Developing a Nova Scotia Solar Roadmap

Presentation to NS Solar Summit – December 4, 2019

Lyle Goldberg, Policy and Regulatory Affairs Manager
Canadian Solar Industries Association

CanSIA

PRESENTATION OUTLINE

1. About CanSIA
2. Why develop roadmap
3. 12 recommendations to unlock Nova Scotia's solar potential
4. Conclusion
5. Next steps/questions

About CanSIA

WHO WE ARE AND WHAT WE DO

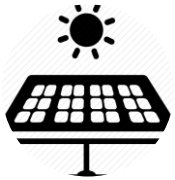
- **CanSIA is a national trade association advocating on behalf of the solar industry in Canada since 1992**
  - over 200 members across Canada
- **Work collaboratively with legislators, regulators and program designers at all levels of government**
- **Raise public awareness about the benefits of solar**
  - ***NS Go Solar Guide***
- **Offer Consumer Protection Program that benefits members and their customers**
- **Hired Policy and Regulatory Affairs Manager for NS in July 2018**
- **In November 2019 CanSIA and CanWEA members voted to merge both organizations to become a multi-tech association**
  - New org becomes official on July 1, 2020 with a mandate to include wind, solar and storage

Why develop Solar Roadmap?

Photo courtesy of Solar Global Solutions

WHY DEVELOP NS SOLAR ROADMAP?

Help meet Paris Agreement/Provincial GHG and renewable targets



Transition NS grid from “coal to clean”

Create green jobs across the province

Help offset increased use of electricity through space and water heating and EV’s

Help lower energy costs in homes and buildings

UN EMISSIONS GAP REPORT – NOVEMBER 2019

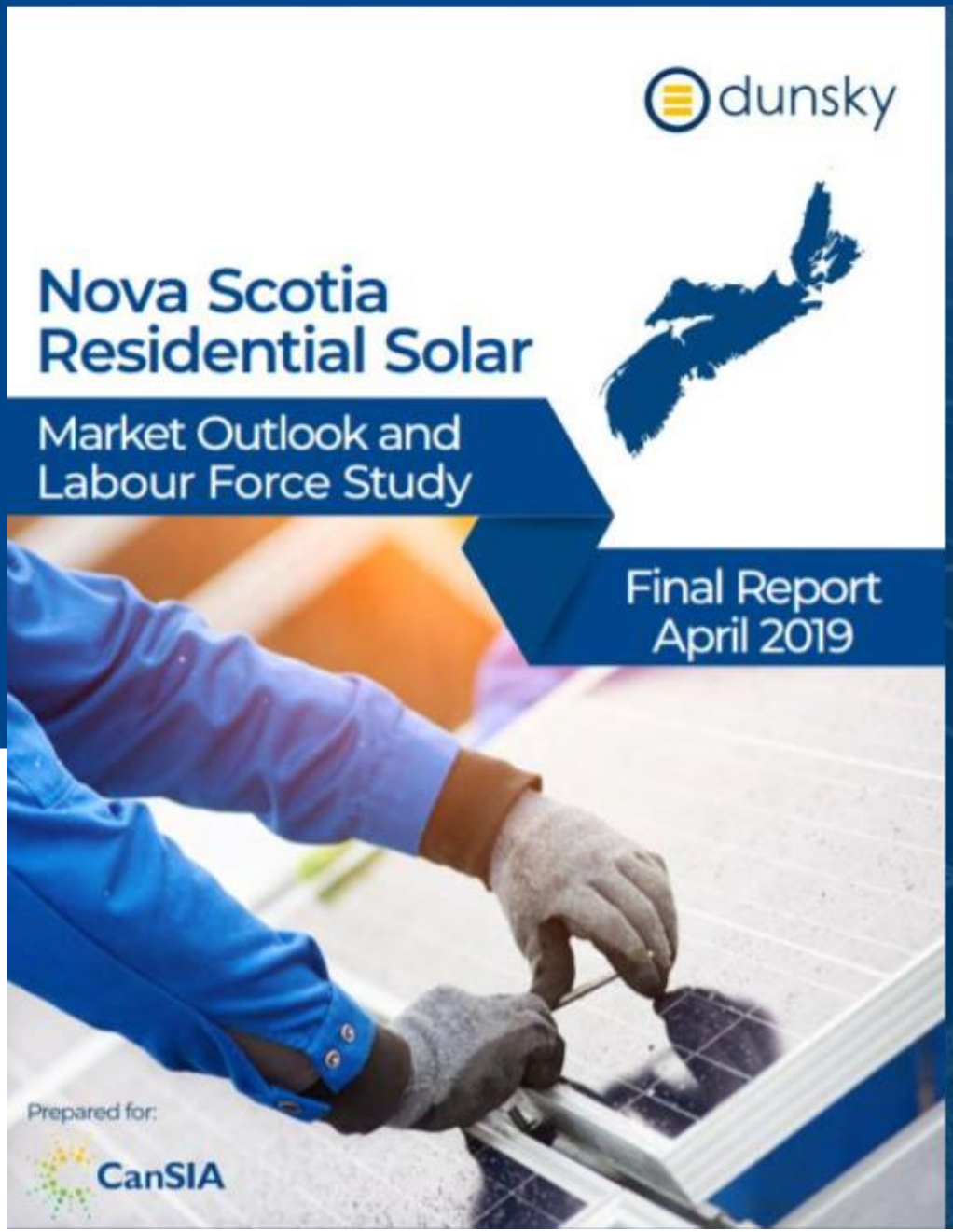
- Planet on course to be 3.2 degrees Celsius hotter under current policy commitments.
- Reducing global temperature rise to a maximum 1.5 degrees Celsius will require GHG emissions to fall 7.6% per year for the next ten years.
- ***Clean energy deployment needs to happen six times faster.***
- Otherwise the world will have no hope of keeping temperatures less than 1.5 degrees Celsius hotter than in pre-industrial times.

