

# The State of Things

### The Changing Control Room

The “typical operator” is changing:

(hands-on experienced → classroom educated)

- Higher volumes and speeds of data
- New hardware and software technologies are moving energy and market management closer to real-time (e.g., synchrophasors)
- Higher proportions of intermittent resources and new constraints (e.g., subsynchronous resonances, etc.)

### The Changing World

Our world is more internet-connected and real-time:

- “What happens on the internet stays on the internet... forever.”
- Social media is changing communications and introducing both benefits and risks
- Existing sources of pressure are still persistent
- Job market and employee expectations
- “Oops...” example (medical malpractice)

### The Changing Psychology

#### Emerging field of positive psychology

- Corporate culture and employee engagement are key
- Fear suppresses
  - Creativity
  - Motivation
  - Positive ownership
- Employee management is a skill, not just the next title change or compensation strategy
- Need for cost reductions: health care, PTO, other risks

# What We're Doing

### Addressing the Changes

- Rules
- Engagement
- Training methodologies (positional training, EDP, Rotational Programs)
- Investment in personnel: success (individually) fosters success (organizationally)
- Support of reasonable intrapreneurship with a pipeline framework
- Integrating Psychology



Rule the Rules (or, as we called it):

Clean out the Garage (we need all those boxes of old things why, again?)

1. Unnecessary rules, processes and procedures suck the life out of an organization
2. So, let's review key policies and procedures and focus on short, easy to read and remember text that engages
3. Turning documents into resources and guides that focus on the positive

“People are too busy doing meaningful things to do things without meaning”

### Rule the Rules:

#### e.g. Dress Code

## NOT

**x.9.1 Purpose:** The Company has adopted a casual dress code. Every employee must dress appropriately to maintain the benefits associated with a casual dress environment. The Company has many visitors and guests and, consequently, all employees should be aware of any business meetings and dress appropriately during those times. Employees should always dress in compliance with safety regulations.

Managers are expected to ensure employees dress in appropriate attire and may adjust the dress code to meet the business needs of a department.

Whenever business dictates, more professional business attire is required and each employee should dress accordingly, for example on Board of Director meeting days at the Met Center.

**x.9.2 Examples of Casual Attire:**

- Collared shirts, polo shirts, dress pullovers, blouses with sleeves and sweaters Casual dresses or skirts, denim skirts
- Casual slacks, pants (various lengths – below knee level)
- Jeans (not torn, patched or frayed)
- Casual shoes, boots, appropriate sandals

**x.9.3 Inappropriate Attire:** Certain clothing is inappropriate for the work environment at any time. Specific examples of inappropriate attire include, but are not limited to, rubber flip flops, muscle shirts, shorts, caps, torn, patched or frayed jeans, sweat pants or exercise attire, clothing which is extremely tight fitting, low cut or sheer and any clothing with offensive writing or pictures. Public interfacing positions will have additional dress code restrictions.

Rule the Rules:

e.g. Dress Code

**BUT INSTEAD**

### **Personal appearance**

In general, ERCOT has a “casual dress” policy, but in day-to-day practice, we have a “dress to be effective” policy. Managers are expected to ensure employee dress and appearance is appropriate to meet the business needs of the department. Standards for appropriate dress may vary among groups within the company. If you observe dress that troubles you, bring it to the attention of your manager for discussion. If you are concerned about whether what you are wearing is OK, it never hurts to look around and consider what the folks around you are doing, and use your best judgment.

### Culture/Engagement Initiatives

Overall message: “What you think, feel and need really matters.”

- Personnel are people: take that into consideration
- Devote full-time resources to communicating and engaging
- Have communications media that imparts not just information, but tone of engagement
- Make engagement philosophy part of recruiting and professional materials

### Culture/Engagement Initiatives

*Respect what people do and respect their time:*

*“Don’t just call a meeting; respect start and stop times, have an agenda, talk and listen with respect.”*



### Quality of Life Fosters Quality of Work

- On-site gym and fitness classes
- Walking/jogging trail around the campus
- Sports court
- Encouragement of off-campus activities (softball, golf)
- Cooking classes
- Better coffee (now with standing ovations)
- Health challenges
- Positive ROI on satisfaction, decreased healthcare costs

### Culture/Engagement Strategies

- Provide tools for ALL employee input and respond effectively
- Replace command and control mindset with confer and trust (telecommuting, work schedule)
- Promote a campus atmosphere of “home away from home” (E-List, catering, gym, ping pong)
- Encourage team-building events
- Re-imagine large-scale meetings (inspirational over informational)

