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Ontario	**TREASURY BOARD / MANAGEMENT BOARD OF CABINET REQUEST ASSESSMENT NOTE**
	Ministry: Environment and Climate Change
	Meeting Date: April 24, 2018
	Agenda Class: Discussion
	Last reviewed by: N/A — **Tracking to:** Cabinet – April 24, 2018
SUBMISSION TITLE:	Green Ontario Fund – Solar Technologies Incentive Program and Indigenous Communities Pilot

I. DECISION BEFORE THE BOARD

The Ministry of the Environment and Climate Change is requesting approval for the Green Ontario Fund to announce and launch the Solar Technologies Incentives Program, and to announce the Indigenous Communities Pilot.

II. RECOMMENDATIONS

Authorize the Ministry to announce the solar technologies incentives program and invite program applicants to submit their interest in obtaining program information and contractors to submit an application to be assessed against program criteria for installers.	*Authorize*
Authorize the Ministry to announce the Indigenous Communities Pilot.	*Authorize*
Direct the Ministry to not enter into any transfer payment agreements related to program delivery of the Solar Technologies Incentive Program and the Indigenous Communities pilot until the Green Ontario Fund has reported back to TB/MBC with implementation plans, including plans for monitoring and reporting on outcome measures for these programs.	*Direct*
Direct the Ministry to work with Cabinet Office, Treasury Board Secretariat and the Ministry of Finance on an integrated communication strategy prior to a funding announcement associated with the Solar Technologies Incentives Program and Indigenous Communities Pilot.	*Direct*
Direct the Ministry to continue to work with the Ministry of Indigenous Relations and Reconciliation related to the Indigenous Communities Pilot.	*Direct*
Direct the Ministry to continue to work with the Ministry of Energy related to the Solar Technologies Incentives Program on minimizing impacts to the electricity system and to non-participating ratepayers.	*Direct*
Direct the Ministry to report back to TB/MBC, prior to Green Ontario Fund entering into any participation agreements with program applicants related to the solar technologies incentives program, with details on how the program has been designed to minimize electricity system and non-participating ratepayer impacts and to align with new consumer protection measures under Ontario's net metering regulatory framework.	*Direct*

III. FINANCIAL SUMMARY

$ Millions	**2018-19**	**2019-20**	**2020-21**

Initiative cost requested	0.0	0.0	0.0
Initiative cost recommended	0.0	0.0	0.0

Offset recommended	0.0	0.0	0.0
Total Fiscal Impact	0.0	0.0	0.0

IV. Key Comments and Considerations

Request

The Ministry of the Environment and Climate Change (MOECC) is seeking Treasury Board/Management Board of Cabinet (TB/MBC) approval to announce two initiatives under the Green Ontario Fund in early 2018-19:

- The Indigenous Communities Pilot
- The Solar Technologies Incentives Program; and,

The Ministry will manage all 2018-19 funding from within its approved allocation, subject to the availability of proceeds, and has been engaged with the Ministry of Energy and will continue to engage on program design and implementation.

Background

The Ontario Climate Change Solutions Deployment Corporation (OCCSDC), subsequently trademarked as the Green Ontario Fund, was established on February 14, 2017 as a board-governed agency under the Agencies and Appointments Directive, through Ontario Regulation (O. Reg.) 46/17 under the *Development Corporations Act*. The Green Ontario Fund is mandated to stimulate the development of industry, trades and business undertakings in the province that further the deployment of technology that is commercially available and reduces GHG emissions from buildings and from the production of goods.

Indigenous Communities Pilot

On December 7, 2017, the Green Ontario Fund indicated its intent to support select Indigenous Communities through pilot projects, and received TB/MBC approval for program design of the pilots. The Green Ontario Fund has been approached by select Indigenous communities who are seeking to implement components of their Community Energy Plans that will improve the energy efficiency of building envelopes for residential and commercial properties, deploying lower carbon technologies.

