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Regulatory Governance and Policy Risk: Attracting Private Investment in (Renewable) Energy

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Intense competition between countries for private investment in renewable energy capacity

- Massive global demand for wind / solar / biogas power generation driven by environmental policies in most jurisdictions
- But limited supply of renewable energy companies and private capital

Some jurisdictions more successful than others in attracting green tech investment, generation capacity & jobs

- Germany – huge solar sector growth
- U.S. – large wind investments in many states
- Ontario – weak renewable energy performance
  - 1/3 of annual MW investment rate per capita in U.S. states with Renewable Portfolio Standards
  - Only 60% of 2007 MW target achieved by November 2008
  - Only significant renewable energy manufacturing in Ontario is a wind turbine tower plant in Fort Erie (though Samsung will increase future green job count)

What makes renewable energy companies invest in a particular jurisdiction?

Academic research identifies 3 primary factors:

1. Operational environment
   - E.g. Natural environment conditions, skilled labour cost and availability, size of regional market, proximity to suppliers
2. Regulatory policies
   - E.g. Financial/tax incentives, PPA rates and durations
3. Regulatory governance and process
   - *How* policies are made
   - E.g. Roles of regulatory agencies and ministries, transparency, long term commitments
   - Affects stability of policy framework

New academic study: surveys of renewable energy firms active in Canada, implemented late 2008

- Use data-driven analysis to identify areas of policy strength and issues for reform
- 63 wind developers, 12 solar developers, 36 manufacturers
- Key questions:

1. How important are specific factors in shaping the attractiveness of a jurisdiction for renewable energy firms?
2. How does Ontario rate on these criteria?

Results: criteria affecting attractiveness of a jurisdiction for renewable energy investment firms

	Wind firms (29)
3 Most Important Criteria	1. Natural wind conditions **2. Stability of the policy environment** 3. Transmission capacity availability
3 Least Important Criteria	13. Investment / tax subsidies 14. Availability of engineering and construction expertise 15. Proximity to equipment manufacturers / suppliers

Results: criteria affecting attractiveness of a jurisdiction for renewable energy investment firms

	Wind firms (29)	Solar firms (8)
3 Most Important Criteria	1. Natural wind conditions **2. Stability of the policy environment** 3. Transmission capacity availability	1. PPA rate 2. PPA length **3. Stability of the policy environment**
3 Least Important Criteria	13. Investment / tax subsidies 14. Availability of engineering and construction expertise 15. Proximity to equipment manufacturers / suppliers	15. Availability of engineering and construction expertise 16. Net metering 17. Proximity to equipment manufacturers / suppliers

Results: criteria affecting attractiveness of a jurisdiction for renewable energy investment firms

	Wind firms (29)	Solar firms (8)	Technology manufacturers (15)
3 Most Important Criteria	1. Natural wind conditions **2. Stability of the policy environment** 3. Transmission capacity availability	1. PPA rate 2. PPA length **3. Stability of the policy environment**	**1. Presence of l-t gov't target for renewable energy** 2. Manufacturing gov't incentives **3. Stability of public policy for renewable power generation**
3 Least Important Criteria	13. Investment / tax subsidies 14. Availability of engineering and construction expertise 15. Proximity to equipment manufacturers / suppliers	15. Availability of engineering and construction expertise 16. Net metering 17. Proximity to equipment manufacturers / suppliers	16. Cost of electricity 17. Proximity to research centres / universities 18. Prior experience in jurisdiction

Results: Ontario ratings

	Wind firms (29)	Solar firms (8)	Technology manufacturers (15)
3 highest rated criteria in Ontario	1. Length of PPA 2. Transparency of PPA process 3. Availability of engineering and construction expertise	1. Length of PPA 2. Ease of obtaining rights to land 3. Transparency of PPA process	1. Cost of electricity 2. Proximity to transportation infrastructure 3. Availability of skilled labour
3 lowest rated criteria in Ontario	13. Ease of obtaining municipal approvals **14. Stability of the policy environment** 15. Coordination between government-related bodies	15. Availability of transmission cap **16. Stability of the policy environment** **17. Presence of l-t gov't target for renewable energy**	**16. Presence of l-t gov't target for renewable energy** **17. Stability of public policy for renewable power generation** 18. Cost of skilled labour

Key findings from the surveys

1. Renewable energy companies rate regulatory governance aspects as equally important as specific regulatory policies, and more important than operational factors on average, when assessing the attractiveness of jurisdictions for investment
   - i.e. *how* policies are made is critical for investors
2. The long-term stability of policy for renewable energy consistently ranks among the most important factors in private sector investment decisions among competing jurisdictions
3. In Ontario, the stability of renewable energy policy is rated as one of the weakest aspects of the investment environment

Renewable energy policy has been relatively unstable in Ontario since 2003

- Shifting renewable energy MW capacity targets
  - 2003 – initial targets publicly announced
  - 2005 – targets superseded by new long term planning process
  - 2008 – long term process adjourned
  - Future targets will be reviewed at least every 3 years
- Changing renewable energy policy instruments
  - 2006 RESOP introduced; 2008 RESOP suspended; 2009 original biogas RESOP re-instated; new FIT introduced
  - Sporadic RfPs for large private investments ('RES' process)
    - 2004 RES I; 2005 RES II and III; 2006 RES III postponed; 2007 RES III recommenced; 2009 RES process replaced with FIT
- Project approvals and permitting processes
  - Delays reported in obtaining all necessary permits

Regulatory governance structure in Ontario creates conditions for chronic instability in energy policy

- Powerful ministerial control of agency decisions
  - Authority to set IPSP renewable energy capacity targets; and to direct OPA to revise IPSP supply mix
  - Authority to initiate directives to OPA to procure new MW
  - Authority to direct pricing of renewable energy
  - Appoints OPA board members to 1-3 year terms
- Revolving ministerial appointments by Premier
  - Average tenure of minister of E&I since 2003 is 1 year
- Fragmented agency structure in implementing broad green energy policy objectives

Renewable energy developers have reacted strategically to perceived regulatory risks

1. Lower investment levels and jurisdictional priority for Ontario
   - Ontario is a "U.S. Production Tax Credit hedge"
     - U.S. independent power producer

2. Higher renewable energy project bid prices
   - "For the first time in RES III, we've had to price in these risks…It's very back of the envelope but it's definitely priced"
     - Canadian independent power producer

3. Lobbying and government relations
   - "Their [developers] futures will depend increasingly on political influence rather than business acumen"
     - Senior government official

Policy Reform Options

- Governance reforms that reduce policy risk will enable governments to attract more private sector investment and *at lower cost* to consumers and taxpayers
  - Stakeholder support possible from industry *and* consumers
- Reforms that insulate policy-making from short term political pressures will improve longer term stability and credibility
- Some options for 'de-politicizing' regulatory policy
  1. Limit degree of ministerial directive authority
  2. Use legislation to enshrine long-term carbon emissions or renewable MW targets
  3. Appoint agency board members to 5 year, staggered terms