SUGGESTED PATH TO ADDRESSING ENERGY POVERTY IN NORTHERN SASKATCHEWAN

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## TABLE OF CONTENTS

1. Introduction .................................................................................................................................................. 3
2. Energy Poverty and Energy Justice .............................................................................................................. 3
3. Defining Energy Poverty ............................................................................................................................... 4
   3.1 Objective Measures .................................................................................................................................. 4
   3.2 Subjective Measures ............................................................................................................................... 6
4. Pathways to Suggested Energy Poverty in Northern Saskatchewan ........................................................... 7
5. Suggested Methodology ............................................................................................................................... 7
6. Policy Considerations ................................................................................................................................... 8
7. References ..................................................................................................................................................... 9
8. Addendum – Grants and Funding .................................................................................................................. 11
   8.1 Federal Programs in the Area of Clean Energy and Infrastructure ....................................................... 11
   8.2 Smart Cities Challenge .......................................................................................................................... 12
   8.3 Smart Cities Community Support Program .......................................................................................... 13
   8.4 Connect to Innovate .............................................................................................................................. 13
   8.5 Indigenous Homes Innovation Challenge .............................................................................................. 14
   8.6 The Low Carbon Economy Fund .......................................................................................................... 15
   8.7 Rural and Northern Communities Infrastructure ................................................................................... 17
1. INTRODUCTION

Households in the Atlantic Provinces and Saskatchewan experience the most fuel poverty in Canada. Households in these provinces spent over $500 more on utilities per year than the Canadian average of $2,105 in 2015, and experienced fuel poverty rates of 13% in Atlantic Provinces and 10% in Saskatchewan (National Energy Board 2017a). Depending on the definition of energy poverty and the research methodology, the estimates could be much higher: 36-39% in the Atlantic Provinces, followed by 28% in Saskatchewan (Rezaei 2017).

Detailed energy poverty data for the Northern Saskatchewan (NSK) is missing. Taking into account much higher energy prices in the neighboring Northwest Territories and in the territorial north in general (National Energy Board 2017b), as well as existing anecdotal evidence, energy insecurity in the NSK could be worse, possibly much worse, compared with the rest of the province.

Two things are preventing us from addressing the problem of energy insecurity. The first—insufficient amount of data—should be relatively easy to solve. The other is that there is no universally applicable definition of energy poverty or household energy insecurity.¹

This report will address two main topics:

1) Provide a general overview of the concept of energy poverty/insecurity.

2) Suggest a plan of preparatory work that would allow NSK communities to address energy insecurity. Such work would include formulating an operational definition and measure of household energy insecurity in the NSK, gathering data on energy insecurity in NSK communities, and making policy recommendations specifically tailored to the needs of communities in the region.

2. ENERGY POVERTY AND ENERGY JUSTICE

Whether experienced at a global level in the form of price shocks for primary energy inputs or at the individual level on a winter’s day in a poorly-insulated home in the Canadian north, energy security is unevenly distributed around the world, raising the fundamental question of energy justice – a new concept that has emerged in response to the concerns cited above (Heffron and McCauley 2017).

Although this concept remains relatively undeveloped compared with the economic efficiency criterion, operationalizing energy justice would allow us to incorporate currently neglected values into the decision matrix. For example, distributional justice recognizes that the costs and benefits of energy projects are often unequally spread even when the project may improve welfare on average; procedural justice shines a light on the importance of fairness and inclusion in decision-making which, if properly realized, would inspire trust in regulatory systems; and recognition justice takes into account special claims, such as inherent Indigenous and treaty rights (Heffron and McCauley 2014).
Energy justice is not only a desirable policy outcome, but also an analytical framework that has significant potential for the studies of energy poverty (Rezaei 2017). For instance, energy justice decision-making framework suggested by Sovacool et al. (2016) suggests to take into account the following factors in order to ensure that energy decisions lead to just outcomes: availability, affordability, due process, transparency and accountability, sustainability, intra-generational and inter-generational equity, and responsibility.