### Culture/Engagement Strategies

- Transparent Suggestion Boxes
  - Anonymity in submission (if desired)
  - Public responses that engage
- Team building events:
  - Movie afternoons
  - ERCOT Games
  - Health Fair
  - Volunteer opportunities
  - Education/mentoring opportunities





### Culture/Engagement Strategies



Save the Date...  
**2013 Health and Wellness Family Event**  
Saturday, October 5<sup>th</sup>  
10:00 a.m. to 3:00 p.m.  
Old Settlers Main Hall

Complimentary biometric screenings and flu shots, an array of health and wellness vendors and so much more. More details to come!



**Let's Beat the Heat!**  
**Employee Events Committee**  
*is serving*  
**Blue Bell Ice Cream**



**Thursday, May 30<sup>th</sup> - T2 Peace Room, 2:00 - 3:00 p.m.**

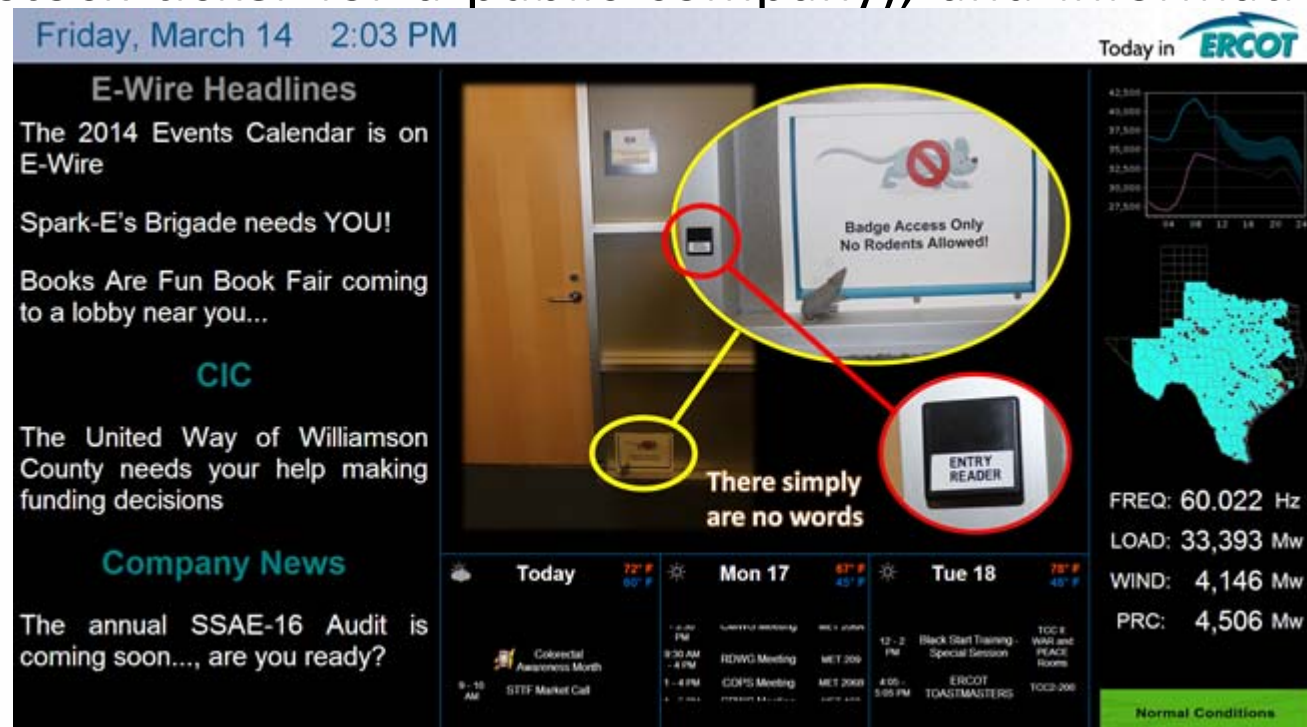


**Drumsticks, Cookies and Cream / Vanilla Ice Cream Sandwiches, Strawberry Fruit Bars, Fudge Bars & a Sugar Free Option**




### Culture/Engagement Strategies

- Today in ERCOT Displays (TiEs)
  - Grew from operator engagement display
  - Integrates public and internal calendar, key ERCOT statistics (like a stock ticker for a public company), and informational images



### Culture/Engagement Strategies

- Today in ERCOT Displays (TiEs)
  - Designed to support highly creative communications

Friday, March 14 2:03 PM Today in 

#### E-Wire Headlines

The 2014 Events Calendar is on E-Wire

Spark-E's Brigade needs YOU!

