Electric Transmission System Workshop

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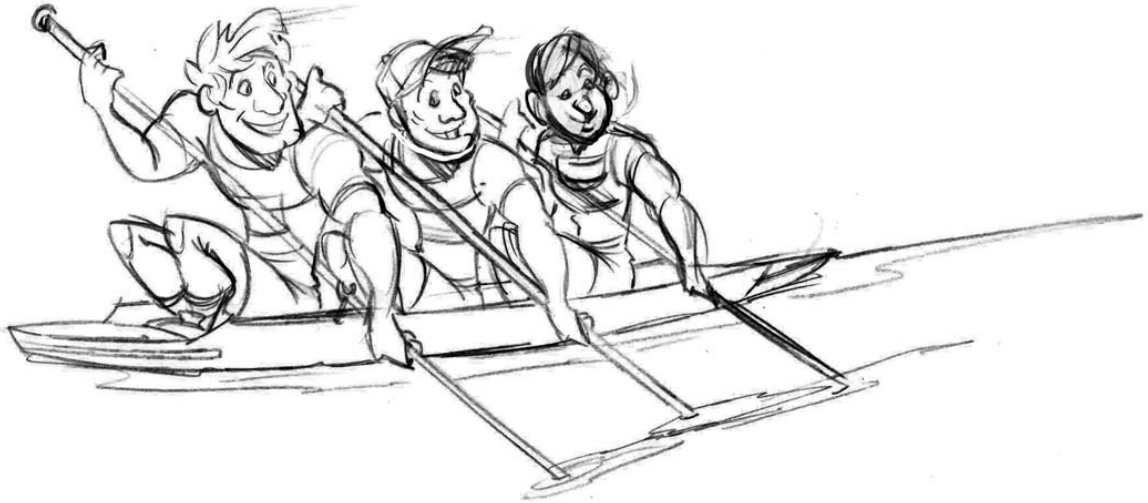
Visions for the Future

We all have "visions," in one form or another:

- Corporations call them strategic plans
- RTOs … transmission expansion plans or Order 1000 plans
- State PUCs … integrated resource plans
- Employees … career goals



Artist: Paolo Frattesi

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Taking Action in the Face of Uncertainty

Uncertainty = changing industry

Changes in technology, threats and policies

Can we make decisions in the face of change?

.....How can we not?

Can we agree on several key design attributes for the future grid?

Grid of the Future: What are the key attributes?

Step 1: Establish common ground on key design attributes

GTT's Proposed Key Design Attributes:

1. Reliability
2. Resilience when threatened
3. Reasonable cost
4. Accessible to consumers of many kinds
5. Able to sustain 2-way flows of energy and information
6. Able to accommodate DG, microgrids and EV

Grid of the Future:
Defining the Steps to Achieve Key Attributes

Step 2: after defining key attributes, develop a path

GTT's Proposed Path to Achieving its Key Attributes:

- Next generation energy management system (EMS)
- Improved Metrics
- Improved planning and operations models
- Improved data

Institutional Hurdles in Your Path to the Key Attributes

Examples of Institutional Barriers:

- State Regulatory Models
- Market Players blocking new entrants
- Permitting Delays

Responding to these Barriers:

- Systems approach to the challenge
- The truth will set us free
- Affordable technologies
- Hard work

DOE asks for your help…

to develop a shared vision of the future grid -- aiding us all to row in the same direction.