In order for energy security and justice to become a delivered policy outcome, the following factors need to be addressed:

First, patterns of settlement and relocation, the legacy of resource exploitation and successive rounds of new ventures promising much but delivering little created a huge challenge for engaging indigenous and northern communities in discussions of energy security.

Second, nowadays citizens and other stakeholders are actively seeking to be more involved in decision-making processes, and not just in terms of token consultations, but in terms of actually affecting and even controlling policy outcomes. Ideally, increasing public engagement should lead to the more collaborative state-society relations and to governments being more accountable to the people, but in practice better engagement can also increase the complexity of policy and policymaking in the sub-sector without succeeding in providing better feedback and learning. As the result, policymakers may revert back to more expert-driven and less collaborative processes (Martens, McNutt, and Rayner 2015).

3. DEFINING ENERGY POVERTY

There is no clear or generally accepted definition of household energy insecurity, and different approaches to understanding the problem may lead to widely ranging estimates of the problem’s magnitude (see Introduction above for an example) and to different policy outcomes. The task is further complicated by the fact that income poverty and energy poverty do not necessarily coincide. Research performed in rich developed countries (Rezaei 2017), and in poor developing countries (Barnes, Khandker, and Samad 2011) shows that energy poverty tends to be more common than income poverty. More families may be energy poor than income poor, in particular among lower middle class, while some of the low-income households may not be energy-poor (Rezaei 2017). In other words, household income may not be the best predictor of energy poverty, and thus we also must examine the pattern of household energy use (Barnes, Khandker, and Samad 2011).

There are two main approaches to understanding household energy insecurity (Atsalis et al. 2016, Eurostat 2013, UK Department of Energy & Climate Change 2009):

3.1 Objective Measures

The first (chronologically and in terms of how often it is used) approach is to determine energy poverty by a percentage
of a household’s income spent on energy, and by setting a threshold above which the household would be considered energy poor. The UK and Ireland have been the first to define energy poverty in this way, and they have used a 10 percent cut-off point for energy poverty (Liddell et al. 2012, WHO 2007). A similar approach is to use twice the median of households’ energy expenditure as a cut-off point, which is based on the idea of identifying households that carry a disproportionately heavy burden of paying for energy, and allows to better account for regional factors (Rezaei 2017).

This definition of energy poverty has become common in the literature and was used in energy poverty and justice research in the UK (Liddell et al. 2012, Sovacool 2015), the United States (Teller-Elsberg et al. 2016), Canada (Forbes Cairney 2009, Green et al. 2016), Greece (Atsalis et al. 2016, Santamouris et al. 2013), Bangladesh (Barnes, Khandker, and Samad 2011), and multiple other countries.

An obvious advantage of this approach is that it is very clear and makes energy poverty easy to quantify. However, it has disadvantages too. First, defining energy poverty by a percentage of household income spent on energy is somewhat arbitrary, in particular, as far as a 10 percent threshold is concerned. Originally a 10 percent cut-off was suggested because it was twice the median of households’ expenditure for energy services according to the 1988 Family Expenditure Survey for the UK households (Liddell et al. 2012).

Median energy expenditures in other countries will almost certainly be different, so a 10 percent threshold may not be suitable for all countries and all contexts.

Besides, under this approach affluent households with wasteful patterns of energy consumption could be mistakenly classified as energy poor, while some households forced to drastically reduce their energy consumption because they cannot afford the associated costs, may go unrecognized as energy poor (Atsalis et al. 2016). For instance, the conclusion made by Rezaei (2017) that “most [Canadian] households in energy poverty have incomes more than 30% above the poverty line” makes one wonder that these might be affluent households that do not have to care much about energy expenditures. Of course, the misalignment between income poverty and energy poverty could be attributed to the ownership of detached houses that leads (especially for older, less energy efficient houses) to a significant increase in energy spending compared to low-income families who can’t afford house ownership and thus rent apartments in generally more energy efficient apartment blocks (ibid).