In 2018-19 the Green Ontario Fund will continue its planning on a design of a broader program that can support this stakeholder group, working with Indigenous communities to assess their requests and support those with favourable evaluations as pilot communities. In the interim, it seeks to additionally hold the potential to establish agreements with a select few communities for which discussions on a prospective pilot have been active since mid-2017-18. Examples can be found in Appendix C.

Solar Technologies Incentives Program

On May 30, 2017, the Green Ontario Fund received TB/MBC approval to implement incentives that would support the deployment of specific low carbon measures such as insulation, windows, air source heat pumps, ground source heat pumps and solar technologies for both residential and commercial applications and had identified the Independent Electricity System Operator (IESO) for implementation.

Mid-year, the IESO informed MOECC that it could not implement low carbon technology rebates for low-income households, Indigenous communities, multi-unit residential buildings, and commercial buildings, and it could not support the implementation of other business-

IV. Key Comments and Considerations

focused programs. As a result program re-alignments were undertaken in December 2017, and some program activities were not implemented as a part of 2017-18 program activities.

Commented [CS(1]: ENERGY recommends that this paragraph be removed since it is not relevant to MOECC's proposal to change the delivery agent of the Solar Technologies Incentive Program from IESO to LDCs.

Program Overview

The Ministry maintains their interest in supporting the deployment of solar technologies in Ontario, and as a result, proposes the establishment of a solar technologies incentives program where the implementation will include local electricity utilities (also referred to as Local Distribution Companies (LDCs)). The proposal does not include any changes in program design, but changes the delivery agent of the program from IESO to LDCs.

The program will provide rebates for the installation of renewable energy supply in the form of solar photovoltaics (PV), energy storage, or a combination of the two in both residential and commercial applications. The program will support grid-connected and off-grid installations. Grid connections would be limited to 70 megawatts capacity overall distributed as a cap of 20 megawatts for residential installations and 50 megawatts for commercial applications (to be reviewed by the Green Ontario Fund following this initial program phase).

Rebate offers under a solar technologies incentives program would be implemented in a manner that is consistent with the process established for GreenON Rebates. Property owners would be able to contact the Green Ontario Fund through its website or call centre to seek advice or information that will help them identify how to undertake a full home/building assessment (For eligibility Requirements, see Appendix E). The full home assessment would be channeled through the 'Home Energy Conservation Program'. The building assessment could be supported through the small and medium sized business support program that will be launched by the Green Ontario Fund in Spring 2018.

The difference in a homeowner/businesses' journey through the solar technologies incentives program will depend on whether they intend to connect to the electricity grid in Ontario that is managed by the IESO.

- Those homeowners/businesses who are not connected to the electricity grid following the installation of their solar technology, are able to work directly with a program recognized contractor to install the technology and subsequently seek a rebate. These include, for example, homeowners in Northern and remote communities where there is no electricity supply in the area.
- Those homeowners/businesses, who intend to connect to the grid, will follow a customer journey adapted from IESO/LDC experiences in running FIT and micro-FIT as illustrated in Appendix D.

Fiscal Implications

On March 20, 2018, through the 2018-19 Greenhouse Gas Investment Plan (GHGIP), Treasury Board / Management Board of Cabinet (TB/MBC) authorized the Ministry of the Environment and Climate Change (MOECC) to draw down from the Greenhouse Gas Reduction Account (GGRA) $525 million in 2018-19, subject to the availability of cap and trade proceeds and future report backs to TB/MBC, to continue to implement the Green Ontario Fund and its programs. In addition, TB/MBC approved $102M in interim payment authorities under section 15 of the Financial Administration Act in 2018-19 for the Green Ontario Fund.

IV. KEY COMMENTS AND CONSIDERATIONS

Green Ontario Fund Allocation ($M)			
	2018-19	2019-20	2020-21
Approved Multi-Year Allocation*	$525.0	$350.0	$300.0

*Subject to 2018-19 Cap and Trade auction proceeds

For the above-noted programs, the Green Ontario Fund will not enter into transfer payment agreements until TB/MBC confirms the availability of proceeds through the GGRA for its 2018-19 budget, and MOECC will report back on the Green Ontario Fund's spending plan for 2018-19 before any proceeds can be flowed to participants.

