



# 2009 PSerc Smart Grid Executive Forum

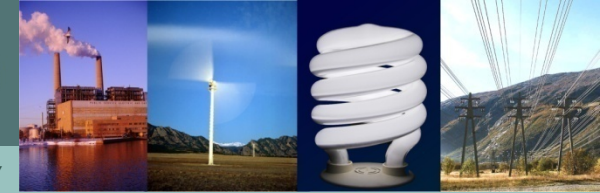


*Role of Smart Grid Executive Infrastructure in Addressing Climate Change, Demand Growth, and Energy Security*

# Smart Grid: What is it?

Mladen Kezunovic  
Coordinator  
Texas A&M University  
[kezunov@ece.tamu.edu](mailto:kezunov@ece.tamu.edu)

Austin, Texas  
March 6, 2009



## Soren Kierkegaard (1813-1855) the "Father of Existentialism".

- “There are two ways to be fooled; one is to believe what isn’t so, the other is to refuse to believe what is so.”





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## Vision



Future Grid

Modern Grid



Smart Grid  
Grid



Empowered Grid

Intelligrid



Wise Grid



Perfect Power Grid



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## Properties



### Energy Bill

#### Requirements





- Enabling consumers
- Accommodating all generation and storage options
- Enabling markets
- Providing power quality
- Optimizing assets and operating efficiently
- Operating resiliently
- Introducing automation

- Use of digital information
- Dynamic optimization
- Distributed resources
- Demand management and efficiency
- Deployment of "Smart Grid" technologies
- Integration of Smart Grid appliances
- Advanced storage and peak shaving
- Timely information and control
- Development of standards
- Lowering of barriers

### Other Views

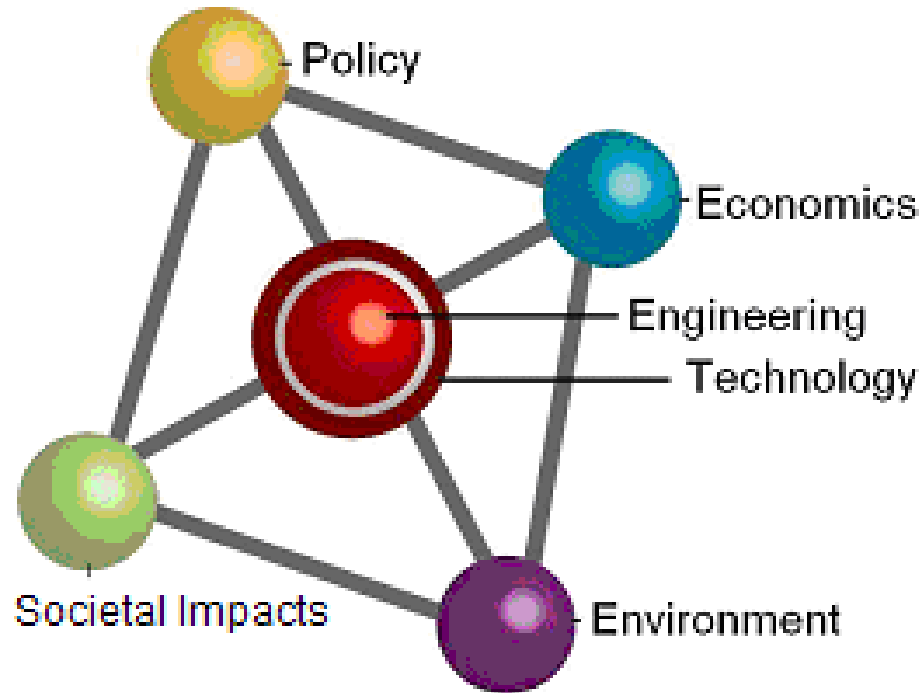
- Flexible
- Ubiquitous
- Transparent
- Uninterruptible
- Expandable
- Profitable