In order to prevent incorrect classification of affluent households as energy poor, a low income cut-off point (LICO) could be used – an estimate of income threshold at which households would spend 20 percentage points of their income more than the average family on food, shelter and clothing (Statistics Canada, 2015). This would be consistent with the LHIC (Low Income/High Cost) definition suggested by Hills (2011) to the UK Government. An important feature of LICO is that it serves as a good measure of both absolute and
relative poverty. Using LICO as a filter, we can say that 7% of all Canadians are simultaneously low-income and energy poor (Rezaei 2017, 51). We can also expect that the experience of energy poverty for people below the LICO would differ significantly from the experience of energy poverty for lower-middle-class and middle-class households.

Another very strong objective indicator of energy insecurity would be whether a particular household has ever been warned of possible disconnection or actually disconnected for not paying energy bills on time, in particular, during the winter.

3.2 Subjective measures

Instead of focusing on income and expenditure, subjective approaches for measuring fuel poverty are based on asking households about their ability to maintain an adequately warm home and pay their energy bills on time, as well as other questions about the condition of the dwelling (Waddams Price, Brazier, and Wang 2012). “Adequate warmth” is usually defined as per WHO recommendations: 21 degrees for the main living area, and 18 degrees for other occupied rooms (WHO 2007, 4).

The main advantage of self-reported measures of energy poverty is that they reflect the households’ lived experiences and perceptions of the potential pressures and stresses for affording sufficient energy services (ibid). Another advantage is that this approach can point at the causes behind household energy insecurity. For example, when asked why they were unable to keep their main living room warm enough, the majority of respondents in the UK said that it was not possible to heat the room to a comfortable standard (Eurostat 2013, 152), i.e. household energy insecurity was often caused not by the lack of income, but by the buildings’ low energy efficiency.

The key disadvantage of subjective measures is that they lead to very large discrepancies between objectively measured income and energy poverty and self-reported energy poverty. For example, surveys carried out in the UK in 2007 showed that among people officially defined as fuel poor many did not self-identify as such; at the same time, of those who self-identified themselves as fuel poor, only one in four were actually fuel poor by the agreed definition. Finally, only one in seven who were actually fuel poor responded that they could not keep comfortably warm in winter (Eurostat 2013). A detailed examination of differences between subjective and measured fuel poverty is available in the 2009 UK Annual Fuel Poverty Report (UK Department of Energy & Climate Change 2009).

As far as subjective criteria for energy poverty are concerned, the EU Survey of Income and Living Conditions (EU-SILC), which is conducted annually in all EU Member States, suggests to use the following indicators of households’ energy insecurity: (i) inability to keep home adequately warm, (ii) arrears on utility bills, and (iii) leaking roofs, damp walls, floors or foundation, or rot in window frames or on the floor (Eurostat n.d.).
4. PATHWAY TO SUGGESTED ENERGY POVERTY IN NORTHERN SASKATCHEWAN

Since energy supply and use are very much dependent on local factors – economy, geography, climate, and culture – creating a uniform definition of energy poverty may or may not be possible, and is outside the scope of this paper. Instead, in order to be able to address energy poverty in the NSK, we need to find out how household energy (in)security is understood and experienced in the NSK communities. The same is true for data – we need to collect accurate, up-to-date information at the community level, and not just from local administrators and decision-makers, but also from community residents.

Our first step should be to collect household energy spending data, combined with other objective and subjective indicators such as household incomes and subjective estimates of energy insecurity. Having these data on hand, we will be able to make energy poverty issues in the NSK known through the media, and pressure provincial and federal government to address energy poverty in the region.

5. SUGGESTED METHODOLOGY

What ultimately determines how much a household spends on energy is a combination of energy prices (themselves a function of many other factors, including the types of networks of infrastructure they are secured through, as well as regulatory environments), weather, household occupancy patterns, energy needs of the inhabitants, and the efficiency of the house and its appliances in converting a unit of energy to desired services such as heating, cooling, refrigeration, etc. (Rezaei 2017).

We also need to decide whether we should include energy spent on transportation into the scope of this research. This no doubt would be a significant part of household energy spending in the NSK, in particular since Saskatchewan residents have been recently deprived of nearly all means of public transportation between communities. Literature on energy poverty usually leaves energy spent on transportation outside of the scope of household energy insecurity, and this question is more often addressed as part of general poverty and/or rural poverty reduction initiatives.

