Renewable Energy Projects
Opportunity or Challenge?

OMEX 2011 AGM Prof. Dev. Day

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Aird & Berlis LLP and Randy Williamson

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A partner of the firm, with ~ 30 years experience as a practising lawyer, qualified C.A., public company senior executive and three-time business owner/operator, Randy Williamson provides strategic advice to private companies, their owner/managers and strategic and financial investors, as well as public issuers, on acquisitions/divestitures, senior and subordinated debt and equity financings, and restructuring arrangements. Randy also helps businesses structure shareholder/partnership, employment, joint venture/development, outsourcing, distribution and licensing arrangements. Randy has a particular focus on Ontario's growing clean technology and renewable energy sector (the 'clean economy'), and works on Aird & Berlis' India initiative, advising Canadian and Indian corporations on mutual opportunities.

Randy devotes substantial time to community organizations, including as founding Chair of Big Brothers Big Sisters Alumni; Chair of the Investment, Finance and Audit Committee and Council Member at St. James Cathedral, Toronto; Vice-Chair and Investment Committee Member of the Toronto Atmospheric Fund; Vice-Chair of York University's Alumni Board; past Chair of the National Board of Big Brothers Big Sisters of Canada; past founding Board member of Ontario's Promise to Children and Youth; and past President of Advancing Canadian Entrepreneurship. Randy has been honoured with Queen Elizabeth II's Golden Jubilee Medal for Community Service and was twice Toronto's Big Brother of the Year.

Ontario's Feed-in Tariff (FIT) Program

- ***Green Energy and Green Economy Act, 2009*** **created the FIT Program, operated by the Ontario Power Authority (OPA) – in effect since September 2009**

- **OPA is the power purchaser from generators under standardized 20/40 year agreements – a creditworthy customer upon which to finance and develop renewable energy projects**

- **FIT Program can help Ontario achieve its announced Long Term Energy Plan (LTEP), expecting $87 billion in public and private sector investment to achieve**

- **LTEP anticipates that non-hydro renewables will represent 10-15% of the supply mix by 2018, with 10,700 MW of nameplate capacity**

Explosion of FIT Projects

- **~1,250 FIT projects in development/operation, with 3,100+MW of capacity – 60+% Wind, 30+% Solar PV (rooftop, groundmount), ~250MW Hydro and Bioenergy**
- **If all contracted projects are built, will represent about $9 billion in total capital invested**
- **Currently ~3,000 active applications (90+% Solar PV), representing ~10,500MW additional capacity (60+% Wind)**
- **To reach the LTEP 10,700MW goal, 5,000MW additional renewable energy contracts would eventually be contracted/built, with an additional $16+ billion in capital invested**
- **And this doesn't even count >25,000 microFIT (<10kW) offers and contracts (99% Solar PV), for 200+ MW, requiring $1-$1.5 billion to build**

Why is FIT So Popular? – Price/kwh!

Renewable Fuel	Project Size	Price/kWh
Rooftop Solar PV	≤10 kW	80.2¢
Rooftop Solar PV	> 10kW ≤ 250kw	71.3¢
Ground Solar PV	≤10 KW	64.2¢
Rooftop Solar PV	>250kW ≤ 500kw	63.5¢
Rooftop Solar PV	>500kW	53.9¢
Ground Solar PV	>10 KW ≤ 10MW	64.2¢
Wind Onshore	Any Size	13.5¢
Waterpower	≤10MW	13.1¢
Waterpower	>10MW ≤ 50MW	12.2¢
Bioenergy	Various Sizes	10.4¢ - 19.5¢

Basic Rooftop Development Steps

- **Developer identifies rooftop with good characteristics**
  - $0.25-$0.75 annually per sq. ft.; some offer one-time payment, or participation
  - Developer/building owner sign option for development period; lease form agreed
- **Developer applies for, receives FIT Contract offer**
- **Developer secures OEB license (if req.), panels, inverter, installation services, LDC connection, insurance, etc.**
- **Developer secures sufficient equity and obtains construction financing to complete project – completion value of up to $2.0 million for a 250kW project**
- **Upon commercial operation, developer turns project over to permanent owner at a value including profit**
  - Developers' profits likely in the ~10% range
  - Developers need many projects to make significant returns
- **With accelerated CCA, no taxes, high cash flow for 8+ years to permanent owner – generating low/mid teens returns**

FIT Contracting Process

- **Pre-application Planning**
  - Building Availability, Suitability, Rooftop Integrity, Facility Design
  - Secure “Access Rights”
  - Consider ownership, financing approaches
  - Consider LDC connection issues (and costs!)
- **Application**
  - Mandatory (Access Rights, connection details, etc., plus filing fee @$0.50/kW to $5,000 max)
  - Application Security, for non - Capacity Allocation Exempt (CAE) projects @$20/kW
- **Contract in 60-90 days (theoretically) for CAE projects; ‘batch’ processing for non-CAE projects (2 contract releases so far)**