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## Framework





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## Infrastructure

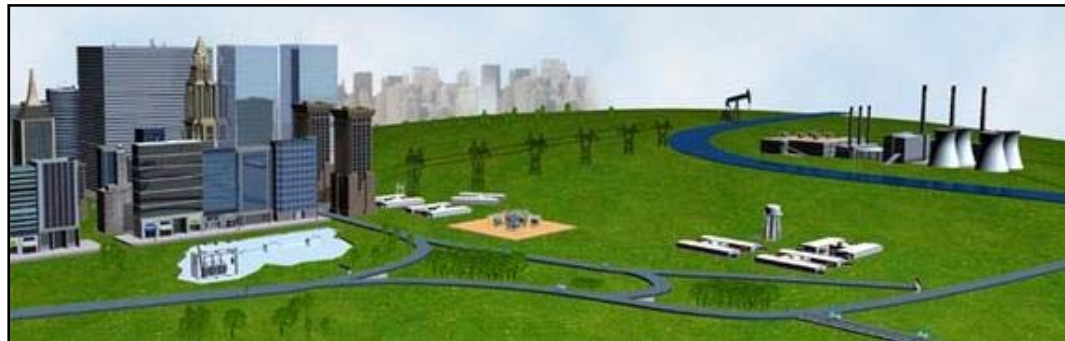


Image courtesy DOE

### Integrated Infrastructure

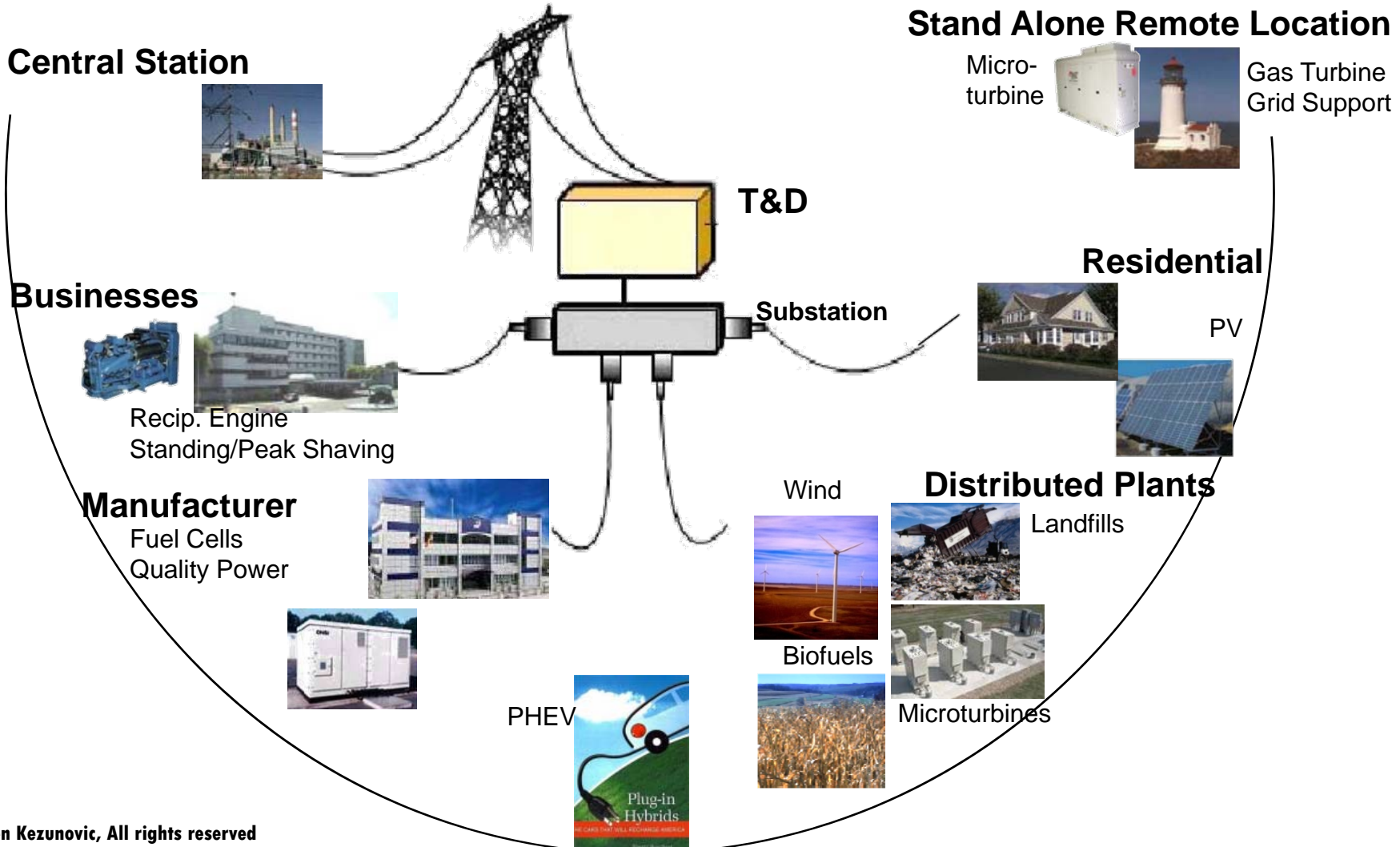


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## Application Cases



