



## Opportunities & Challenges For Urban Solar Projects

CANSIA Conference

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# Intro to the OEIA

- November 2007 - Incorporation in BC and launch as non-profit, non-partisan economic development association
- Founding group represents over three dozen Okanagan-based environmental industry companies
- BC Utilities Commission Intervener Status
  - Net metering, feed in tariffs, conservation programs, Advanced Metering Initiative
- SolarBC/City of Kelowna Solar Community Steering Committee
  - Kelowna Solar Community Workshops, May 11 thru 15, 2009
- Regional economic development partnership
  - Modeled on "Greenprint for Silicon Valley"



# Western Canadian Solar Landscape

- Western Canadian Solar Market Generally Constrained
  - Recessionary market flat from 2008
  - Cheap hydroelectricity and fossil fuels
  - Lack of grid capability for renewable energy
  - No or token feed in tariffs
  - PV market effectively “off grid” price insensitive applications
- Solar Hot Water Market Maturing Slowly
  - Constrained by regulatory problems/shortage of CANSIA trained installers
    - Resolutions on the horizon
  - Programs vary among the provinces

# Western Solar Challenges

- **Historical “complacency” about water & oil**
  - Now legendary 2008 BC Minister declaration: “No problem for 100 years!”
  - Historically cheap hydroelectric power and fossil fuels...
  - Hydroelectric & petroleum industry “political machines”
- **NRCan & Environment Canada Sound Alarm in 2008**
  - Western Weather extremes, significantly less precipitation and snow pack
  - *NRCan: “From Impacts to Adaptation: Canada in a Changing Climate” 2008*
    - “The issue of water shortages is quite a serious one,” ...and “could affect everything from agriculture to fisheries to *the production of hydroelectricity.*”  
- Ian Walker, University of Victoria

# Western Solar Challenges

- **BC Hydrological Forecasting Not Public**
  - Apparent BC Hydro proprietary/confidential information (?)
  - Contrast with California: publicly available on the Web
  
- **Smart Grid, Metering, FIT's Paralyzed**
  - Despite policy pronouncements, mostly political arm waving
  - **Smart Grid: resistance to open dialogue with stakeholders**
    - Offers to open dialogue with Google, GE, Intel, Cisco Systems, US DOE & Utilities
  - **BC Premier's 2007 call for "smart meters" is mired in bureaucracy**
    - No dialogue on "open system" design, rejected metering applications, lots of study \$\$\$
  - FIT's are stalled by hydroelectric politics
    - Water complacency, misinformation campaigns
    - Anti-FIT economic arguments based on abundant water, cheap fossil fuels
    - Lack of government leadership and vision

# Western Solar Challenges

- **Regulatory “hairball”**
  - Harmonization among local, regional, provincial and national regulations
  - CSA versus more stringent local regs, B64 “severe risk” designation
  - No permit to multiple permits required
- **Need for trade recognition for “solar technician”**
  - Industry credibility and growth demand it
  - \$200K damage to 120 panel SDHW system – unqualified plumber
  - Grants should be tied to installation by certified “solar” technicians only
  - SDHW skills are closer to HVAC than to plumbing
  - PV skills not exactly that of a journeyman electrician

# SolarBC: A Case Study

- **Immovable Object to Irresistible Force in 4 Years**
  - **2005: BC Ministry of Environment & NRCan Preliminary Talks**
  - **2006: Pilot program for 50 SDHW installations**
  - **2007: BC Solar Summit – 50 key solar decision makers**
    - **Ambitious target for 100,000 “solar roofs” agreed**
  - **2007: Official Birth of SolarBC with \$5 Million in joint funding**
    - **NRCan, BC Provincial Gov’t, EAGA Canada Ltd., and BCSEA**
  - **2008: 7 BC Solar Community Programs formed**
  - **2009: SolarBC Programs Expand and Evolve**
    - **BC solar communities grow to 9, including Whistler, more due to join**
    - **Collaboration & lobbying efforts with NRCan, regional and provincial governments**
    - **Dialogue with BC regulatory community**
    - **Gerhardt Stiri-hypp keynotes Kelowna Solar Community event**

# SolarBC: A Case Study

- **SolarBC Achievements:**
  - 23 “registered SolarBC installers” with more due online
  - 10 approved SolarBC equipment manufacturers listed
  - Relationship building with local regulatory agencies
  - 8 municipal projects across BC, 23 school projects funded
  - BC SDHW market fastest growing in Canada
  - BC SDHW market equal to other 3 western Provinces combined.
- **SolarBC Lessons Learned:**
  - Set goals and get moving – ignore market constraints
  - Collaboration and communication among communities

# Western Solar Opportunities

- A Prediction:
  - Western Canadian Solar Market Poised for Exponential Growth
- Build Solar Industry Credibility
  - Require “certified solar technicians” for grants
- Replicate SolarBC Success in other Provinces

# Thank You

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