Books Are Fun Book Fair coming to a lobby near you...


**CIC**

The United Way of Williamson County needs your help making funding decisions


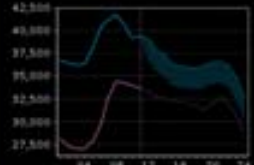
#### Company News

The annual SSAE-16 Audit is coming soon..., are you ready?

### North end of T-2, first floor, huh?



That's an awfully long walk from here.



FREQ: 60.022 Hz  
LOAD: 33,393 Mw  
WIND: 4,146 Mw  
PRC: 4,506 Mw

Normal Conditions

Today	Mon 17	Tue 18
72° F 60° F	67° F 45° F	78° F 48° F
Colorectal Awareness Month 9-10 AM STTF Market Call	9:30 AM - 4 PM IDWG Meeting 1-4 PM COFS Meeting	12-2 PM Black Start Training - Special Session 4:05 - 5:05 PM ERCOT TOASTMASTERS
	MET 209 MET 2099	TOC 8 WAR and PEACE Rooms TOC2-209

### Growing Operator Engagement

Shift-work operators within a 9 to 5 organization presents an integration challenge. Meet it:

- Say “thank you” by providing *healthy* food
- Provide recordings or live (when possible) video feeds of employee meetings that operators can’t attend in person.
- Build-in recognition tools to draw awareness, like a high-level dashboard outside the control room (“Here’s who’s keeping the lights on, and the great job they’re doing.”)
- Provide easily accessible TiEs for Operators

“If you treat people like professionals, they’ll act like professionals; if you treat them like squabbling children, they’ll act like squabbling children.”

“If you govern by fear, you’ll have an employee population that will be scared to think critically and work optimally; everything will be fight-or-flight.”

# Integrating Psychology into Training

### Incorporating Positive Psychology

- Watch for the Losada line
- Positive, collaborative ownership of processes and their continuous improvement.
- Integration of cause analysis and continuous human performance improvement best practices
- Finding the right positive reinforcements. Money doesn't always work well (and can be harmful)
- Fostering a culture that rewards sharing information, identifying risks and solving problems

### Ego Depletion

Self-control is a limited resource, and like a muscle, it tires out.





### Situation Awareness



### Training in Cognitive Biases



“Apparently, when you publish your social security number prominently on your website and billboards, people take it as an invitation to steal your identity.”

