Gasification Incentives

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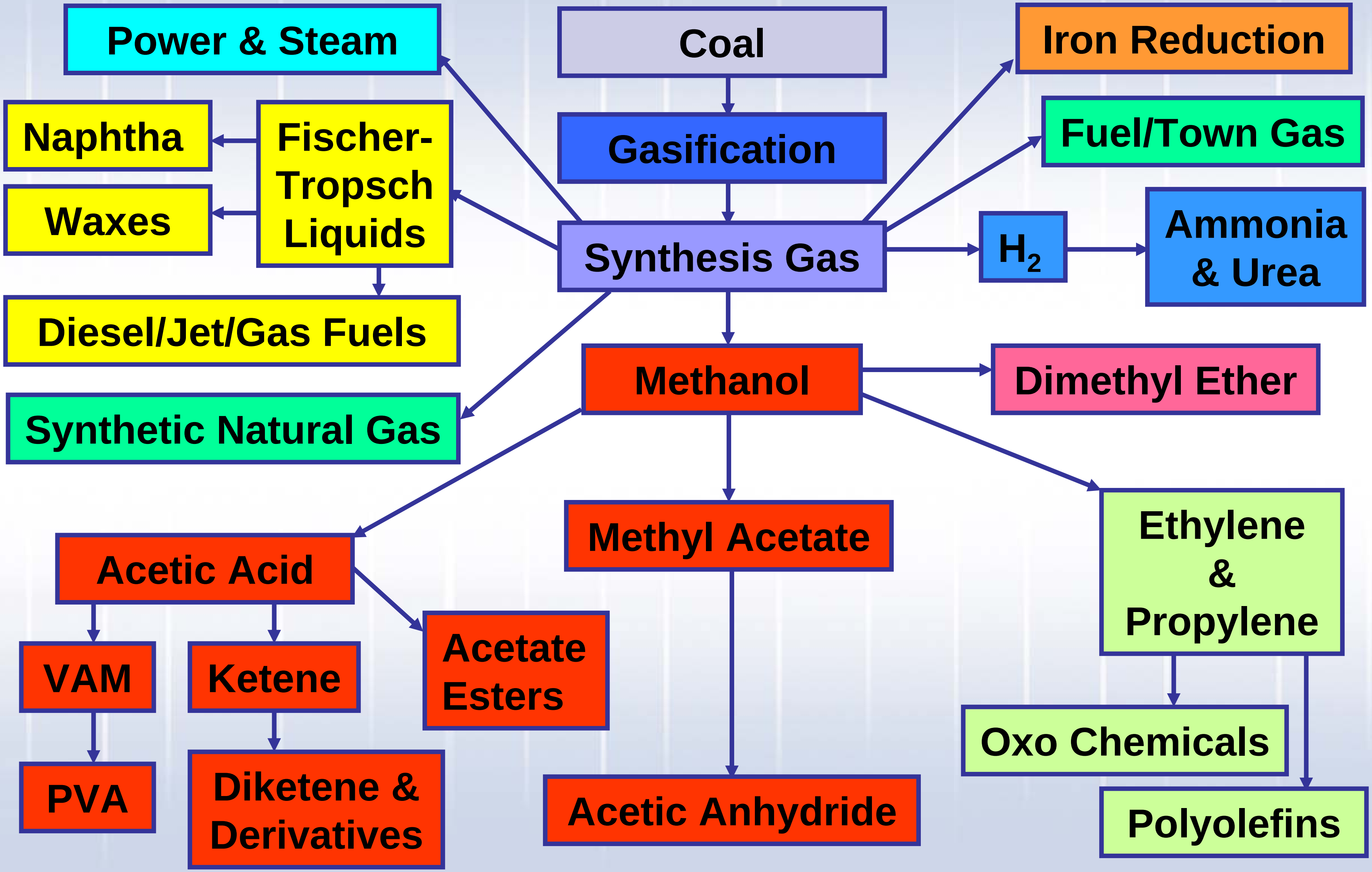
Session Objectives

