

April 21, 2020

Mr. Kevin Deagle
Senior Policy Advisor to the Minister of Natural Resources Canada
580 Booth Street, 21st Floor
Ottawa CA K1A 0E4

Cc: Matt Whittington, Director of Policy to the Minister of Natural Resources Canada
Cc: Trina Kennedy, Senior Program Officer, Buildings and Industry Division, Office of Energy Efficiency

Dear Mr. Deagle:

I am writing to you about the immediate and substantial opportunity to create green jobs while reducing emissions and diversifying the economy in Alberta with energy efficiency (EE) programming. Formed in 2007, the Alberta Energy Efficiency Alliance (AEEA) is a diverse member-based organization actively working to advance and maximize EE in the province of Alberta. Our [members](#) include Alberta utilities, municipalities, program designers and implementers, educational institutions, training organizations, engineering firms, trade allies, municipalities and other Alberta industry associations. We have a track record of credible public policy advocacy that has meaningfully advanced the cause of EE in Alberta.

Given the recent announcement of \$2.5 Billion to support the oil and gas sector and industry jobs, **AEEA recommends the federal government support the EE industry with the same level of commitment and funding to build green jobs and diversify the economy, specifically in EE and small renewables.** For example, \$250M/year for four years or a \$1 Billion grant to be spent by March 31, 2024 would launch and maximize programs within a matter of weeks in accordance and alignment with coronavirus distancing measures and exit strategy, and foster sustained job, economic and emissions reduction benefits.

Previous jurisdiction-wide programming in Alberta, in 2017 the last province in North America to offer EE programs, was delivered via Energy Efficiency Alberta (EEA) using funds from a legislated provincial carbon levy, now repealed. **This leaves large swaths of highly impactful and cost-effective EE initiatives and programming across all sectors that are not active in Alberta.** The appetite for energy efficiency in Alberta is immense (214,000 participants) and unsupported. Results from a subset of 2018-19 programs:

- **Economic Growth / Diversify the Economy:** For every dollar invested in EE over the last two years, \$3.20 is being returned to Albertans. **EE initiatives and programs have generated over \$850M in economic growth**, leveraging private investment and putting Albertans to work^[1].
- **Put Albertans Back to Work Fast:** With sustained funding that supports programming for additional sectors (e.g. indigenous and agricultural), EE could bring up to **5,900 new local implementation jobs** and **\$2.3 Billion in economic growth annually in Alberta through 2030**^[2].
- **Save Money and Boost Competitiveness for Businesses and Individuals:** EE is the cheapest source of energy in Alberta at 2.4 cents/kWh, compared to 5.5 cents/kWh for natural gas. **In 2018-19, programs delivered 5.9 M tonnes of emissions reductions at -\$84/tCO₂e in savings.**^[3]

Idle industry capacity in Alberta is ready to get to work on these programs within a matter of weeks and can absorb additional technical staff from other industries. Opportunities include shovel-ready projects that missed out on funding when EEA, Alberta Agriculture and Indigenous programs closed.

^[1] EEA 2018-2019 Annual Report, independently evaluated. <https://efficiencyalberta.ca/annual-report>

^[2] Efficiency Canada & Dunsky Energy Consulting– Less is More. <https://www.energycanada.org/less-is-more/>

^[3] EEA 2018-2019 Annual Report, independently evaluated. <https://efficiencyalberta.ca/annual-report>



Current Status of Alberta's EE programs

Details of active / inactive programs by sector are listed in **Appendix A**. Generally, programs that are still active in Alberta fall into three categories:

1. Remaining EEA programs focused on financing and capacity-building, such as:
 - a. Financing: [Clean Energy Improvement Program](#) (PACE), [Green Loan Guarantee Program](#) (Commercial and Industrial retrofit and clean energy project financing), and alignment with the Alberta Indigenous Opportunities Corporation (project financing).
 - b. Capacity-Building (technical expertise and best-in-class products): [Efficiency professionals network](#) (e-Pro) for contractor screening, certification and capability-building, and [Strategic Energy Management](#) cohorts in C&I sectors to foster energy mgmt. skillsets direct in commercial, institutional and industrial sectors.
 - c. Centralized back-end delivery of services to improve consistency and reduce costs: Municipal Climate Change Action Centre and Alberta Indigenous Opportunities Corp.
2. A Limited Number and Scope of Municipal Programs. Currently the [City of Edmonton](#) leads the charge in this, with financial support through rebates and incentives focused on buildings. Medicine Hat and their [Hat Smart](#) programming has had to dramatically scale back.
3. Alberta Urban Municipalities programs funded by a large grant received under previous government, to be spent by March 2023. See the [Municipal Climate Change Action Centre](#).