Challenges for Developers

- Educating building owners on Rooftop opportunity
- Establishing credibility; separating developers from ‘promoters’
- If leasing, securing a form outside landlord normalcy
- Securing supply of ‘bankable’ and domestic content compliant PV modules and inverters
- Maintaining sufficient development equity, and accessing sufficient debt capital to develop many projects simultaneously
- Working through connection issues, costs with LDCs
- OPA program changes favour some, hurt others

Considerations for Building Owners

- Do you want a Solar PV facility on your building?
- Do you want to Own It? Lease your Rooftop?
- Credibility of developer – sector experience, capital sources, bankability of equipment, security of supply
- Affect on rooftop flexibility, membrane warranty
- Affect on realty taxes – may be less of an issue for a municipalities own buildings, but an issue for private owners
- Consider changes to rooftop, use, financing, ownership over a 20 year period

Development Partner Questions

- **How long in business; experience in renewables**
  - of developer and its related group; so few have been around long, so what brought them to the renewable energy development business
- **How many projects completed; expected to complete YE, 2012**
  - solar rooftop can complete quickly, so how many “notice to proceed”
- **How many facilities are being developed; how many MWs**
  - how many different building ownership groups; portfolio group are different
- **What is its financial credibility**
  - again, related group financing may be relevant
  - committed equity capital to development; intended construction/permanent debt
  - intention regarding post-commercial operation ownership; many will sell
- **What are the equipment/services arrangement/obligations**
  - are they tied into on manufacturer, installer – is that good or bad?

Development Partner Questions (cont'd)

- **What is its equipment 'domestic content' compliance plan**
  - will help determine how closely they work with suppliers
- **Equipment room, external access requirements**
  - are they tied into on manufacturer, installer – is that good or bad?
- **What is ongoing operations and maintenance plan**
  - will they do it, or outsource it
  - what are the preventative and standards
- **Rooftop warranties**
  - will help determine limits of buildings that are suitable
  - will also identify roofing companies they're working with
- **Insurance arrangements**
- **Local LDC relationship**
  - how many projects installed with it as the interconnection
  - what has LDC said about connection availability

Key Issues – For Rooftop Leases

- **Term – 20 years**
  - Longer than usual for landlords; requirement for FIT
  - Consider renewals for continued energy generation after year 20
  - Termination provisions, decommissioning and removal requirements
- **Landlord's interruption – under-roof tenant needs, re-roofing requirements**
- **Tenant Insurance – integration with Landlord's**
- **Non-Disturbance / Quiet Enjoyment**
  - Landlord not to impair sun resource
  - Landlord to obtain releases from its mortgagees
- **Permitted Assignments**
  - Developer requires release and assignment to subsequent owner(s)

Some FIT Challenges to Transmission and Distribution Operators

- FIT program's "right to connect" means many new independent generators – unfamiliar with connection/transmission issues
- short development cycles for renewable energy projects, and project attrition, changes priority of transmission/distribution choices
- intermittent nature of Wind/Solar PV electricity generation adds complexity to generation forecasting and grid balancing
- concentration of FIT and microFIT projects places pressure on local distribution companies – analytical, reliability and financial
  - "ability to connect" eligibility criteria added, notices of no connection
- pressure from developers to make quick/easy/cheap connection choices, perhaps at the expense of consistency/reliability
- Grid operators must consider impact of a looming election campaign, and the winner's promises regarding renewable generation and transmission priorities

What's in FIT's Future?

- **Lots of Adjustments – just as there have been since the start**
  - Stratifications (ground mount microFIT)
  - modifications of requirements ("ability to connect", extended Milestone Dates)
- **Required two-year review of FIT Program**
  - likely pricing reductions
  - new hurdles to eliminate applications, or a general moratorium?
- **Transmission/Distribution resources are the real limiter**
  - can't build a project if it can't connect – economic connection test changes?
- **Political considerations**
  - what will be the effects of each parties' election campaign promises

Conclusions

- **There's a worthy economic opportunity in FIT Projects**
  - whether as landlord, or as owner (in whole or part)
- **Selection of Development Partner is Key Ingredient**
  - as elsewhere, experience and backers matter
- **FIT Development not Straightforward**
  - notwithstanding intent for streamlined processes, it's still a development business
- **Political situation is the largest risk factor affecting FIT**
- **But, Renewable Energy Electricity Generation development will continue, regardless of program and governing party**

Thank You

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