*LifeLock CEO's Identity Stolen 13 Times*

–K. Zetter, Wired.com, April 2010

Human beings searching for meaning



**Self-Actualization**

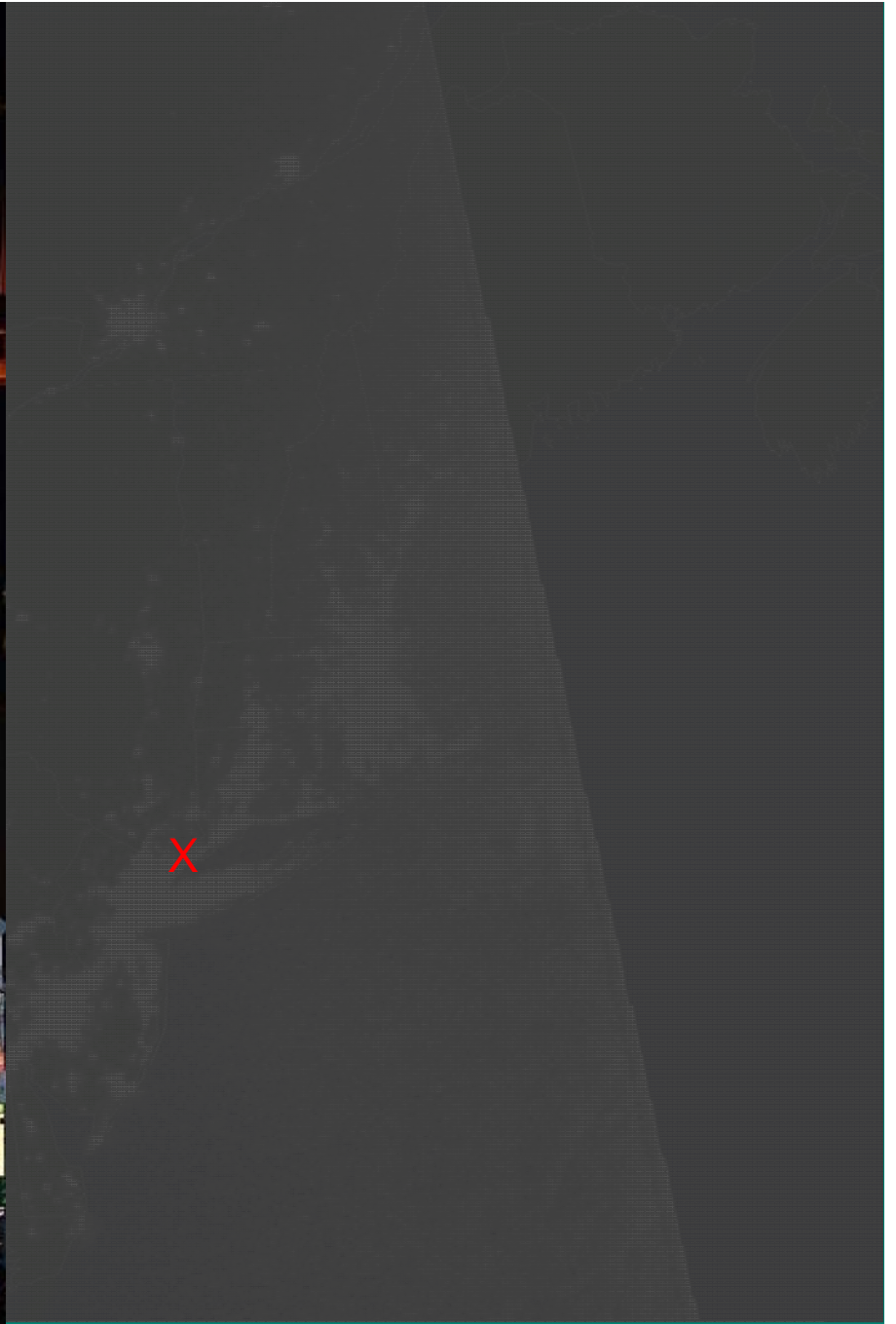
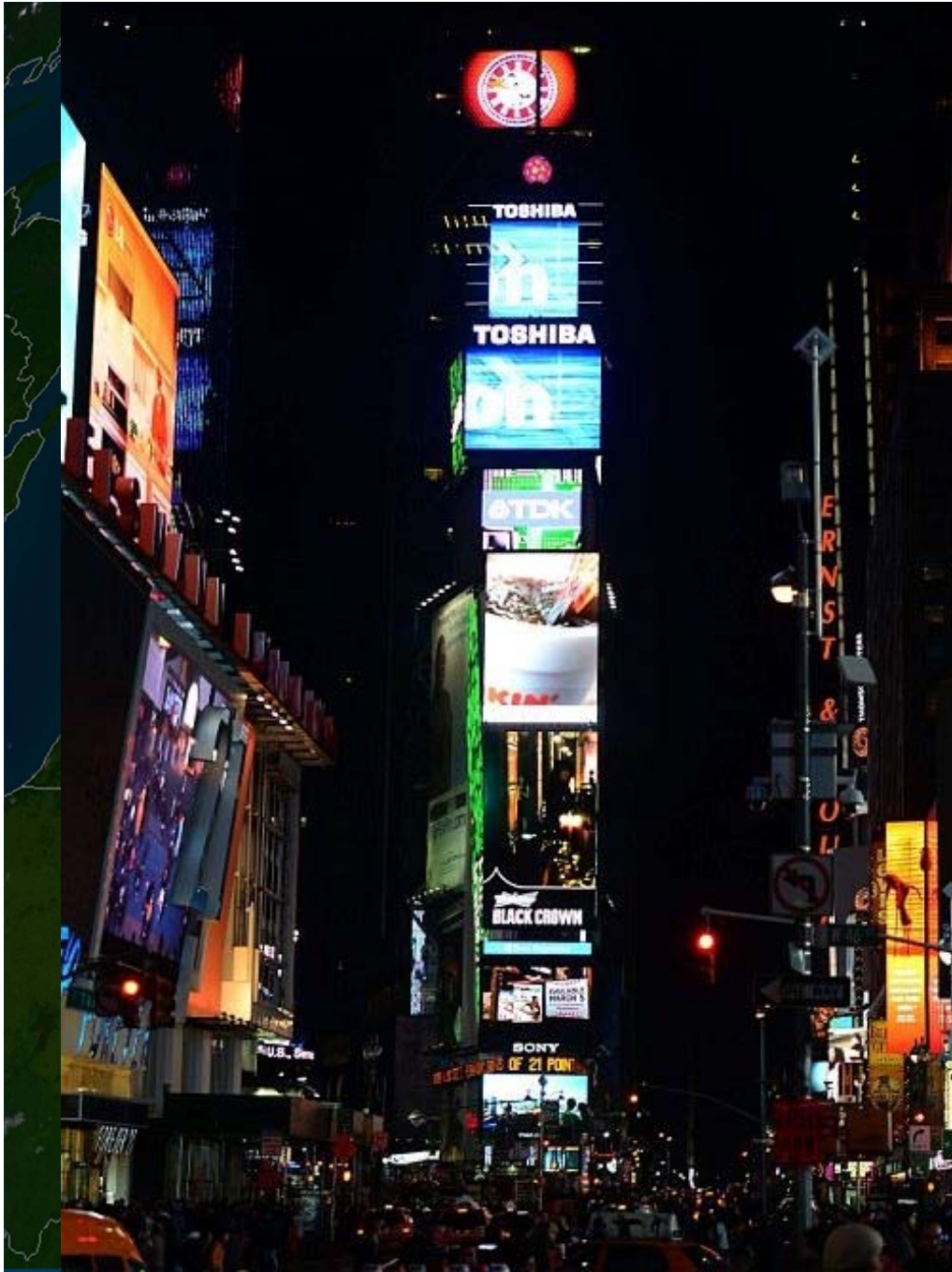
**Why?**

