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**WHERE WILL YOU BE IF THE LIGHTS GO OUT?**

*Hale and Dorr Energy Group, June 22, 2001*

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# HOW TO GET ENERGY TO YOUR PROJECT WHEN THE NEEDED UTILITY INFRASTRUCTURE DOESN'T EXIST

Mark C. Kalpin

Hale and Dorr Energy Group

June 22, 2001

HALE AND DORR LLP

# INDUSTRY OVERVIEW

- Utility Restructuring
  - Electric Restructuring Act
    - Generation, Transmission, Distribution
  - DTE Gas Unbundling Collaborative
    - Production, Transportation, Distribution
- Effect of Mergers and Acquisitions

# ELECTRIC and GAS DISTRIBUTION UTILITIES

- Monopolies Regulated by DTE
  - Each Distribution Company shall have the exclusive obligation to provide Distribution Service within its Service Territory. No other entity may provide Distribution Service within such Service Territory without the written consent of the Distribution Company.

# DTE REGULATION OF DISTRIBUTION UTILITIES

- Rate Tariffs
- Terms and Conditions of Service
- Performance-Based Ratemaking
- Pending Investigation Issues (MBIS)
- Complaint Process

# ISSUES IN OBTAINING SERVICE

- Adequacy of Existing Service
- Construction of New Infrastructure
  - Temporary vs. Permanent, Timing
- Revenue Guarantees
- Special Services
- Refusal or Termination of Service

# ADEQUACY OF EXISTING INFRASTRUCTURE

- Application for Service
  - Evaluation of Infrastructure Adequacy
  - Evaluation of Proposed Use
  - Specialized Needs = Cost and Time
- Reliability & Quality
  - Terms & Conditions
  - On-Site Reliability = User Issue



# CONSTRUCTION OF NEW INFRASTRUCTURE

- Evaluation of Adequacy
- Temporary Service
- Permanent Service
  - No Cost Construction Limited by Terms and Conditions
    - 1.5 x Annual Revenue Estimate
    - Facilities Exceeding those Necessary to Provide Distribution Service
    - Limited Review and Refund Period

# REVENUE GUARANTEES

- The Company reserves the right to reject any application for Distribution Service if the amount or nature of the service applied for, or the distance to the premises to be served from existing suitable transmission or distribution facilities, or the difficulty of access thereto is such that the estimated income from the service applied for is insufficient to yield a reasonable return to the Company, unless such application is accompanied by a cash payment or a guarantee of stipulated revenue for a definite period of time, or both ....

# SPECIAL SERVICES AND ISSUES

- Metering (DTE 00-41)
  - Must be Provided by Distribution Company
  - Need for Advanced Metering
  - Default = Dual Meters

# REFUSAL OR TERMINATION OF SERVICE

- Loads Having Unusual Characteristics Which Might Adversely Affect the Quality of Service to Other Customers, the Public Safety, or the Safety of the Company's Employees
  - Customer Installed Protective Equipment
- Unsafe or Defective Installation

# OPTION: Host Distribution Company

- Elevate within Company
- Special Contract
  - Alternative to Tariff / Terms & Conditions
  - DTE Approval Required
  - Price, Term of Service, Revenue Guarantee, Funding Contribution
- Construction and Donation of Facilities
  - Design/Build and Tax Markup Issues

# OPTION: Alternate Distribution Company

- Limited Applicability Based on Existing Infrastructure
- Host Company Approval
- Municipality Approval for Electricity
- DTE Oversight
- Potential Leverage over Host Company

# OPTION: Competitive “By-Pass” Distribution

- Energy and Environmental Regulation
  - DTE, NEPOOL, EFSB, DEP, MEPA
- Municipal Consent Issues
- Limitations on Resale and Distribution
  - Metering
  - Pass-Through of Cost and Savings


# CONCLUSION: Information and Dialogue

- Elevate Issues within Host Company
- Full Evaluation of All Alternatives
  - Alternate LDC and By-Pass
- DTE Oversight Process
  - Performance-based Rates
  - Complaint and Investigation