Nova Scotia's Solar Potential

Photo courtesy of Solar Ascent

NOVA SCOTIA'S SOLAR POTENTIAL

- **Under ideal conditions, a well-sited solar array in Nova Scotia – a south facing roof at 45 degrees – produces about 1100 kWh annually.**
- **NS ranks somewhere in the middle of the pack when compared to other provinces.**
- **Receives more annual sun hours than Germany which is a world leader in solar PV.**
- ***Ranked # 1 for residential solar in Canada by Energyhub.org as a result of SolarHomes Program, PACE financing options, and having reasonably low installation costs.***
- **Enhanced Net Metering also shortens payback period.**


dunsky
Nova Scotia
Residential Solar
Market Outlook and
Labour Force Study
Final Report
April 2019
Prepared for:
CanSIA

STUDY TAKEAWAYS

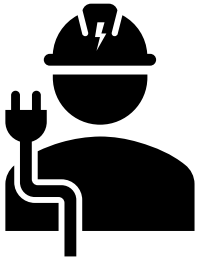
- According to the study, by 2030…

190 GWh solar electricity

22,000 homes to install solar PV

1.8 % of Nova Scotia energy consumption

960,000 tCO2e reduction over 30 years



Over **1100** jobs

How to Unlock Nova Scotia's Solar Potential: 12 Recommendations

ELIMINATE 100 KW NET METERING CAP

- ***That the Department of Energy and Mines work with Nova Scotia Power, CanSIA and CaGBC Atlantic to find solutions to the current 100 kW Net Metering Cap.***
- ***One solution - limit annual solar PV production to annual consumption with excess electricity credits expiring on an annual basis.***

INTRODUCE VNM AND TPO WHILE PROMOTING SOLAR AFFORDABILITY/ACCESS

- ***That the Province create regulatory changes to enable virtual net metering and third party ownership in the development of utility-scale renewable energy projects.***
- ***That the Province facilitate the development of utility-scale community solar projects that would open up access to solar for all Nova Scotians. These projects could be developed in partnership with NSPI, municipal utilities, third parties or a combination of all three.***
- ***To enable virtual net metering between distribution zones, CanSIA proposes establishing a project size limit based on consultation with the Department of Energy and Mines and NSPI. The total annual solar output from the facility should be less than or equal to the consumption of participating loads. This can be achieved through annual expiry of net metering credits.***

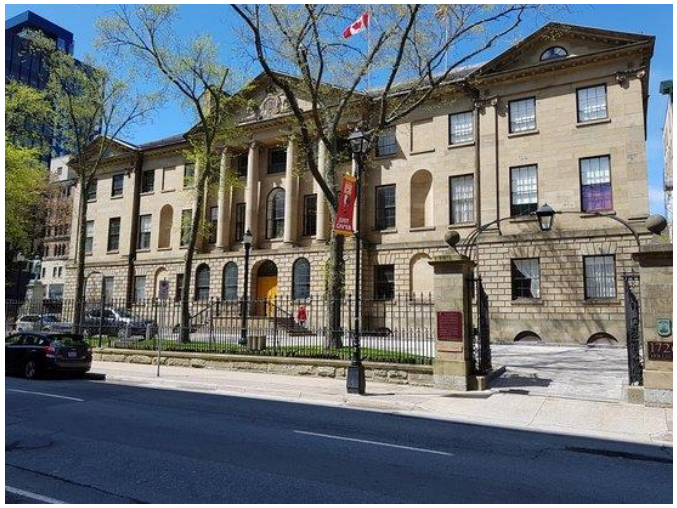
SET IN LEGISLATION 2030 PROVINCIAL TARGETS FOR GHG REDUCTIONS AND RENEWABLES

- **Sustainable Development Goals Act introduced in October 2019**
  - GHG emission reduction target set at 53 per cent below 2005 levels by 2030
  - Move Nova Scotia to a net zero carbon footprint by 2050
  - Climate Change Action Plan developed by 2020
  - ***No 2030 renewable target set***