Given the cycle of forecasting needs, requesting funds, seeking approval for interim payment authorities, and reviewing performance, the Ministry and Green Ontario Fund are establishing a process to manage the potential risk of low cap and trade proceeds in future auctions. Green Ontario Fund will continuously determine the potential need to scale back/triage programs if funding is not at anticipated levels.

Key Considerations and Risks

- Stakeholder feedback is anticipated to be mostly supportive, with potential concerns coming from Indigenous communities about ensuring programs are designed to meet their unique circumstances, consumer advocates about contractor fraud, and from the Ministry of Energy
    - The Ministry of Energy has expressed the following concerns:
        - The program will yield limited GHG reductions, as the electricity system is already relatively clean and there are limited and expensive options for delivering further GHG savings from the system;
        - Net metering allows residential customers to avoid paying some or all commodity costs for delivered electricity, including the Global Adjustment (GA) and transmission costs. Avoiding these costs reduces the pool of total customers paying these costs, which increases per-unit electricity costs for non-net-metered customers.;
        - Ontario's current net metering framework already provides for an appropriate incentive for solar PV. It is designed to align compensation to generators with the value net metering provides to Ontario's electricity system, as well as to fairly allocate costs and benefits among all ratepayers.
        - The electricity grid is at capacity in many areas and is not able to accept new connections, thus the program will not have the ability to be available province-wide; and,
        - Consumer protection issues related to past experience with the IESO-administered micro-FIT programhave the potential to persist.

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  - The ministry is taking steps to mitigate these concerns (See Appendix F for details on Stakeholder positions)

- The Green Ontario Fund has an allocation of $525 million, and interim payment authorities of $102M under section 15 of the Financial Administration Act, in 2018-19. Through the 2018-19 PRRT, as included in the 2018-19 GHGIP minutes, MOECC was required to report back to TB/MBC on how the Green Ontario Fund would use funding as a whole prior to spending in 2018-19. This request is a subset of the 2018-19 plan and the Ministry has not provided a comprehensive picture on their overall 2018-19 spending plan at this time.

- The Solar Technologies Incentives Program and Indigenous Communities Pilots have existing program design approvals from TB/MBC. As a result, the ministries will be directed to report back on implementation plans related to the initiative. In addition, before any programs are implemented, or participants receiving funding, cap and trade proceeds will need to be realized and prioritized to these projects.

- Should cap and trade proceeds be less than realized the Green Ontario Fund should consider the scalability and prioritization of projects given it intends to announce a funding amount publically for both the Solar Technologies Incentives Program and the Indigenous Communities Pilot Program.

- The proposed pre-conditioning announcement might elicit confusion as to whether people can actually sign up for the program and get solar installed right away. MOECC will mitigate this by emphasizing sign-up for installations will begin in Summer 2018 and that interested individuals should sign up for alerts by GreenON to get more detailed information on solar in the weeks to come.

Performance Measures and Outcomes

The establishment of Green Ontario Fund contributes to one of the Ministry’s KPIs, of achieving GHG emission reduction targets. The target is 36.4 million tonnes of carbon dioxide equivalent by 2050 from a current value of 170.2 million tonnes in 2014. The ministry has also noted that performance will be assessed by the number of households and businesses participating in programs offered by the agency.

In addition to being required to report on actual GHG reductions achieved, the Green Ontario Fund will track the following additional program-specific measures of its TP Recipients:

- Economic co-benefits (e.g. number of direct and indirect jobs supported, geographic distribution of supported projects)
- Environmental co-benefits (e.g. air quality improvements, waste reduction)
- Social co-benefits (e.g. public health)
- Collaborative partnerships and funding leveraged
- Impact on buildings and good productions sector as a result of supported projects

For this initial proposed roll-out of the solar technologies incentives program, the Green Ontario Fund will track the number of respondents.

IV. KEY COMMENTS AND CONSIDERATIONS

The ministry is encouraged to ensure standardized performance measures and indicators are implemented to track progress towards each of the outcomes identified above. A process for data collection and reporting on these outcomes is required.