# CONCLUSION

- Timely Planning Essential
- Information and Options = Leverage

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# CREATIVE OPTIONS FOR OBTAINING ENERGY AT A COMPETITIVE PRICE

Andrew H. Cohn  
Hale and Dorr Energy Group  
June 22, 2001

HALE AND DORR LLP

# THE SALE OF ELECTRICITY IN THE CURRENT REGULATORY ENVIRONMENT

- The Restructured Electric Industry is comprised of four components:
  - (1) generation,
  - (2) transmission,
  - (3) distribution, and
  - (4) customer services.
  - Before restructuring, these components were bundled and provided as monopoly services by electric companies, at prices fully regulated by the Department.
- As of March 1, 1998, the generation component has been unbundled from the other components of electric service. Customers are now able to purchase generation services from “competitive suppliers” of generation service; these prices will not be regulated by the Department, although the suppliers will be licensed by the Department.

- The other components of electric service (transmission, distribution and customer services) have not been opened to competition; These components will continue to be provided as monopoly services by the electric companies.
- Customers' bills now show the various components of electric service:

Distribution Service	Customer Charge
	Energy Charge
Transmission Service	Energy Charge
Transition Costs	Energy Charge
	DSM Charge
	Renewables Charge
Generation Service	Energy Charge

- Explanation of the Components of Electrical Service

- **Transition Costs:**

For costs incurred prior to January 1, 1996, these categories are (1) fixed generation-related costs, (2) above-market purchased power contracts,

(3) generation-related regulatory assets, and (4) nuclear decommissioning costs.

For costs incurred after January 1, 1996, transition cost categories are (1) employee-related costs related to restructuring, (2) payments in lieu of taxes, and (3) removal and decommissioning costs for fossil-fuel generators.

- **Generation Service** – There are three generation service options available to consumers: (1) Standard Offer Service, provided by Distribution Companies; (2) Default Service, provided by Distribution Companies; and (3) Competitive Generation Service, provided by competitive suppliers.

- **Standard Offer Service** is a transition generation service that will be available to customers of record of each Distribution Company through 2004. A customer that did not select a competitive supplier as of March 1, 1998 automatically was placed on Standard Offer Service (customers who move into a Distribution Company's service territory after March 1, 1998 are not eligible to receive Standard Offer – these customers are placed on Default Service until they select a competitive supplier). In general, once customers select a competitive supplier, they are no longer eligible to return to Standard Offer Service.
- **Default Service** is provided by Distribution Companies to customer not receiving either competitive generation or Standard Office Service.
- **Competitive Generation Service** is provided by competitive suppliers and electricity brokers that have been licensed by the Department. Prices for Competitive Generation Services are not regulated by the Department.

# INFORMATION AVAILABLE ABOUT COMPETITIVE SUPPLIERS OF ELECTRICITY AND ELECTRICITY BROKERS

- D.T.E. 96-100 sets out Competitive Supplier and Electricity Broker Requirements.
  - Financial Capability.
  - Reporting regarding business fraud and antitrust violations, including civil liability (also including settled matters).
- DTE publishes a current list of competitive suppliers and electricity brokers on its Homepage:

<http://www.magnet.state.ma.us/dpu>



- Competitive Supplier and Electricity Broker Information Filing Requirements.

- Background Information including any history of bankruptcy, dissolution, merger or acquisition of in the two calendar years immediately preceding application.
- Description of business being conducted, including types of customers to be served and geographic area in which services are to be provided.
- Documentation of technical ability to generate or otherwise obtain and deliver electricity.
- Documentation of financial capability (such as the level of capitalization or corporate parent backing).
- Documentation that the Competitive Supplier is a NEPOOL participant or will meet its transaction requirements through a contractual arrangement with a NEPOOL participant.

– Other Information Available.

- Company Resource Portfolio: Based on quarterly determinations of the resources used by a Competitive Supplier to meet its load obligations in New England over the reporting period.
- Known resources kilowatt-hours associated with specific generating units in which the Competitive Supplier holds, or is assigned, unit entitlements or contracts.
- System power: kilowatt-hours not associated with known resources.
- Imports: kilowatt-hours associated with imports to New England.
- Energy Storage Facilities: kilowatt-hours associated with energy storage facilities.
- The fuel mix of its resource portfolio:  
Emissions Characteristics.
- Labor Characteristics.