- **EPACT 2005 Incentives**
  - Tax Credits
  - Loan Guarantees
- **State Incentives**
  - Senator Randel Christmann, North Dakota
  - Senator Beverly Gard, Indiana

Polygeneration Potential of Gasification



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Federal Incentives – EPACT 2005

- Investment Tax Credits
- Loan Guarantees

Energy Policy Act of 2005:

Title XIII – Energy Tax Incentives

- Two New Investment Tax Credits (ITC)
  - Section 48A: Qualifying Advanced Coal Project Credit
  - Section 48B: Qualifying Gasification Project Credit
- Both are ITCs allowed during a taxable year for the "qualified investment" in advanced coal project or industrial gasification project, respectively.

“Qualified investment”

- “Eligible property”
  - Part of qualifying project;
  - For advanced coal projects using integrated gasification combined cycle (IGCC), "necessary for the gasification of coal;" and
  - For industrial gasification projects, "necessary for the gasification technology."
- Placed in service by the taxpayer during the taxable year;
- Constructed by taxpayer or acquired by taxpayer before first placed in service; and
- Depreciable or amortizable.

Section 48A: Qualifying Advanced Coal Project Credit

- For integrated gasification combined cycle (IGCC) projects:
  - ITC is 20% of the qualified investment.
  - Cap of $800 million in total ITCs, which represents $4 billion of investment.
- For other advanced coal projects:
  - ITC is 15% of the qualified investment.
  - Cap of $500 million in total ITCs, which represents $3.33 billion of investment.

“Qualifying Advanced Coal Project”?

- Uses an advanced coal-based generation technology to power a new electric generation unit or retrofit/repower an existing electric generation unit;
- Fuel input is at least 75% coal (i.e., anthracite, bituminous coal, subbituminous coal, lignite and peat); and
- Has nameplate generating capacity of at least 400 MW.
- Applicant must also show:
  - Expected that a majority of project’s output will be acquired or utilized; and
  - Ownership or control of a site large enough to accommodate project.

Section 48B: Qualifying Gasification Project Credit

- ITC is 20% of the qualified investment in "qualified gasification projects."
- Cap of $350 million in total ITCs, which represents $1.75 billion of investment.
- Cap of $650 million of qualified investment per project that can be certified, which would provide $130 million of ITCs.

"Qualifying Gasification Project"?

- Uses gasification technology that converts coal, biomass or petroleum residue into synthesis gas composed primarily of carbon monoxide & hydrogen for direct use or subsequent chemical or physical conversion.
- Carried out by an "eligible entity" in applications related to:
  - Chemicals
  - Fertilizers
  - Glass
  - Steel
  - Petroleum residues
  - Forest products
  - Agriculture

“Double Dipping” Allowed?

- Amount of qualified investment (and thus amount of the ITC) does not appear to be reduced for:
  - Loan guarantees;
  - Tax-exempt government bonds; and
  - Grants.

ITC Reduction – No “Double Dipping”

- Amount of qualified investment (and thus amount of the ITC) is reduced for:
  - Subsidized energy financing – financing under a Federal, state or local program a principal purpose of which is to provide subsidized financing for energy conservation or production projects; and
  - IDBs – proceeds of tax-exempt private activity bonds.

Process and Deadlines (Guidance of February 21, 2006)

- Generally
  - DOE application due June 30, DOE certifies by October 1
  - Treasury application due October 2
  - Credits awarded by November 30
  - Taxpayer executes agreement by January 31
  - Service executes agreement by March 31
  - 48A: 2 years evidence of turbine contract, permits; 5 years to place "in service"
  - 48B: 7 years to place "in service"

Process and Deadlines (Guidance of February 21, 2006)

- 48A Selection Priorities (IGCC)
  - projects demonstrating "greenhouse gas capture or increased by-product utilization"
  - oversubscription: highest ratio of total nameplate generating capacity to requested allocation of credits
  - coal allocation: $267 million for each rank: bituminous, subbituminous, lignite
  - project limitation: $133.5 million