In addition to the above outcomes, the ministry is encouraged to report on outcomes related to reduced costs/financial burden to vulnerable persons and communities. Where possible, the ability to disaggregate outcomes by the various streams of rebates (residential/commercial and grid-connected/off-grid installations) is recommended.

The ministry is also encouraged to ensure performance monitoring and tracking is in place related to key risks such as the potential for contractor inflation of installation equipment costs.

Outcomes, performance measures and data collection specific to the Indigenous Communities Pilots should consider Indigenous perspectives and culturally appropriate measures, which inform progress towards desired outcomes, and drive continuous improvement, where required.

Next Steps

The Ministry has identified a phased, proactive and integrated communications approach to announce the consumer- and commercial-focused solar rebates program, with projected timelines as follows:

- Late April, 2018 (preconditioning):
    - An announcement by the Ministry that the program is coming soon, signaling Ontario's commitment to encourage the deployment of solar technologies and help residents and businesses save money and fight climate change.
    - This would include an event, news release, social media engagement via GreenON channels with MOECC support, web updates to GreenON.ca and Ontario.ca, and a call to action to interested residents and businesses to sign up for GreenON alerts.
- Summer 2018 (launch):
    - Green Ontario Fund launch of the program, with an event, news release, web updates and opportunity for paid marketing and social.

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Date:	{ DATE \@ "MMMM d, yyyy" }	**Log number:**	
Branch / Division:	Education, Resources and Economic Development Branch/OEMD		

Appendix A: Proposed Minute

Receive the Ministry of the Environment and Climate Change's (MOECC) report back on the Green Ontario Fund's Solar Technologies Incentives Program and Indigenous Communities Pilots.

In this regard the Board,

i) Authorize the Ministry to announce a Solar Technologies Incentives Program that invites program applicants to submit their interest in obtaining program information and contractors to submit an application to be assessed against program criteria for installers.

ii) Authorize the Ministry to announce the Indigenous Communities Pilots.

iii) Direct the Ministry to not enter into any transfer payment agreements related to program delivery of the Solar Technologies Incentive Program and the Indigenous Communities Pilots until the Green Ontario Fund has reported back to TB/MBC with implementation plans, including plans for monitoring and reporting on outcome measures for these programs.

iv) Direct the Ministry to work with Cabinet Office, Treasury Board Secretariat and the Ministry of Finance to develop an integrated communication strategy prior to a funding announcement associated with the Solar Technology Incentives Program and Indigenous Communities Pilots.

v) Direct the Ministry to continue to work with the Ministry of Indigenous Relations and Reconciliation related to the Indigenous Communities Pilot.

vi) Direct the Ministry to continue to work with the Ministry of Energy related to the Solar Technologies Incentives Program on minimizing impacts to the electricity system and to non-participating ratepayers.

vii) Direct the Ministry to report back to TB/MBC, prior to Green Ontario Fund entering into any participation agreements with program applicants related to the solar technologies incentives program, with details on how the program has been designed to minimize electricity system and non-participating ratepayer impacts and to align with new consumer protection measures under Ontario's net metering regulatory framework.

APPENDIX B: FINANCIAL TABLES

FINANCIAL IMPACTS: CHANGES TO EXPENSE AND REVENUE				TABLE B1
	Fiscal Plan Basis			Appropriations Basis
$ Millions	**2018-19**	**2019-20**	**2020-21**	**2018-19**
Initiative cost recommended	0.0	0.0	0.0	
Changes:				
Operating Expense	0.0	0.0	0.0	0.0
Capital Expense	0.0	0.0	0.0	0.0
Capital Asset	0.0	0.0	0.0	0.0
Offsets: Expense	0.0	0.0	0.0	0.0
Total Fiscal Impact	**0.0**	**0.0**	**0.0**	**0.0**

Appendix C: Indigenous Communities Pilot Examples

Transfer payment agreements with two Indigenous communities were executed in March 2018 for modern wood heating pilots, and the agency continues to assess new requests. Some examples include:

- Whitesand First Nation has requested funding to support a community project that will replace or displace GHG-intensive heating in 100 residential buildings (single family dwellings, duplexes and multi-plexes) on the Reserve with efficient wood pellet heating systems. Most of these heating systems currently rely on fuel oil. This proposed project is a component of a broader Community Sustainability Initiative in which Whitesand First Nation aims to develop a bio-economy centre for the manufacturing of wood pellets, and the switching of heating systems of other residential properties on the Reserve. The Ministry of Natural Resources and Forestry is currently considering the request for funding from the community for the establishment of the bio-economy centre.

