Increasing the Value of Weather Information in the Operation of the Electric Power System

Decision Tools: Commercial

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Company Profile

- Meteorlogix is the consolidation of DTN Weather Services, Kavouras, and Weather Services Corporation.
- Largest and oldest commercial weather services provider in the United States.
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Forecast and Decision Tools that are in Demand Today by the Electric Power Industry

- Automated Load-Forecast software systems
- Integrated OMS/EMS technologies
- Enterprise GIS
- Improved Local Forecast (Days 2-5)
- Improved Prediction of High Impact Weather Events
- Long Range Seasonal and Climate Forecasts
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The Branches of the Electric Power Industry
Meteorlogix Does Business With

- Investor- Owned (Major)
- Federal
- Publicly Owned (Municipal)
  - City and County
- Cooperative (Coop)
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The Segments Within the Electric Power Industry

- Generation
- Transmission
- Distribution
- Marketing & Trading
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The Individuals that Choose to Purchase and Maintain Weather Information Tools

- Vice President of Operations
- Manager of Operations
- Dispatch Manager
- I.T. Manager/Analyst
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Critical Issues that Face These Decision Makers

- Crew Management/Protection
- Asset Management/Protection
- Load Planning
- Public Safety
- Cost Control & Containment
- Profitability
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Do Decision Makers Seek Integration of Weather Information in Their Decision Tool?

- Energy companies are always looking to integrate useful data and information into common platforms.
  - An example of this is the merging of GIS and weather information. The T & D of an electric utility gains an automated monitoring and alert generation tool that is second to none.

- Not all utility companies have “the means” to acquire such technologies. In the future it is the meteorological community’s role to adapt to the entire marketplace (cost, personnel, infrastructure, etc. limitations)
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- Customers
- Substations
- Power Grid
- Outage Location
- Weather
  - wind direction & speed
  - precipitation
  - forecasts
  - high impact weather
  - ...and more

when weather means business™
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Delivery Platforms Being Used by Decision Makers

- Satellite & Internet
  - Continued increase in acceptance of open architecture structures, looking for web based solutions.
  - Broadband users continue to double in number every two years.
  - Satellite is ubiquitous.
  - Redundancy.
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How Do the Delivery Platforms Influence the Design of Weather Decision Tools?

- Weather Decision Tools are built to meet:
  - The demands and needs of the energy marketplace.
  - Key buying factors.
  - Business trends.
  - Industry spending trends.
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Do the Users of Meteorlogix Products and Services Have Their Own Meteorologists?

- Most of Meteorlogix energy clients do not directly employ professional meteorologists.
- Clients that do have their own meteorologists often refer to the Meteorlogix meteorologists as their own staff, their peers, or just part of the forecasting team.
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Do the Users of Meteorlogix Products Require Some Background in Meteorology?

Many of the technologies that are provided by Meteorlogix are designed for easy use and understanding by people with little of no meteorological knowledge. However, Meteorlogix also has advanced systems available that provide meteorologists with the resources they need to perform their weather-related duties.
What Improvements in Meteorological Research Would Be in Most Demand By Your Customers?

- Improvement in the medium range forecast models.
  - Temperature
  - Precipitation
  - Dewpoint
  - Specific and individual output from a consensus model.
- Any technical improvements that help utilities make better short term and long-term weather related decisions.
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What Changes in How Weather Information is Reported or Measured Would Most Help the Tools You Offer Customers?

- Increased densification of commissioned NWS observation stations.
- Improve cleanliness of missing data.
- Increase the frequency of the hourly reported data.
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Does Meteorlogix Partner with Providers of Decision Support Tools to Custom-Tailor Products?

- Yes
  - Vaisala/GAI
  - ESRI
  - Praxis
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Is There a Standard Weather Product that Almost Every Utility Uses?

- Degree Day Forecasts
- Meteorlogix’s MxVision StormSentry is the popular display technology in regards to transmission and distribution operations at utilities.
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Is There a Standard Weather Product that Almost Every Utility Uses?

- MxVision StormSentry
  - It gives users easy and instant, one click access to real time weather graphics such as radar, satellite imagery and lightning.
  - It also can be automated to produce a visual and audio alert so the users do not need to constantly monitor the system.
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Is There a Standard Weather Product that Almost Every Utility Uses?

- Historical Data
- Real Time Weather
- Short Term Weather Forecasts
- Long Range Climate Forecasts
- Model Data
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Other Products That Would be of Value

- Integrating the same, high quality weather information directly into the utility’s GIS platforms.
- Improved seasonal and climate forecasts.
- Improved indices.
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