Potential Alberta Government Economic Stimulus for Energy Efficiency

While the Alberta government has indicated that the summer months are to be focused on economic recovery, there has been little information on areas of focus aside from an announcement to move \$1B in infrastructure spending from fiscal 2021-22 forward to 2020-21. Any indication of stimulus focused on EE has been based on areas of support already established as above, and not incentive-based.

Energy Efficiency Funding Programs That Could Address Gaps in Alberta

Based on the expertise and perspective of our members, the AEEA recommends **a \$205-\$250 Million / year investment over a minimum of three years under the oversight of Alberta's existing EE program administrator, EEA, and covering all major sectors – residential, C&I, large industry / methane emissions reduction, small renewables, indigenous and agriculture**. We estimate this amount of funding would create, as a starting point, more than 3,500 jobs quickly, resulting in more than 3.5M t CO₂e reductions, \$600M in energy savings for consumers and \$600M in annual GDP. Alberta has one of Canada's most skilled workforces who have already demonstrated the transition to technical roles in EE. With existing infrastructure in place via EEA along with leading financing programs already enabled, **Alberta represents a quick-win and high-impact opportunity to getting Albertans back to work now while delivering emissions reductions and economic diversification**.

We have provided specific program recommendations with estimated costs and impacts in **Appendix B**.

We appreciate your consideration regarding this input and look forward to the opportunity to discuss these ideas further. This represents a substantial, easy to implement opportunity for quick-win economic stimulus focused on EE and emissions reductions. The EE sector in Alberta is primed and ready.

Sincerely,

Amy Roesler
Executive Director

Appendix A - Current status of Alberta's Energy Efficiency Programs

Details of active / inactive programs by sector are listed below. Note that all Energy Efficiency Alberta program details, including those not active, are still available on their website.

a) Residential Sector

Scope	Program 'Owner'	Program Type	Program Name	Active / Not Active	Specific AEEA Member Comments
Alberta-wide	Energy Efficiency Alberta	PACE	Clean Energy Improvement Plan	Active	
Alberta-wide	Energy Efficiency Alberta	Energy Audits	Home Energy Plan	Not Active	To minimize expense to homeowners, maximize measures that can be done through direct rebates instead of requiring energy audits, incl. HVAC, windows, insulation, etc with pre- and post- done by <i>accredited / qualified</i> contractors.
Alberta-wide	Energy Efficiency Alberta	Contractor Rebates	Home Improvement Rebates	Not Active	Include windows.
Alberta-wide	Energy Efficiency Alberta	Retail Rebates	Online Rebates	Not Active	
Alberta-wide	Energy Efficiency Alberta	Low/Fixed Income	Affordable Housing	Not Active	Alberta was second-last, ahead of Saskatchewan, to offer income-based efficiency programming. The impact and benefits of this type of programming are discussed in detail in Appendix 1 – KEG Witness Testimony HoC
Alberta-wide	Energy Efficiency Alberta	Low/Fixed Income	Residential No-Charge	Not Active	
Edmonton	City of Edmonton	Awareness and Education	<ul style="list-style-type: none"> • Home Energy Toolkit • Change Homes for Climate Guide • Change Habits for Climate Guide 	Active	



b) Commercial / Institutional Sector

Scope	Program 'Owner'	Program Type	Program Name	Active / Not Active	Specific AEEA Member Comments
Alberta-wide	Energy Efficiency Alberta	Industry Training	Training Incentives	Not Active ("complete for the year")	
Alberta-wide	Energy Efficiency Alberta	Industry Capacity-Building	Efficiency Professional (e-Pro) Network	Active	
Alberta-wide	Energy Efficiency Alberta	SMB Prescriptive Rebates	Business Energy Savings	Not Active	
Alberta-wide	Energy Efficiency Alberta	Audit Prescriptive Rebates +	Non-Profit Energy Efficiency Transition	Not Active	A substantial number of these organizations / facilities have been audited. Rebates for implementation measures would leverage these and assist these organizations with costs.
Alberta-wide	Energy Efficiency Alberta	Custom retrofit, C&I	Custom Energy Solutions	Not Active	Projects already identified under consideration for provincial stimulus. Combined C&I incentive rate was insufficient for strong uptake in commercial / institutional sectors. Would benefit from a top-up or separate incentive structure.
Alberta-wide	Energy Efficiency Alberta	Methane Emissions Reduction	Methane Emissions Reduction	Active (winding down)	
Alberta-wide	Energy Efficiency Alberta	Energy Management	Strategic Energy Management	Active (winding down)	
Alberta-wide	Energy Efficiency Alberta	Energy Management	Onsite Energy Manager	Active (winding down)	
Urban Municipalities (excl. Calgary, Edmonton, Red Deer)	Municipal Climate Change Action Centre	Energy Management	Municipal Energy Manager	Active (provincial grant through end of 2022)	
Urban Municipalities (excl. Calgary,	Municipal Climate Change	Custom Retrofit,	Recreation Energy Conservation	Active (provincial	