- Lac de Milles Lacs Reserve (LDMLFN) has requested funding to displace some of its use of diesel and propane for electricity, heating and cooling. Funding would support the construction of a solar-battery microgrid to serve two community facilities, installation of 48 off-grid solar PV and battery systems to serve 48 single family homes that are under rehabilitation following flooding, and the installation of a community energy management system that includes a weather station, wi-fi thermostats/internet of things sensors and wireless network upgrades. This community is off-grid and has relied on diesel and propane for its electricity and heating needs. Due to extensive flooding, residents had to leave the community and are now in the process of community rehabilitation.

- Wikwemikong has requested funding to support the installation of energy efficiency measures and a community solar micro-grid that will operate in conjunction with the existing Hydro One grid.

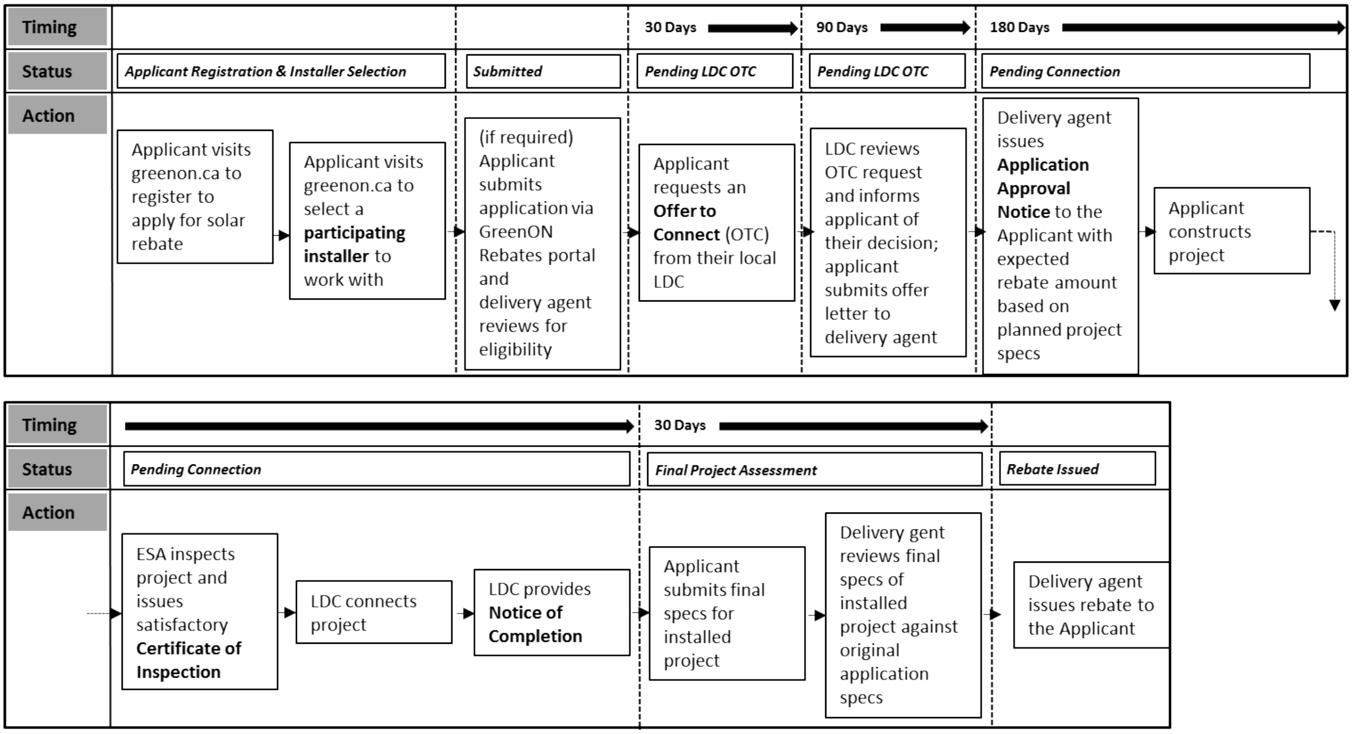
- Oneida has requested funding to replace or displace GHG-intensive heating in eight community buildings on Reserve by replacing propane-fed boilers and heaters with electric air source heat pumps, retrofitting building envelopes, and installing grid connected solar-PV systems.

