The Next Big Thing for the US Power Sector:
2005 Outlook

Philip W. Smyth, CFA
Peak Load Management Alliance Conference
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Who is Fitch Ratings?

> Headquartered in NY and London with 49 offices
> Over 3,100 banks and financial institutions
> Over 1,200 corporates
> 89 Sovereigns
Agenda

> Power sector credit environment
  > Median ratios by sub-sector
  > Rating actions
  > Rating outlooks

> Power sector credit rating drivers
  Volatile fuel prices
  Rising capital expenditures
  M&A activity
Median Ratings by Sub-sector

12/31/04

Utility Parent Companies: BBB+
Integrated Utilities: BBB+
Distribution Companies: A-
Pipelines: BBB+
Diversified/Unregulated: BB
Rating Actions 2002-04

Source: Fitch Ratings, relates to senior unsecured rating actions.
Underlying Cause of Rating Actions

> Primary causes of actions in 2002 - 2003
  > Linkage with rating of parent or affiliate
  > Poor performance of diversified businesses

> Actions in 2004 -2005 reflect more varied and individual causes
  > Individual performance of the entity
  > More typical ‘back to basics’ utility issues
  > M&A activity
  > Linkage with rating of parent or affiliate
Summary of Ratings Actions

Rating Changes by Sub-sector
2003 to April 11, 2005

Source: FitchRatings. As of April 11, 2005.
Rating Outlook
Distribution

Outlook Distribution by Sub-sector
2003 to April 11, 2005

Source: FitchRatings. As of April 11, 2005.
2005 Power Sector Rating Drivers

> Renewed emphasis on earnings and dividend growth
  > “Back to basics” strategies mostly complete
  > Management focus on equity returns could lead to future problems

> Future challenges:
  The fuels dilemma
  Rising capital expenditures
  M&A activity
Fuels Mix

2004 U.S. Power Production by Fuel Types

The Big Three:
Coal, Uranium, and Natural Gas
U.S. Fuel Diversity Reflects Historical Power Capacity Additions

The Oil Embargo 1973-4

PURPA 1978

RTO NOPR 1999

CAA Amendments 1990

EPACT 1992

Rise of the Merchant

Credit Crash

Source: Global Energy Decisions, Inc.
> Fitch gas price forecast raised spring 2005
> Natural gas production not keeping pace with decline of existing reserves
> Prices anticipated to remain high and volatile until significant new sources are developed
  > LNG imports
  > Increased drilling in new areas; frontier gas
  > Longer term - coal gasification
Average Henry Hub Natural Gas Prices in Fitch Power Models
Semi-annual update, First Half 2005

Sources: Fitch Ratings; Global Energy Decisions.
Fuels
Dilemma: Coal Price Outlook

> Eastern coal
  > Production declines, rail bottlenecks, permitting problems
  > Long-term contracts prices higher, but current high spot prices are not sustainable

> Western coal
  > Ample reserves
  > Contract prices will increase modestly
  > Near term, rail transport constraints limit expansion

> Stricter environmental rules in the future will alter capital and operating economics
What About Hydro Generation?

> Hydro generation represents a significant, low-cost resource in the West
  > Hydro generation represents about 34% of WECC capacity
  > Approximately 55% of WECC hydro capacity is located in the Pacific Northwest (PNW)
  > Not a source of new capacity

> The PNW has experienced a prolonged period of unusually dry weather
2005 Hydro Outlook

> Reduced hydro output comes at a particularly inopportune time given high natural gas prices

> Negative impact expected for investor owned utilities in Pacific Northwest

  > Coal/nuclear run at high capacity factors
  > Greater reliance on natural gas and purchase power

> Public power utilities less affected due to ability to quickly raise tariffs.
2005 Hydro Outlook

> Snow pack in the Sierra Mountains well above average

> Despite low projected PNW stream flows, hydro power should be available for export to CA

> Supply disruptions in Southern CA possible, but low probability outcome
Demand growth likely to exceed additions to capacity in 2005-2009.

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<thead>
<tr>
<th>Description</th>
<th>Regions/Provinces</th>
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</thead>
<tbody>
<tr>
<td>Gas is the marginal fuel that drives power prices. Spark spreads will increase more rapidly.</td>
<td>WECC and ERCOT</td>
</tr>
<tr>
<td>With modest demand growth, the number of hours per year that gas is on the margin will rise. Spark spreads will increase more gradually.</td>
<td>New York, New England PJM East</td>
</tr>
<tr>
<td>Capacity oversupply continues. Coal is the fuel on the margin; spark spreads for gas low or nil.</td>
<td>ECAR PJM West Entergy, parts of Southeast</td>
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# Fuels Dilemma: Credit Implications

<table>
<thead>
<tr>
<th>Entity</th>
<th>Rising fuel prices</th>
<th>Declining fuel prices</th>
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<tbody>
<tr>
<td><strong>Utilities</strong></td>
<td>&gt; Utilities with frozen or capped rates at risk</td>
<td>&gt; Beneficial cash flow environment</td>
</tr>
<tr>
<td></td>
<td>&gt; Utilities with recovery clauses may have large deferrals</td>
<td>&gt; Risk of disallowance of over-market contracts or hedges</td>
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<tr>
<td><strong>Competitive Gencos</strong></td>
<td>&gt; Increases cash flow of gencos with coal/nuclear fleets</td>
<td>&gt; Reduces cash flow for coal/nuclear gencos</td>
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<td></td>
<td>&gt; Lowers dispatch of gas-fired facilities</td>
<td>&gt; Raises dispatch of gas-fired facilities</td>
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<tr>
<td><strong>Energy Retailers</strong></td>
<td>&gt; Discourages new entrants, favors incumbents</td>
<td>&gt; Enables new entrants to challenge incumbents</td>
</tr>
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</table>
The Fuels Dilemma