# OTHER PARTS OF THE REGULATORY PICTURE: ATTORNEY GENERAL REGULATIONS

- Unfair and Deceptive Acts: Any material representation to the public or to any consumer, relating to:
  - (a) Quality, environmental or other characteristics, or sources of any product.
  - (b) The business relationship between any seller of electricity and any distribution company
  - (c) Benefits to consumer
  - (d) Any term of agreement
  - (e) The distribution price
  - (f) The likelihood that a consumer will be able to purchase at a particular price
  - (g) The difference between any price charged by seller and price charged by any other seller
  - (h) The amount of money to be saved
  - (i) The time period during which any offered price will be available
  - (j) The period of time for which any price will remain in effect

# THE COMPETITIVE SUPPLY PICTURE IN THE COMMONWEALTH

- Licensed Brokers and Licensed Competitive Suppliers in the Commonwealth.
  - As of end of March 2001
    - 15 licensed Brokers
    - 20 licensed Competitive Suppliers

- A current snapshot of the Electricity Market

March 2001	Incumbent Generation			Competitive Generation		
	Total Number of Standard Offer Service Customers	kWh Used by Standard Offer Customers for Month	Total Number of Default Service Customers	kWh Used by Default Service Customers for Month	Total Number of Competitive Generation Customers	kWh of Competitive Generation Used for Month
<b>Residential Non Low Income</b>	1,501,775	976,875,438	564,113	292,658,584	1,706	2,014,834
<b>Residential Low Income</b>	119,787	63,941,479	659	119,961	0	0
<b>Residential Time-Of-Use</b>	14,247	28,063,481	6,171	9,005,171	2	19,884
<b>Small Commercial &amp; Industrial</b>	172,105	289,396,742	72,506	98,116,932	1,119	16,377,835
<b>Medium Commercial &amp; Industrial</b>	35,291	547,018,131	11,491	125,920,539	406	10,715,805
<b>Large Commercial &amp; Industrial</b>	4,729	894,885,148	1,562	307,080,029	433	186,065,646
<b>Farms</b>	887	2,494,303	168	328,638	0	0
<b>Street Lights</b>	13,274	22,421,206	2,337	4,786,751	129	697,158
<b>Total Sales to Ultimate Consumers</b>	1,862,095	2,825,095,928	659,007	838,016,606	3,795	215,891,162

- DTE Technical Hearing Investigation into the state of competitive, electric supplies in the Commonwealth:
  - Competitive suppliers today serve less than 1% of customers. These 1% of customers represent approximately 5% of the load.
  - Today over 75% of the load in the state is on standard-offer, below-market price mechanism.
  - Default service represents about 25% of customers. The balance of customers receive generation supplies from distribution-companies-procured-standard-offer services.
  - Default-service rates have been allowed to reflect market costs borne by the distribution companies who procure that service.
    - In the DTE's view if that had not happened then development of competitive-supplier alternatives would have been rendered altogether impossible – and, the financial stability, of the electric distribution companies to continue to serve their customers, would have been impaired.

– The Focus of DTE's May 2001 Proceedings:

- To identify barriers to competitive-supplier choice and barriers to competitive-supplier entry into the market.
- To make default service a fallback, not to have it be more attractive than competitive supply.
- As customers go from standard offer to default (and power-plant commitments to standard offer start to vanish), there will be more competitors.
- 11 new plants are due to come on line in the next 20 months, plus existing plants will start to come back in the marketplace because they no longer have to serve standard offer prices which are uneconomic.
- More stress on an opportunity to send real-time price signals to the marketplace.

# CONTRACT ISSUES

- Term.
- Price and pricing mechanisms.
  - Fuel cost adjustments (how such adjustments are indexed: daily, weekly, monthly).  
Other pass through modifications in supplier's price.
- Construction period supply.
- Level of service.
  - Firm service.
  - Interruptible service.
  - Liability for failure to provide required level of service.
- Metering provisions.
- Outage response.
- Minimum and/or maximum usage quantities
- Financial capability of supplier:
  - Guarantees.
  - Letter of credit.
- Inspection and audit rights.
- Operating and maintenance standards;  
and planning.