- Taykwa Tagamou Nation (TTN) is seeking support for the construction of a 650 kiloWatt rooftop solar PV, and to install the following at in single family homes and four community buildings in the community:
    - one wood fired central boiler and heat distribution system;
    - Envelope upgrades including window and door replacements and insulation upgrades.

  TTN is connected to the grid and serviced by Hydro One. The community is not connected to natural gas pipelines and relies on a mix of wood, oil and propane for heating.

- Akwesasne has requested funding to support energy efficiency measures, such as upgraded windows, doors, insulation for 250 homes on Cornwall Island.

APPENDIX D: SOLAR TECHNOLOGIES INCENTIVE PROGRAM- CUSTOMER JOURNEY



Installer may be authorized to support participant through the process by completing paperwork on their behalf similarly to other rebate programs

This process is similar to the customer journey used by Efficiency Alberta in its Residential and Commercial Solar Program.

The following are built-in measures ensuring consumer protection which are significant to the design of this introductory offer:

- A direct relationship between the LDCs and the property owners adopting the technology
- A limit in the size per residential or commercial installation; and
- A limited incentive level that is just enough to make an impact on timeframe for return on investment.

APPENDIX E: ELIGIBILITY REQUIREMENTS

The following represents the current view of homeowner/business eligible and installation project eligibility:

To be eligible, a homeowner is expected to:

- Apply for the installation at an Ontario address;
- Have a residential customer account with an LDC or be an off-grid project that will displace diesel generation or other fossil fuels;
- Own the solar PV installation when installed (e.g. no third party ownership) – criteria may be updated after any updates to net metering requirements in Ontario.

  The residential project would be expected to meet the following:
  - Be located on the existing rooftop structure of a single-family home (including detached, semi-detached, townhomes, and row houses, etc.)
  - Not have been constructed or installed prior to the launch of the program

To be eligible, a business is expected to:

- Be a Registered business in Ontario
- Own the commercial property where the project will be constructed, or in leasing arrangements, have the approval of the landlord
- Have a General Service of less than 50 kilowatts, Class B or Class A account with an LDC or have an off grid project that is displacing fossil fuels

  The commercial project would be expected to meet the following:
  - Be a net metered project or be located wholly behind the meter of an existing load or be an off-grid project that is displacing fossil fuel use
  - The solar installation would not have been constructed or installed prior to the launch of the program
  - The proposed equipment will be located entirely on the rooftop of an existing building
  - The existing building will have sufficient usable surface area for the rooftop solar project, and be suitable from a structural standpoint to support the rooftop solar project
  - Solar thermal project will be constructed on an existing commercial building and connected to an existing HVAC system
  - Solar PV system will have a maximum nameplate capacity of 500 kW and a minimum nameplate capacity of 10 kW

To be eligible as a program recognized contractor/installer of technologies, the business is expected to:

- Have an Harmonized Sales Tax registration number and either a Master Business License or Articles of Incorporation valid for at least two years;
- $2 million in liability insurance;
- $1 million in automotive insurance;
- A letter of clearance from the Workplace Safety and Insurance Board (not required for sole proprietor);
- Participation in the incentives program orientation training.

- A market scan conducted by the IESO has determined that there is currently no certification regimen for solar PV installers in Ontario. Solar PV installations, however, are subject to Ontario’s Electrical Safety Authority and to municipal permitting processes. In lieu of certification or other training, the incentives program orientation training can require installers to complete a best practices orientation at the time registration is confirmed to demonstrate solar installation experience.