Process and Deadlines (Guidance of February 21, 2006)

- 48B Selection Priorities (industrial gasification)
  - priority projects: carbon capture capability, use renewable fuel, or have project teams with experience that demonstrates successful and reliable operations
  - oversubscription: allocated to projects with highest ratio of total amount of synthesis gas to be supplied to by project ("nameplate capacity") to requested allocation of credits
  - non-priority projects: no priority project, ratio

Process and Deadlines (Guidance of February 21, 2006)

- DOE evaluation criteria
  - 48B requirements
  - demonstrated applicant ability to accomplish the technical objectives
  - suitable site, control/ownership
  - economic feasibility (submitted project development and financial plan)
  - ability to meet "in service" deadline
  - policy: geographical and technology diversity; environmental, economic, performance benefits

Process and Deadlines (Guidance of February 21, 2006)

- Issues
  - ratio of nameplate to ITC amount (48A and 48B)
  - eligible entity (48B)
  - tight DOE deadline (48A and 48B)
  - oversubscription criteria vague (48B)
  - 48A applicants can dip into 48B!

Title XVII Loan Guarantees

- 80% loan guarantee for eligible projects
- IGCC, polygeneration, pet coke, liquefaction eligible
- facilities receiving tax credits are NOT precluded from receiving loan guarantees
- credit subsidy cost can be:
  - appropriated
  - paid up front by borrower
- IGCC project sponsors can apply previously appropriated grant funds toward subsidy cost
- defaults referral to Attorney General
- ability of secretary to service debt to avoid borrower default (line of credit?)
- no implementation timeframe

Overview of Loan Guarantees

- Definition: Any Guarantee, Insurance, or Other Pledge with Respect to the Payment of All or a Part of the Principal or Interest on a Debt Obligation of a Non-Federal Borrower to a Non-Federal Lender.
- Backing: Full Faith and Credit of the United States
- Interest Rates: ≈100bps Over Treasuries

Overview of Loan Guarantees (cont.)

Benefits:

- Longer Debt Tenors
- Fully Amortizing Instrument
- Interest Rate Savings
- Access to Debt Capital
- Potentially Increased Project Leverage
- Policy-Driven

Drawbacks:

- Federalization of Projects
  - NEPA
  - Davis-Bacon
- Lack of Alignment with Traditional Financing Practices
- Potentially Bureaucratic Application Process

Relevant Examples:

- **Transportation Infrastructure Finance and Innovation Loan Program (TIFIA)**
- **Title XI Ship Financing Program (Maritime Administration)**
- **Railroad Rehabilitation and Improvement Financing Program (FRA)**
- **USDA Business & Industry Loan Guarantee Program (Rural Development)**

Potential Underwriting Criteria

Statutory Requirements

- Reasonable Prospect of Repayment
- Adequate Project Capitalization
- 30 Year Maximum Term
- Senior Lien on Pledged Assets – No Subordination
- Protect Interest of United States in Event of Default
- Reasonable Interest Rates

Other Potential Requirements

- Project Credit Rating
- Funding and Maintenance of Reserves
- EPC Contracts w/ Adequate Performance Wrap
- Lender Qualification Requirements
- Maintenance of Adequate Collateral
- Project Ranking System
- Eligible Cost Restrictions
- Other Covenants

Application Process – “Typical Requirements”

Applicant Background
- Legal Entity
- History
- Lender Information

Plan of Finance
- Sources & Uses Statement
- Financial Projections
- Capital Structure
- Working Financial Model
- Collateral
- Loan Terms

Project Information
- Purpose
- Design
- Construction Plan
- Regulatory Requirements

Feasibility Study/Business Plan
- Economic
- Financial
- Technical
- Market

Legal Structure/Contractual Framework

Summary

- Title XVII gives DOE considerable flexibility
- OMB will play a key role in the program design
- industry should participate in the rulemaking process
- expect sound underwriting criteria
- absent appropriations, program will have limited appeal
- uncertain timing