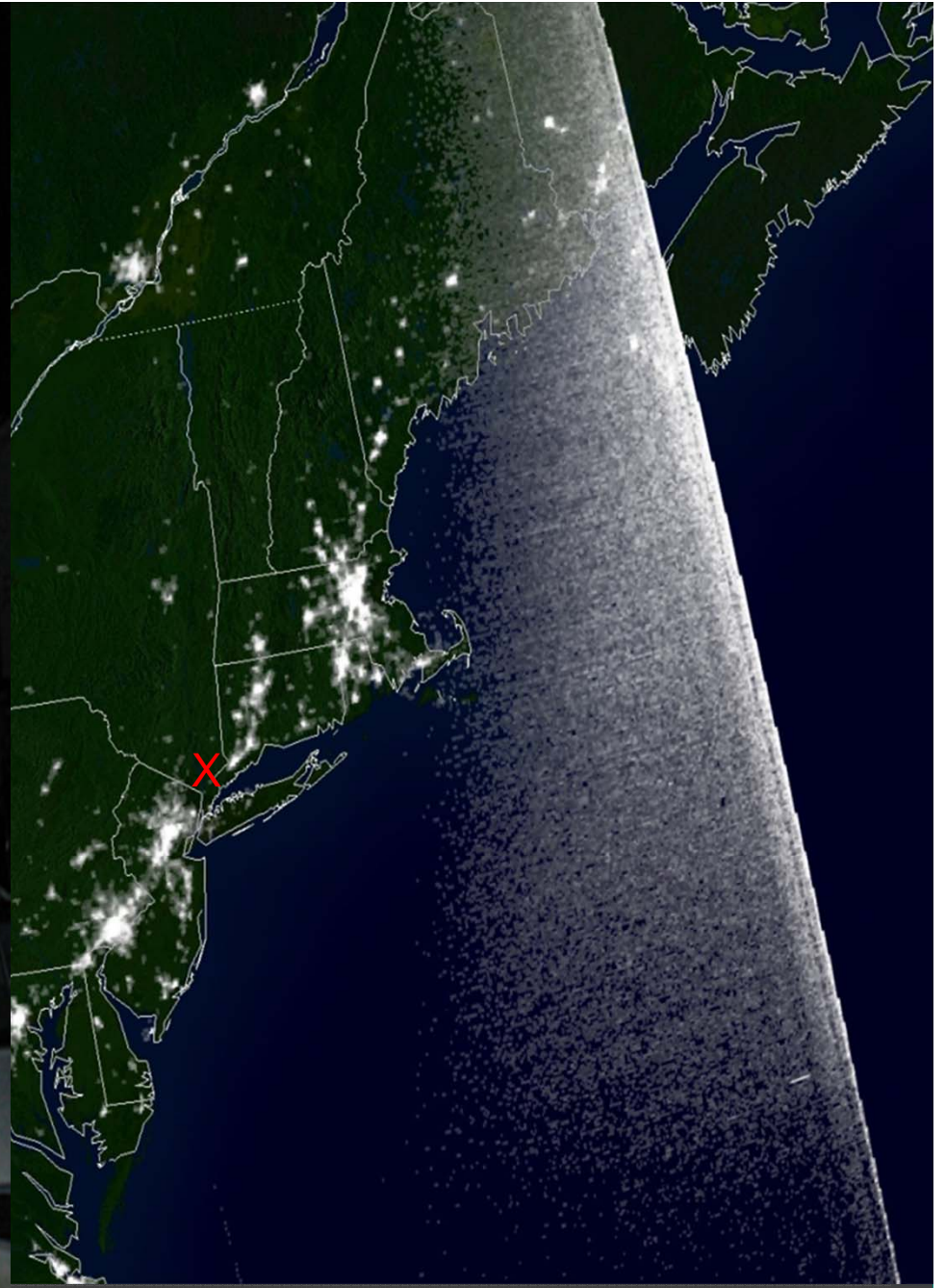
**Esteem Needs**

**Belongingness and Love Needs**

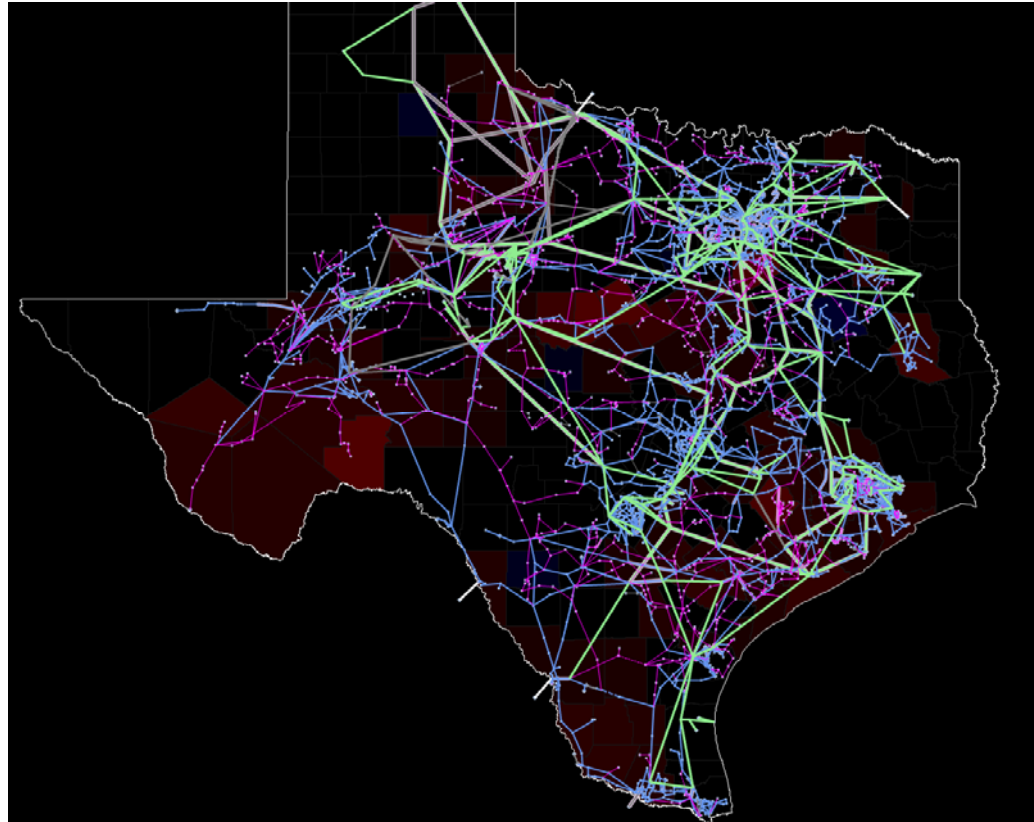
**Safety Needs**

**Physiological Needs**





Why? Not just What and How.



Macomber Map Source code now available to the public as open source: <http://MacomberMap.codeplex.com>

## Training in Human Performance

### Selective Attention