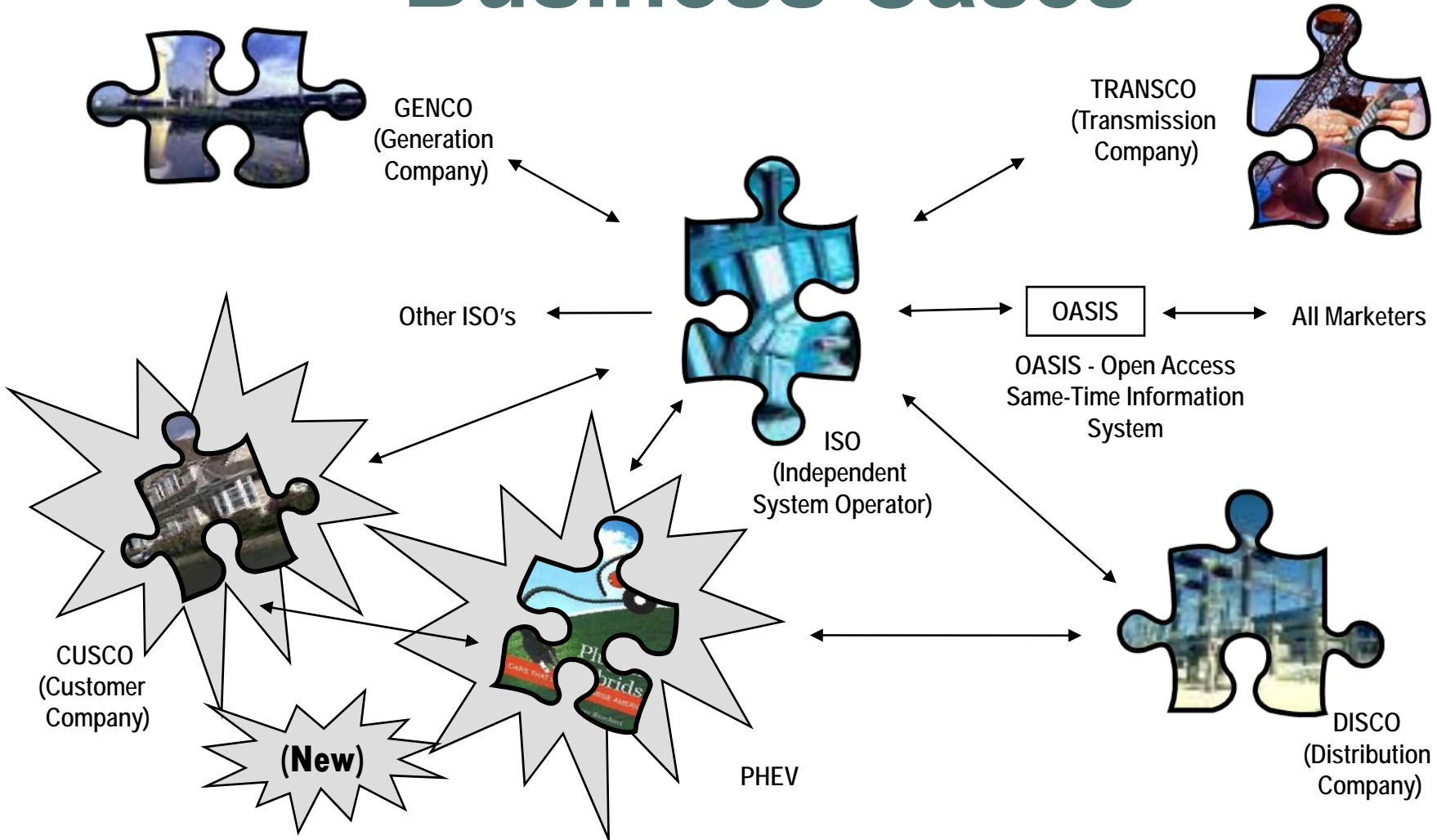


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## Business Cases



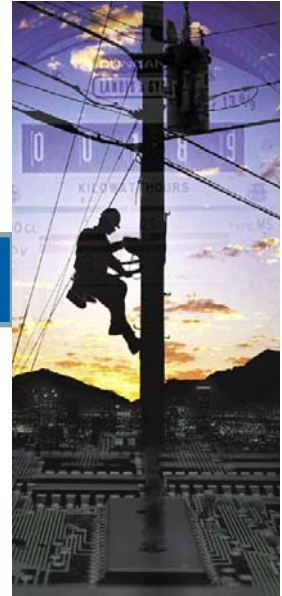
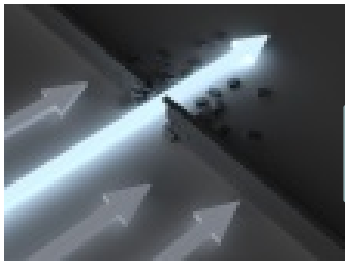


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## Systems Integration