- ***CanSIA's recommendation: That the Province set a 2030 renewable energy target of at least 50% from local sources, with a solar set-aside representing at least 5% of total electricity production.***

PROVINCIAL OPERATIONS POWERED BY 100% RENEWABLES

- ***That the Province commit to powering their own operations with 100% renewable electricity by 2030 and that this be enshrined in the Sustainable Development Goals Act.***
  - *Would mirror Federal goal of 100% renewables by 2025*



ESTABLISH NS AS A "SOLAR-FRIENDLY" PROVINCE

- ***That the Province partner with CanSIA to prepare report outlining best practices in the areas of municipal permitting, inspections and interconnection with the results communicated to all relevant parties.***
- ***That the Province work with NSPI to ensure the success of their new process to reduce wait times with respect to booking the rough-in inspection and installing the bi-directional meter.***
- ***That the Province work with NSPI to provide ongoing training for all NSPI staff conducting solar inspections.***

SOLAR FRIENDLY COMMUNITIES

DEVELOP PROVINCE-WIDE RESIDENTIAL PACE PROGRAM

- ***That a province-wide PACE program be developed (excluding HRM) with loan amounts up to $25,000, with a payback period of at least 20 years and no one-to-one debt-savings ratio.***
- ***Project partners to include:***
  - *Province*
  - *Halifax Solar City*
  - *Efficiency Nova Scotia*
  - *Clean Foundation*
  - *CanSIA*
  - *Solar NS*
  - *NS Federation of Municipalities*
  - *Association of Municipal Administrators*
  - *Federation of Canadian Municipalities*

EXEMPT HST FROM SOLAR PV INSTALLATIONS

- ***That the Province consider exempting the provincial portion of the HST on solar PV installations.***
- ***That the Province lobby the Federal Government requesting exemption of the Federal portion of the HST on solar PV installations.***

CONSIDER LARGE BATTERY STORAGE PILOT PROJECTS AT THE UTILITY AND COMMERCIAL-INDUSTRIAL SCALE

- ***That large utility-scale solar projects that include battery storage be explored by utilities, third parties and other key stakeholders.***

BUILD A STRONG SOLAR LABOUR FORCE THROUGH ESTABLISHING TRAINING STANDARDS

- ***That CanSIA and the Province formalize a partnership, including Efficiency Nova Scotia and Solar Nova Scotia, to pilot the development and implementation of a Training Standard for Solar PV Installer based on Electricity Human Resources Canada's National Occupational Standard for Solar PV Installer.***

Photo courtesy of Solar Ascent

ESTABLISH A PROVINCE-WIDE CONSUMER PROTECTION PROGRAM

- ***That CanSIA work with the Province and industry partners to establish a Consumer Protection Program to help regulate the solar industry within the province.***

- ***CanSIA has Consumer Protection Program designed to:***
  - *Educate consumers – NS Go Solar Guide*
  - *Investigate consumer complaints*
  - *Self-regulate industry practices*
  - *Enforce consumer protection standards*

CanSIA

ENCOURAGE CONSTRUCTION OF SOLAR READY HOMES

- ***That CanSIA partner with The Canadian Home Builders' Association - Nova Scotia, Efficiency Nova Scotia and other key stakeholders to develop a Solar-Ready Homes Strategy***
- **Roof space/PV conduit**

DEVELOP SOLAR SCHOOLS PROGRAM

- ***That the Province partner with Solar Schools Canada to develop a program that would ensure solar panels are installed on all new schools and that curriculum is developed to engage teachers and students in this process.***

Membertou Elementary School

Conclusion

CONCLUSION

- **Moving NS to zero carbon by 2050 will require increased deployment of solar/storage in combination with other renewable technologies**
- **UN Emissions Report states shift to renewables needs to happen six times faster to meet Paris Agreement targets**
- **Potential for serious job creation in green sector (CanSIA and EAC reports)**
- **While all recommendations important, CanSIA's top priorities include:**
  - Develop regulations to facilitate Virtual Net Metering and Third-Party Ownership to develop large-scale projects that promote solar affordability and access
  - Eliminating 100 kW Net Metering Cap
  - Set in legislation 2030 renewable energy target

Next Steps…

NEXT STEPS…

- CanSIA to develop implementation strategy to address recommendations
- Work in conjunction with Province, solar industry and other key stakeholders

Want to learn more?

- Copies of presentations
- Copies of NS Residential Solar and other NS briefing documents and studies: https://www.cansia.ca/policy-briefs-and-submissions.html

Contact Info:

Lyle Goldberg

CanSIA

902-471-0173

lyle@cansia.ca

CanSIA
CANADIAN SOLAR INDUSTRIES ASSOCIATION | L'ASSOCIATION DES INDUSTRIES SOLAIRES DU CANADA