Taking into account that both objective and subjective measures of energy poverty have some significant advantages and disadvantages, we need to develop a mixed approach (possibly an index – let’s call it Northern Saskatchewan Energy Security Index) that would allow us to reliably estimate energy poverty in the NSK with due regard for local conditions and characteristics.

In order to be able to create a reliable measure of energy poverty in the Northern Saskatchewan, we need to gather a sufficient amount of data. Based on the review of existing literature and statistical manuals on the subject of energy poverty, we could take the following steps to gather data on household energy (in)security in the NSK:
• Cross-sectional data pertaining to a given time or a certain time period with variables on income, spending, poverty, and living conditions.
• Longitudinal data pertaining to individual-level changes over time, observed periodically (e.g. annually).

Housing condition, income & spending, labor, education and health information is to be collected at household/personal level. It is desirable to get as detailed information about income and spending as possible (Eurostat n.d.). These data can be collected by means of research surveys filled in at focus groups that could be organized to discuss energy security issues in the community. Such focus groups could be organized as local town hall meetings with support from local community governments.

LICO estimates, aggregated energy usage and billing information, and data about disconnections due to unpaid energy bills could be collected from local governments, the Government of Saskatchewan, utilities, and the Government of Canada.

As a first step we could start with designing surveys and information requests. Existing Eurostat’s manuals can be used as general guidelines.

6. POLICY CONSIDERATIONS

After we are done with our first evaluation of energy poverty in the Northern Saskatchewan, we will start formulating policy recommendations for dealing with the problem. At this point it is too early to predict what exactly these recommendations will be, but there are some things about energy policymaking in Saskatchewan that we should be aware of.

First, top-down decision making by politicians based on the narrow expertise of energy experts and economists has so far been the dominant approach in Saskatchewan, and has been almost entirely focused on finding the most economically efficient or cost-effective solutions to problems. And when we say “efficient” and “cost-effective,” we mean on average, and on a large scale. Interests of smaller communities, of regions removed from major hubs of economic and public activity, and of disadvantaged individuals, have been routinely overlooked in the traditional model of energy decision-making. However, today we live in a time when groups of increasingly engaged citizens demand greater input and even control over energy decisions. In this new context, the top-down model of decision-making is becoming increasingly unhelpful.

In Saskatchewan in particular, public engagement designs have been based on traditional public consultations, typically one-way top-down communication, which assumes that the public lacks knowledge to appreciate the benefits of the government-promoted policy, and therefore needs to be educated as to why the government’s solution is the best. To date, there is little evidence that Saskatchewan’s institutions drew lessons from the consultation processes; the government has never stopped governing in a top-down fashion and governance-driven engagement has yet to create a noticeable effect (Martens, McNutt, and Rayner 2015).
We may have to tackle the top-down style of decision-making in order to make sure the interests of northern communities and their residents are adequately taken into consideration when addressing energy poverty in the province.

7. REFERENCES


8. ADDENDUM – GRANTS AND FUNDING

8.1 Federal Programs in the Area of Clean Energy and Infrastructure

8.1.1 Clean Energy for Rural and Remote Communities: Capacity Building Stream

Description: This program targets knowledge and skill-building initiatives to reduce dependency on diesel in rural and remote communities. Capacity building activities related to a specific project (e.g., training a wind technician to manage a wind deployment project) are not eligible for the capacity building stream, but are eligible activities for a project proposal to NRCan’s Clean Energy for Rural and Remote Communities Deployment, Demonstration or BioHeat streams.

Proposals may cover one or more streams and may propose projects over 1 to 6 years starting in 2018/19. They include:

- Curriculum and technical training: Building skills and knowledge, eligible projects could include adding and/or updating modules to existing courses or expanding a current program in a new area.
- Network development or support: Connecting community leaders or developing community networks related to renewable energy development, reduction of reliance on diesel or energy efficiency.
- Youth and energy: Improving energy literacy, job availability and skills of youth in clean energy fields.
- Women and energy: Improving energy literacy, job availability and skills of women in clean energy fields.
- Community energy planning or resource assessments: Completing community energy visioning, developing community energy plans or resource assessments on a regional basis or for individual communities.
- Other: Working on something interesting? Proposals outside of these streams could be accepted provided they relate to the program objective of reducing reliance on diesel in rural and remote communities.