# HOW TO APPROACH THE MARKET

- Depends less on size of customer load and more on load profile.
  - Interval Metering Data or similar information.
- Seeking contract(s) for supply.
  - RFP process with a Buyer's advisor.
  - Pre-structuring the bid requirements to include contract terms.
  - Include data on load characteristics,
- Planning for the future:  
Even if some current assets are in non-deregulated locations, build in long-term abilities to obtain competitive supply.

# SUMMING UP

- How bad will you feel when your competitor gets a better deal: the anxiety of free markets.

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*Hale and Dorr Energy Group, June 22, 2001*

# ENSURING ELECTRIC RELIABILITY THROUGH ON- SITE GENERATION

Robert C. Kirsch

Hale and Dorr Energy Group

June 22, 2001

HALE AND DORR LLP

# ON-SITE POWER

- What is It?
  - Primary vs. Emergency Power

# ON-SITE POWER

- What are the Regulatory Issues?
  - Generation and Distribution Regulations
  - Environmental Regulations

# ENVIRONMENTAL REGULATORY OVERVIEW

- Regulations, Policies and Issues
  - Air Emissions
    - Permitting
    - Major Source
    - New Source Review
  - Noise
  - Water Usage and Discharge
  - Fuel Supply

# WHO MIGHT USE IT?

- Off-Site Primary Power with On-Site Emergency Generation
- On-Site Primary Generation with Off-Site Emergency Power



# CASE 1: Off-Site Primary Power with On-Site Emergency Generation

- Emergency Generation Issues
  - Environmental: Air Emissions and Noise
  - Generation Equipment: Diesel Generator, Micro Turbine, Fuel Cells
  - Fuel Supply: Oil and/or Natural Gas

# CASE 1: Off-Site Primary Power with On-Site Emergency Generation

- Environmental Considerations
  - Thresholds
    - Operating Limits:  $< 300$  hrs/yr
    - Fuel Use:  $> 3$  MMBtu/hr but  $< 10$  MMBtu/hr
      - Fuel Use and Record Keeping
    - $\geq 10$  MM Btu/hr
      - Plan Approval Process

# CASE 1: Off-Site Primary Power with On-Site Emergency Generation

- Environmental Considerations
  - “Major Source” Recapture Threshold
    - Ownership/Control Question
    - Aggregate PTE of 50 tpy of NO<sub>x</sub> or VOCs
    - Restricted Emission Status Permit Cap

# CASE 1: Off-Site Primary Power with On-Site Emergency Generation

- Environmental Considerations
  - Noise: Nuisance Standard and Policy
    - Increase: Goal ( $< 3$  dba); Limit ( $< 10$  dba)
    - Measurement Standards
    - Location Influenced
  - Best Available Control Technology for
    - Traditional Air Emissions
    - Noise

## CASE 2: On-Site Primary Generation with Off-Site Emergency Power

- Primary Power Equipment
- Primary Fuel Supply
  - Natural Gas with  $\leq 30$  Days Low Sulfur Oil
  - Gas Supply:
    - Competitive Supplier with Interstate Transport
    - LDC System: Pressure, Facility Upgrades
  - LDC “By-pass” Pipeline Regulation
    - EFSB, DEP, EPA, Corps, MEPA

# CASE 2: On-Site Primary Generation with Off-Site Emergency Power

- Environmental Issues
  - DEP Plan Approval Process
    - Limited vs. Comprehensive Plan Approval
    - Major Source Threshold
    - Noise Emissions
    - BACT Analysis for Air and Noise
  - Water Consumption and Discharge

# CASE 2: On-Site Primary Generation with Off-Site Emergency Power

- Environmental Issues
  - EFSB Review Thresholds
    - Generation > 100 MW
    - New Electric Transmission Line or Fuel Pipeline
    - “Streamlined” Review Process


# CASE 2: On-Site Primary Generation with Off-Site Emergency Power

- Environmental Issues
  - MEPA Review Thresholds
    - Water Withdrawal/Discharge
    - New or Expanded Generation > 25 MW
    - New Fuel Pipeline or Electric Transmission Line
    - “Major Source” Status



# CONCLUSION

- Legal Issues
- Permitting Issues
- Technical Issues
- Interrelated Legal, Permitting and Technical Strategies

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# ECONOMIC OPPORTUNITIES AND PITFALLS IN THE EVOLVING RESTRUCTURED ENERGY MARKETPLACE

