Economic Integration of Electric Markets; One Canadian’s Perception

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Electric Integration: Economics and politics

- Exports are used to create jobs and to increase regional and national competitiveness

- Energy supply security
- Competitive wholesale markets, seamless bulk transportation system

- Sovereignty
- Internal cash constraints, need to fund social development
Electricity Integration: Regulation

- Primarily a provincial responsibility
- Mix of federal and state responsibilities
- Exclusively a federal responsible
Common Policy – or – Integration

Differences in energy policy don’t necessarily limit electric coordination opportunities

- Integration and trade are simply the sum of individual commercial transactions
- Companies will create opportunities if the environment is conducive to doing business
- **States must create the type of electric market necessary to allow the results they want**
The State sets the stage

- A State defines the boundaries to trade and coordination
  - must decide what it wants to accomplish through increased integration
  - Must respect international agreements (NAFTA)
- Types of activities:
  - Export/import of electricity
  - Foreign direct investment in electric systems
- The resulting level of coordination will depend on the perceptions companies have regarding:
  - the receptivity of the State to trade and investment; and
  - the quality of electric market and supporting structures
Market Framework

- Electric Markets:
  - Are not all equal; and
  - Will always be evolving

- Market “failures”
  - It’s the big mistakes in market design that kill

- States looking to create the “right” market conditions
  - should declare the basic model at political level after studying the alternatives and understanding the consequences
  - can find many examples to learn from
  - can leave the detailed design and implementation to the experts
  - must leave sufficient time to implement new market designs
## Distinctions in Market Models

<table>
<thead>
<tr>
<th>Ownership Structure</th>
<th>State/Public Entity</th>
<th>Public/Private Mix</th>
<th>Private Ownership</th>
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<tbody>
<tr>
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<td>Single Buyer</td>
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Electric Market Regulation: Attributes

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**RC**
- Political process in forefront
- Regulator, if one exists, is not totally independent

**Public/Private Mix**
- Regulator in forefront
  - "Referee"
- Regulator in background
  - Oversight role
  - Acts as proxy for competition

**Private Ownership**
- Regulator in forefront
Generation markets:
Power Purchase Agreements or Merchant Plant

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Merchant generation can exist

**Generator manages market risk**

Market power must be mitigated

Generation owned or purchased via PPAs

**Monopoly manages market risk**

Market Power exists by definition
# Other Necessary Attributes

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- Transparency
- Respect for contracts
- Arbitration
- Property rights

- Strong regulator (refocused)
- Independent system operator
- Competition law
- Market surveillance
- Derivatives regulation

**Ownership Structure**

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# Available Commercial Options

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<tr>
<th>Market Type</th>
<th>Electricity Imports</th>
<th>Foreign Investment In Generation</th>
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Canadian Electric Market Status

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<td>Columbia</td>
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# Market Status in USA

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USA (state by state differences)
Mexico: Looking at Reform Possibilities

Market Model
- RC
- WC
- SB
- VIM

Ownership Structure
- State/Public Entity
- Public/Private Mix
- Private Ownership

Before 1992
- Ceiling set in Constitution and Law

After 1992
- Wall set in Constitution and Law
Conclusion

- Significant coordination already exists between the three countries
  - There is room to expand
- It's up to each State to create the environment for increased electric coordination
  - Set clear and complete market structures
  - Must meet the State's internal objectives while respecting international agreements
- It is not necessary to have common electric policy or similar market structures
- Companies will cause increased coordination and trade to occur if the environment is right