Competitive Market Regions

> No precedent or model exists in US for planning fuel diversity within a competitive market

> Who will make new capacity investment when demand reduces the present over-supply?
The Fuels Dilemma

Traditional Regulated Power Markets

> Will utilities invest in over-supplied regions to lower dependence on gas

> New investments could lower utility credit ratings if state regulators delay tariff recovery or challenge prudence.
Historical Capital Expenditures

Sample of 20 largest utility groups

Source: SNL Energy Information System.
Forecast Capital Expenditures

Sample of 20 largest utility groups

Are Utilities’ Projected Capex Budgets Understated?

> Stricter environmental regulations
> New electric generation
  > Coal/clean coal technology
> If US Congress enacts energy legislation
  > Mandated reliability standards
  > Transmission upgrades
Evidence of Rising Capex: New Emissions Regulations

> Four major pollutants
  > \( \text{SO}_2, \text{NO}_x, \text{Mercury}, \text{CO}_2 \)

> Clean Air Interstate Rule: Phased-in reductions in \( \text{SO}_2 \) and \( \text{NO}_x \) emissions from 2003 levels at full implementation of
  > \( \text{SO}_2: 70\% \)
  > \( \text{NO}_x: 65\% \)

> Mercury Rule: Phased-in reductions designed to reduce emissions by 70% by full implementation.

> Rising allowance credit prices

> Leading to:
  > Higher energy costs
  > Increased leverage
  > Lower profit margins
Evidence of Rising Capex

Utility

> Reliability of transmission and distribution networks
  > Fallout from August 2003 Blackout
> Environmental compliance
> Customer and sales growth
> Catch up for under-investment in recent years

Non-utility

> LNG terminals
> Gas storage facilities
Demand Side Management (DSM)

> **Benefits of successful DSM:**
  > Reduce new capacity need (capex)
  > Reduces fuel consumption
  > Avoids environmental costs
  > Shifts dispatch curve

> **What is lacking:**
  > Sophisticated metering with two way communication
  > Time of day pricing
  > Regulatory incentives for DSM
### Capex: Examples of Supportive Regulatory Initiatives

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<tr>
<th>State</th>
<th>Initiative</th>
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<td><strong>Iowa</strong></td>
<td>Legislation permits pre-approval of recoverable construction costs.</td>
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<td><strong>Wisconsin</strong></td>
<td>PSC pre-approved costs and lease agreement for new coal and gas plants.</td>
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<td><strong>Alabama</strong></td>
<td>Certified New Plant Adjustment clause minimizes regulatory lag for new plant investment; allows recovery of prospective environmental costs.</td>
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<tr>
<td><strong>California</strong></td>
<td>Assembly Bill 57 established policies and cost recovery mechanisms for energy procurement.</td>
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<tr>
<td><strong>Mississippi</strong></td>
<td>Environmental Compliance Plan provides for recovery of approved environmental costs.</td>
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<tr>
<td><strong>Indiana</strong></td>
<td>Regulatory statutes permit environmental CWIP in rate base</td>
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The Credit Impact of Higher Capex

Regulated Utilities

> Regulatory risk, recovery lag
> Increased pressure on regulated tariffs
> Higher external financing needs
  > Rising leverage
  > Rising interest expense

Competitive Generators

> Market risk for new plant investments
> Margin compression from environmental upgrades and emission credit purchases
> Higher external financing needs
  > Rising leverage
  > Rising interest expense
Recent M&A Activity

> 2002 - 04: Asset divestitures by distressed sellers improved liquidity
> Capital markets buoyant
> Asset sellers expanded excessively into non-regulated activities

Progression of asset sales 2002-2004

> First:
  > Pipelines
  > Contracted power plants
  > Diversified, non-core operations

> More recently:
  > Out of the money merchant plants
M&A Outlook for Private Equity Investors

> Unlikely to acquire utilities
  > Recent state rejections of private equity acquisitions by KKR for Tucson Electric Power (AZ) and Texas Pacific Group for Portland General (OR) will discourage future bids.

> Sector-specialized investors will focus on asset acquisitions
  > Arclight, Ontario Teachers Pension Fund, Energy Investors Funds
  > Sellers – Asset rich/cash poor

> Hedge funds will gain in importance
  > Partnerships of private equity firms with hedge funds
  > Greater willingness to accept commodity price risk
M&A Outlook for Foreign Buyers of US Utilities

In favor:
> Weak US Dollar
  > US acquisitions are cheap for foreign buyers

Against:
> Foreign buyers of US utilities have had mixed results
  > Pacificorp / Scottish Power
  > LGE / PowerGen
  > More favorable: NEES / National Grid
> Too much regulatory risk and uncertainty in US competitive power market assets
M&A Outlook for Utility Companies

In favor:
> Bigger is better: industry attitude; consolidation overdue.
> Consolidation may improve strategic position of participants in open-access power markets
  > Exelon/PSEG merger

Against:
> State and federal approvals are time-consuming.
> State regulatory proceedings may result in tariff givebacks outweighing benefits.
> Not clear if FERC market-power screens will impede mergers
  > Exelon/ PSEG will be a test of acceptable mitigation.
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