ISO-IT ISN’T WHAT YOU THINK IT IS -OR IS IT?

OUTLINE OF PRESENTATION TO
THE HARVARD ELECTRICITY POLICY PROJECT
MARCH 21, 1996

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THE RESPONSE SPECTRUM
- Open access & non-discriminatory tariffs
  - Consolidated tariffs
- "ISO lite"
- ISO, ISO Operator- "Account temps"
- Full service ISO
- Independent Transco

EIGHT CRITERIA FOR AN ISO-AN ARGUMENT
- Under contract will "operate" owners' transmission facilities in the interest of all users in accordance with FERC approved tariffs, procedures and rates.
- Reliability will be governed by good practice, NERC and Regional guidelines and standards.
- Will operate the capacity, energy and ancillary services markets for all players.

EIGHT CRITERIA FOR AN ISO-AN ARGUMENT
- Meets substantiality Test:
  - Makes initial Capital Investment in and owns relevant facilities.
  - Multi-contract Commitment to the ISO business.
  - Committed to: invest in needed capital improvements over time.
  - Provides fruitful training and career employment for superior personnel.

EIGHT CRITERIA FOR AN ISO-AN ARGUMENT
- Independent from any potential bias, including G, T and D ownership.
- Will have no financial interest in market transactions or operation.

EIGHT CRITERIA FOR AN ISO-AN ARGUMENT
- Earns a profit with some fraction of return at risk. Not a cost plus entity.
- Coordinates regional planning with input of all stakeholders.

ISO GOVERNANCE

PROMINENT ISO THEMES

3/20/96
“ISO LITE”
- Independent tariff administrator
  - Has a rational basis
  - Assumes separate security center
  - Auditor-Referee against the tariff/procedure/rate standard.
  - Dispute mediator or arbiter
  - Few people, little capital

CALIFORNIA ISO
- Organization of stakeholders
- Lessee of transmission; Own or lease Center
- Negotiates rules, tariffs

CALIFORNIA ISO (CONT’D)
- May be investor in incremental facilities
- Hires system operator (Account Temps)
- Separate Market Manager

EASTERN MODELS
- NEW YORK
  - Single “Hogan” market, consolidated tariff
  - Lessee of transmission
  - NYPP office becomes the Security Center/Market Manager
    - Governance/Ownership Change needed

EASTERN MODELS (CONT’D)
- MID ATLANTIC
  - Capacity market Intact
  - Energy market-changes weekly (locational priced residual)
  - Security Center
  - PJM office is the “ISO”, converted to not-for-profit.
    - Evolving Board (responsibilities uncertain)

THE MIDWEST GROUP
- Full service ISO
- New market to be defined
- The center above the centers

TEXAS STYLE
- ERCOT becomes the ISO, add market functions.
- Stakeholders represented
- Dispute resolution
ISO FUNCTIONS

NOTE: THESE FUNCTIONS WOULD BE PERFORMED BY A FULL SERVICE ISO

• RELIABILITY (PLANNED)
  • Coordinate regional planning
  • Determine regional reserve obligation
  • Determine inter-area tie credit
  • Allocate generation responsibility among load serving entities.
  • Contingency planning for operations
  • Participate in interregional Planning

RELIABILITY (OPERATING)
  • Regional load forecast (self scheduled portion and available to market
  • Generator scheduling from committed units
  • Ancillary services supply adequacy and scheduling (spinning reserve, ramp up/down, ACE, AGC.
  • Emergency procedures including:
    • voltage reduction
    • load dump
    • Min gen
  • Inter area scheduling
  • Operating to contingencies
  • Planned outage coordination (G&T)

ECONOMY
  • Regional load forecast
  • Generation dispatch to economic merit after "must run" transactions.
  • Bilateral dispatch
  • Parallel flow surveillance and remediation
  • Transaction accounting and billing
  • Interregional coordination transactions (very short term)
  • Balancing
  • Ancillary services market
  • Regional tariff administration