Who can apply: Community-led solutions are our priority. Partnerships between multiple communities or communities with other groups are also strongly encouraged. Communities are able to partner with a variety of other eligible recipients that are legal entities incorporated or registered in Canada including:

- For-profit and not-for-profit organizations: Utilities, industry associations, research associations, regional and community development corporations.
- Governments: Provincial, territorial, regional and municipal governments, their departments and agencies.
- Indigenous organizations: Governments, councils, for-profit and non-profit organizations.

Deadline: The deadline for preliminary proposals has passed. No further calls for proposals are planned at this time.

May, 2018: Successful preliminary proposals will be invited to submit funding eligible proposals to Phase 2. Fall, 2019:
Successful Phase 2 project funding will be available and finalized.

Source: https://www.nrcan.gc.ca/energy/science/programs-funding/20477

8.1.2 Natural Resources Canada: Clean Energy for Rural and Remote Communities: BioHeat, Demonstration & Deployment Program Streams

Description: This program is seeking proposals to reduce the reliance of rural and remote communities on diesel fuel for heat and power. The program, which plans to support a suite of diverse projects across Canada, will be evaluated against a range of criteria. Proposals will need to demonstrate local community support and outline the community benefits of the project, particularly for Indigenous communities. The project must fit into one of the following streams:

- BioHeat to reduce fossil fuel use through the installation, retrofit or investigation into the feasibility of biomass heating or combined heat and power systems for community and/or industrial applications.
- Innovative demonstrations to reduce diesel use through the validation of novel renewable energy, energy efficiency, energy storage, and smart-grid technologies and applications.
- Deployment of renewable energy technologies for electricity including hydro, wind, solar, geothermal, and bioenergy. Heat may also be produced, but the primary purpose of the project must be electricity production.

Who can apply: Rural and Remote Communities.

Deadline: The second review of proposals under the CERRC BioHeat, Demonstration & Deployment Program Streams is now closed following the submission deadline of 23:59 EST, February 26, 2019.

Source: https://www.nrcan.gc.ca/reducingdiesel

8.2 Smart Cities Challenge

Description: The Smart Cities Challenge is a pan-Canadian competition open to communities of all sizes, including municipalities, regional governments and Indigenous communities (First Nations, Métis and Inuit). The Challenge encourages communities to adopt a smart cities approach to improve the lives of their residents through innovation, data and connected technology.

- One prize of up to $50 million open to all communities, regardless of population;
- Two prizes of up to $10 million open to all communities with populations under 500,000 people; and
- One prize of up to $5 million open to all communities with populations under 30,000 people.

Who can apply: Communities of all sizes, including municipalities, regional governments and Indigenous communities.

Deadline: The Smart Cities Challenge application process closed on April 24, 2018. We received 130 eligible applications from communities across Canada. The Smart Cities Challenge Jury helped select 20 of those applications to move on to the Finalist stage of the competition. Each
Finalist will receive $250,000 to help them develop their final proposal. Visit the Impact Canada Challenge Platform to see the Finalist communities and their applications.

Source:

8.3 Smart Cities Community Support Program

Description: Through their tremendous response to Infrastructure Canada's Smart Cities Challenge, communities across Canada are focused on how innovation, data and connected technology can solve their most persistent problems. The Smart Cities Community Support Program is designed to run in parallel with the Smart Cities Challenge and seeks to amplify and sustain its impact and objectives across the country while bolstering a culture of change and continuous improvement.

The successful organization(s)' key role will be to generate and share knowledge and build broad awareness of important and complex emerging issues, including data ownership, data management, privacy and security. The successful organization(s) funded through the Program will help provide all Canadian communities, including small- and medium-sized cities, rural, remote, Indigenous, northern and isolated communities, with the information and guidance they need to improve the lives of their residents through innovation, data and connected technology.