APPENDIX F: STAKEHOLDER/PARTNER POSITIONS

STAKEHOLDER	POSITION/CONCERN/ISSUE	MINISTRY STRATEGY
Residential Consumers	Residential stakeholders are anticipated to be supportive of new program offerings, particularly those located in remote and rural parts of Ontario that are off-grid. There may be concern in some areas where connectivity to the grid is limited due to local or upstream connection constraints. Residential stakeholders in Indigenous communities are anticipated to be supportive of pilot project opportunities in selected communities.	MOECC and Green Ontario Fund to continue to solicit input from the ENERGY and IESO on a consumer-friendly campaign that can build on the framework established by the FIT and micro-FIT programs while supporting awareness and outreach on new Green Ontario Fund program offerings. Green Ontario Fund will work with LDCs to monitor uptake of program offerings and conduct satisfaction surveys. Green Ontario Fund will monitor the implementation of pilots in Indigenous communities.
Commercial and Industrial Consumers	Positive, as these consumers will have access to new sources of energy and financial assistance. Potential confusion with the segregation of a solar rebate from other business programs offered by the Green Ontario Fund that are administered by the Ontario Centres of Excellence. No anticipated concerns with proposal to support pilot projects with Indigenous communities.	Green Ontario Fund will ensure that program communications for the GreenON Industries and GreenON SME Support programs identify the appropriate application process for a solar technologies rebate Green Ontario Fund will continually assess uptake of programs and conduct satisfaction surveys.
Low-carbon technology providers	Companies with eligible technologies for deployment will be supportive of the proposed Green Ontario Fund program offerings.	Green Ontario Fund will ensure that program conditions and offerings are clearly communicated to providers and other stakeholders.
Current energy conservation program deliverers	Anticipated to be supportive of an approach that invites their involvement in program implementation. Potential concern regarding delivery of a commercial rebate for solar PV through IESO. No anticipated concerns regarding pilot projects with Indigenous communities.	Green Ontario Fund continues to manage the relationship through continued consultations/discussions.
Environmental NGOs	Anticipated to be supportive of program offerings.	Green Ontario Fund is working with a management consulting firm to develop a stakeholder engagement plan that will

		include consultation with this community.
Consumer advocates	There may be potential concern of contractor fraud.	Green Ontario Fund is not empowering contractors to conduct door-to-door sales; agency will conduct audits of program delivery
Indigenous communities	There may be concern about ensuring programs are designed to meet their unique circumstances.	Green Ontario Fund programs will ensure no impact on treaty rights and will consider unique circumstances in Indigenous communities.
Other jurisdictions	Other jurisdictions are likely to be supportive.	No action required

PARTNER	POTENTIAL POSITION/CONCERN/ISSUE	MINISTRY STRATEGY
Ministry of Energy	Has expressed the following concerns: That incentives for the deployment of solar photovoltaics will conflict with a provincial transition to net-metering, as Ontario's net metering framework already provides for an appropriate incentive for solar PV. It is designed to align compensation to generators with the value net metering provides to Ontario's electricity system, as well as to fairly allocate costs and benefits among all ratepayers. That the electricity grid is at capacity in many areas and is not able to accept new connections, and that ENERGY is aware of the potential of persisting consumer protection issues experienced in the IESO-administered micro-FIT program.	The Green Ontario Fund and MOECC have involved the IESO and MOECC in the design of the program from its concept; the design has includes measures that address the concerns raised by Energy including for example, placing a cap on the amount of solar-generated electricity that can be connected to the grid, limiting third party contracting abilities with residences so as not to allow for funding flow-through, emphasizing the use of solar PV in rural/remote areas of the province that are not connected to the grid, and work with LDCs who are best able to identify grid connectivity constraints and are familiar with consumer protection approaches
Other Ministries	MEDG - Supportive – hold interest in ensuring the Agency's programs complement the ministry's economic development and innovation initiatives	Ensure constructive discussions continue through program implementation