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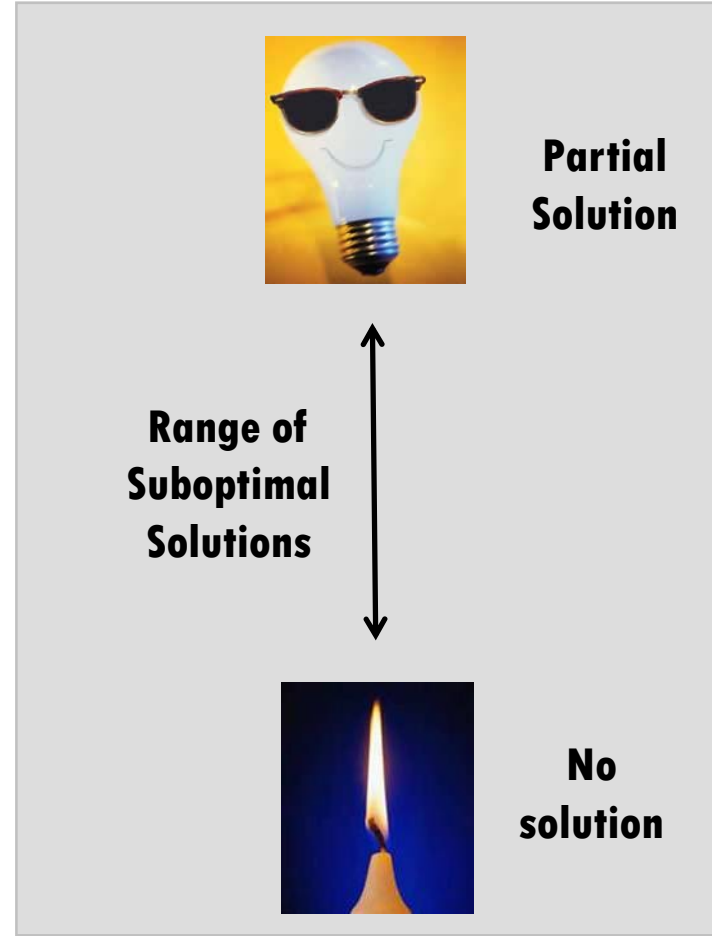


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## Solutions



OR





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***Together -  
building a prosperous future***

***where energy is  
clean, abundant, reliable, safe, secure and affordable***