Who can apply: To be eligible, an organization must be not-for-profit and have experience working across multiple sectors (private, public, and civil society).

An organization must also either have the following characteristics or must appropriately demonstrate in its application its plan to acquire them:

- Have established networks and expertise at the local community level and/or with Indigenous populations;
- Be capable of operating at a pan-Canadian level and in both official languages;
- Have infrastructure in place to deliver on the required outputs;
- Have a mandate that aligns with advancing smart cities approaches in Canada’s communities.

Applicants are encouraged to contact the Smart Cities Challenge team at infc.sc-vi.infc@canada.ca with questions about eligibility and other requirements prior to the deadline.

Deadline: The deadline for receipt of applications is July 20, 2018, 23:59 PDT.

Source:

8.4 Connect to Innovate

Description: The Connect to Innovate program will invest $500 million by 2021, to bring high-speed Internet to 300 rural and remote communities in Canada. In these communities, challenging geography and smaller populations present barriers to private sector investment in building, operating and maintaining infrastructure. This program supports new "backbone" infrastructure to connect institutions like
schools and hospitals with a portion of funding for upgrades and "last-mile" infrastructure to households and businesses. The program provides one-time, non-repayable contributions to eligible and approved applicants.

Costs supported include:

- direct labour and capital costs for the deployment of high-speed Internet infrastructure,
- related purchases of hardware and software or upgrades of equipment,
- leases of satellite capacity, and other costs directly related to the program's eligible activities, including rental of equipment,
- fees for associated contracted services (e.g. environmental assessment consultants or professional engineers).

The program operates on a cost-sharing basis. Typically the maximum amount of funding that an applicant could request for new backbone and new last-mile is up to 75% of the total eligible costs. For satellite-dependent and remote communities, the program contribution limit for new backbone projects could be up to 90 percent of eligible backbone costs.

The program provides up to 50 percent of eligible costs for all projects that propose backbone resiliency or capacity upgrades and partially served last-mile.

Who can apply: Eligible recipients under the program included entities or groups of entities that are incorporated in Canada, that operate Internet infrastructure, and that meet the assessment criteria. Entities or groups of entities that do not operate

Internet infrastructure were eligible provided that they had identified an entity or group of entities that would build, own and operate the network. These included private sector companies, provincial, territorial, and municipal entities, and not-for-profit organizations. Individuals and federal entities (including Crown corporations) were not eligible.

Deadline: The Connect to Innovate program is now closed for applications.

Source:
https://www.ic.gc.ca/eic/site/119.nsf/eng/home,

8.5 Indigenous Homes Innovation Challenge

Description: The Indigenous Homes Innovation Challenge is a national competition that will be launched by the Government of Canada in fall 2018. It is designed to feed into broader efforts underway to close the housing gap for Indigenous peoples. The Government of Canada will award a total of $30 million in prize money for new builds through the Indigenous Homes Innovation Challenge. Prizes will be awarded over three rounds, starting in spring 2019.

Emphasis will be placed on designs that can be replicated in other communities to help reduce overcrowding, improve building quality and address housing shortages.

From start to finish, the Challenge will be overseen by an Indigenous Steering Committee. The Indigenous Homes Innovation Challenge is being done in partnership with Infrastructure Canada, the
Department running the **Smart Cities Challenge**.

**Accelerator Period:** Up to 24 applicants will receive up to $350,000 worth of funding and support services (a period of up to 18 months).

**Project Implementation Period:** 15 to 24 projects that successfully complete the Accelerator Period will receive up to $2 million per project for construction.