Mark C. Kalpin

Hale and Dorr Energy Group

June 22, 2001

HALE AND DORR LLP

# OVERVIEW

- Restructured Energy Marketplace Presents Opportunities and Pitfalls
  - On-Site Aggregation/Distribution of Energy
  - On-Site Power Source
  - “Sales” to the Grid
  - Teaming with the Local Utility
  - Renewable Energy Sources

# ON-SITE AGGREGATION AND DISTRIBUTION OF ENERGY

- Electric By-Pass Line Crossing of Public Way Requires Municipal Consent
- Cannot Sell or Distribute Electricity or Gas to Retail Customer
- Direct Meter with Direct or Indirect Pass-Through of Costs and Savings
- Contractual Issues

# CONSTRUCTION AND OPERATION OF ON-SITE POWER SOURCE

- Opportunities
  - Third-Party Construction
    - EPC Contract, Financing, Permitting, Guarantees for Availability and Reliability
  - Third-Party Ownership
    - Off-Balance Sheet Financing
    - Contractual Issues: Term, Pricing, Reliability, Back-up Power, Fuel Cost Pass-Through

# CONSTRUCTION AND OPERATION OF ON-SITE POWER SOURCE

- Pitfalls
  - Six Months Prior Notice to Utility
  - Utility Stand-By Service Charge
    - Non-Dispatchable QF Exemption?
  - Exit Fee for Avoided Access Charge
    - Exemptions: 10% Annual Gross Revenue Threshold; Fuel Cells, Renewable Energy or Cogeneration Equipment; Source  $\leq$  60 kW and Eligible for Net Metering

- Pitfalls
  - EFSB Review Thresholds
    - Generation > 100 MW; new electric transmission line or natural gas pipeline
  - Environmental Review
    - New Source Review
      - Support Facility/Common Control Analysis
      - Contractual Issues: Use of Generation, Independence, Step-in Rights, Environmental Compliance



# “SALES” TO THE GRID

- Sales to the LDC as a Qualifying Facility
  - QF Certification as SPP or Cogen
  - Interconnection
    - Notice and Interconnection Standards
    - Simple Contract and Net Metering < 60 kW
    - Studies, Cost, Special Metering, PPA > 60 kW
  - Payment at “Short-Run” Rate
    - ECP + (ICAP + Ancillary Services)

- ISO-NE Load Management Program
  - Effective 6/1/01 - 5/31/02
  - Participate through Enrolling Participant
  - Load between 100 kW and 5 MW
  - Load Shedding or Emergency Generation

- ISO-NE Load Management Program
  - Demand Response Program
    - NOP-4 Event or Contingency Loss
    - 30 Minutes Notice with 2 Hour Interruption
    - Compensation at TMOR Price plus ECP for Actual Interruption
  - Price Response Program
    - Projected ECP > \$100 per MW/hr
    - Compensation at Actual ECP

# “SALES” TO THE GRID

- ISO-NE Load Management Program
  - Pitfalls
    - ISO-NE LMP vs. Environmental Regulation
      - NOP-4 Not Sufficient; NOP-4, Step 14 Required
      - DEP Emergency Generation Limits Apply
    - Penalties for Failure to Shed Load

- Sales to the ISO-NE Market
  - Bilateral vs. Market Sales
  - ISO-NE Sales
    - Dispatchable Unit > 5 MW
    - NEPOOL Membership
    - System Impact Study
    - Transmission Access

# TEAMING WITH THE LOCAL UTILITY

- Partnership on Project Possible if:
  - Distribution System Investment or By-Pass Avoided
  - Facility Generates or Sheds Load During Peak Demand
- Targeted Demand Side Management


# EMERGING TECHNOLOGY OPPORTUNITIES

- DOER
  - Strategic Environment Technology Partnership
  - Renewable Portfolio Standard
- MA Technology Park Corporation
  - Renewable Energy Trust Fund
    - Renewable Energy, Efficiency, DSM
- Federal / State Tax Credits
  - Solar, Biomass, Wind, Geothermal, Hydro

# CONCLUSION

- Advance Planning and Coordination  
Required to Take Advantage of Emerging  
Economic Opportunities and Avoid  
Potentially Costly Mistakes



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**Hale and Dorr. When Success Matters**

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