The Challenge will:

- Be Indigenous-led with solutions that are community-driven
- Provide substantial support to proposals through Innovation Labs
- Measure project innovation through their impact on socioeconomic outcomes
- Be inclusive of distinctions, with First Nation, Inuit and Métis projects in both rural and urban areas
- Encourage the revitalization of traditional building styles and techniques
- Bring new partners to the table, inviting universities and colleges and the private and non-profit sectors

**Who can apply:**

- Individuals of First Nation, Inuit or Métis Nation heritage,
- Representatives of First Nation, Inuit or Métis Nation government
- Indigenous representatives of a First Nation-, Inuit- or Métis Nation-owned and operated private or not-for-profit entity

**Deadline:**

- Launch and call for ideas open: April 11, 2019

- Application Deadline: August 1, 2019
- First-stage screening: up to 24 applicants selected for Accelerator
- Accelerator Period: Beginning fall 2019
- Second-stage screening: 15 to 24 projects selected for implementation: Beginning spring 2020
- Project Implementation Period: 2020-2023

**Source:**
https://impact.canada.ca/en/challenges/indigenous-homes

### 8.6 The Low Carbon Economy Fund

**Description:** The $2 billion Low Carbon Economy Fund (LCEF) is an important part of the Pan-Canadian Framework on Clean Growth and Climate Change (the Framework). The Fund supports the Framework by leveraging investments in projects that will generate clean growth, reduce greenhouse gas emissions and help meet or exceed Canada's Paris Agreement commitments. The Fund will:

- create jobs for Canadians for years to come
- deliver clean, sustained growth
- support innovation
- reduce energy bills

The Fund is split into two parts:

- Low Carbon Economy Leadership Fund that provides $1.4 billion to provinces and territories that have adopted the Framework. Provinces and territories are each eligible to receive $30 million plus funding based on population.
Suggested Path to Addressing Energy Poverty in Northern Saskatchewan

- Low Carbon Economy Challenge. Over $500M is be available for the Low Carbon Economy Challenge. Funded projects will leverage ingenuity across the country to reduce emissions and generate clean growth in support of this Framework.

The Low Carbon Economy Challenge is part of the Low Carbon Economy Fund. It leverages Canadian ingenuity to reduce greenhouse gas emissions and generate clean growth in support of Canada’s clean growth and climate action plan, (the Pan-Canadian Framework on Clean Growth and Climate Change). The Challenge is broken into two streams:

Champions stream: The $450 million Champions stream provides funding to eligible applicants, specifically: provinces and territories, municipalities, Indigenous communities and organizations, businesses, not-for-profit organizations.

Partnerships stream: The $50 million Partnerships stream is limited to: Indigenous communities and organizations, small and medium-sized businesses, not-for-profit organizations, small municipalities.

Who can apply: How to apply for funding under Low Carbon Economy Challenge:

For each stream there is a two-step application process:

- Expression of Interest.

Applicants need to submit an initial Expression of Interest (EOI) using the online application tool. The EOI will be used to screen projects for eligibility based on the program parameters described in the Applicant Guide. Projects may also be screened out due to concerns around cost-effectiveness (for example, high costs per tonne of greenhouse gas emissions reductions achieved) and/or significant concerns about project feasibility and risk.

- Formal Proposal

Successful applicants will be invited to submit a more detailed Formal Proposal. Environment and Climate Change Canada will undertake a complete review and assessment of the Formal Proposal, including project work plan, costing, and projected greenhouse gas emissions reductions.

Deadline:

Champions stream:

- March 14, 2018: Champions stream open for expressions of interest
- May 14, 2018: Deadline for Champions expressions of interest
- Early summer 2018: Champions stream invitation to submit formal proposal
- Late summer 2018: Deadline for formal proposal
- Fall 2018 through spring 2019: Funding decisions for the Champions stream

Partnerships stream:

- December 20, 2018: Launch of Partnerships stream
- March 8, 2019: Deadline for Partnerships Applications
- Later in 2019: Final funding decisions for the Partnerships stream

Sources:


8.7 Rural and Northern Communities Infrastructure

Description: Because rural and northern communities have unique infrastructure needs that require a more targeted approach, the Government will invest $2 billion over the next decade to support a broad range of infrastructure projects, to be allocated to provinces and territories on a base plus per capita allocation basis. In addition, the $400 million Arctic Energy Fund will be delivered under this stream to support energy security in the territories.

Who can apply: N/A

Deadline: N/A

Sources:

Note: communities in the Northern and Northwest Saskatchewan are already receiving funding for various infrastructure projects.

See map here:
http://www.infrastructure.gc.ca/gmap-gcarte/index-eng.html