Edmonton, Red Deer)	Action Centre	Municipal buildings		grant through end of 2022)	
Edmonton	City of Edmonton	Benchmarking	Building Energy Benchmarking	Active	
Edmonton	City of Edmonton	Audits	Energy Audit Rebate	Active	
Edmonton	City of Edmonton	Rebates	Commercial Energy Efficiency Rebate	Active	

c) Small/Mid-Industrial

Scope	Program 'Owner'	Program Type	Program Name	Active / Not Active	Specific AEEA Member Comments
Alberta-wide	Energy Efficiency Alberta	Industry Training	Training Incentives	Not Active ("complete for the year")	CEM, CMVP training had incentives of up to 50% of the cost for eligible trainees.
Alberta-wide	Energy Efficiency Alberta	Industry Capacity-Building	Efficiency Professional (e-Pro) Network	Active	
Alberta-wide	Energy Efficiency Alberta	Custom retrofit, C&I	Custom Energy Solutions	Not Active	Projects already identified under consideration for provincial stimulus. Had very strong uptake in Industrial sector.
Alberta-wide	Energy Efficiency Alberta	Simplified custom	Methane Emissions Reduction	Not Active	Projects already identified under consideration for provincial stimulus. Had very strong uptake in junior gas producer sector.
Alberta-wide	Energy Efficiency Alberta	Energy Management	Strategic Energy Management	Active	6 cohorts around the province were filled and currently running, however there are no incentive programs for them to move to deeper retrofits.
Alberta-wide	Energy Efficiency Alberta	Energy Management	Onsite Energy Manager	Active (winding down)	24 energy managers were hired around the province, but salary funding dropped in year 2, and no new funding / new energy managers announced.

d) Large Industrial

Scope	Program 'Owner'	Program Type	Program Name	Active / Not Active	AEEA Comments
Alberta-wide	Energy Efficiency Alberta and NR Can	Strategic Energy Management	Strategic Energy Management for Large Final Emitters	Active	2 cohorts are currently running, through ~ March 2022. NR Can objective is to foster ISO 50001-readiness.

e) Indigenous Sector

Scope	Program 'Owner'	Program Type	Program Name	Active / Not Active	AEEA Comments
Alberta-wide	Alberta Ministry of Indigenous Relations	Custom Retrofits	Alberta Indigenous Energy Efficiency (Retrofit) Program Alberta Clean Energy Program	Not Active	<p>Program had been in place under previous conservative governments, was expanded in 2018, and then eliminated under current provincial government.</p> <p>Based on how indigenous communities capture their funding and manage their operations, we've seen in Alberta that they typically will not move towards EE without government subsidies. Capacity to put in applications is low. Almost all buildings (80-90%) were already audited in ACEP.</p> <p>Additional program considerations are discussed in Appendix 1 – KEG Witness Testimony HoC</p>

f) Agricultural Sector

Scope	Program 'Owner'	Program Type	Program Name	Active / Not Active	AEEA Comments
Alberta-wide	Alberta Ministry of Agriculture and Forestry	Custom retrofits	Farm Energy and Agri-Processing Canadian Agriculture Partnership Program (?)	Not Active Not Active (?)	<p>Programs had been in place under previous provincial conservative governments, was expanded in 2018, and then eliminated under current provincial government.</p>

Appendix C – Energy Efficiency Funding Program Ideas

Relaunch Recent Residential Offers with a Focus on Speed, Impact and Sustainability

Alberta households are facing challenges to pay their bills. These programs help homeowners and affordable Housing Management Bodies reduce energy costs and waste while improving comfort. These programs very quickly and directly stimulate local economic activity with local jobs and purchases, while reducing utility bills and maintaining property values over time.

Residential programs to retool and relaunch include:

- **Home Energy Plan:** Home energy assessments may be conducted virtually if required and foster a continued pipeline of deeper home retrofits, cost savings and related jobs for HVAC, window, insulation and other contractors.
- **Home Improvement Rebates (via Contractors) and Online Rebates:** These programs directly stimulate consumer spending on energy efficient products at Canadian retailers while leading to immediate and measurable utility bill savings.
- **Low Income / Affordable Housing:** Assessments again may be conducted virtually if required, while providing free home energy audits and energy efficiency upgrades such as free LED bulbs, home insulation, and smart thermostats to reduce costs for this segment of the Alberta population.

Impacts:

- Estimate of jobs created: 360+
- GDP Impact / Economic Activity: \$84M+
- Energy Savings over Lifetime: \$28M+
- Lifetime GHG Reductions: 175,000 t CO₂e
- Cost Estimate: \$10M - \$15M/year

Speed of Implementation: **As early as May 2020** if leveraging existing Alberta program delivery infrastructure (EEA).

Market demand: there were over 5,200 EnerGuide Energy Efficiency Evaluations completed in Alberta due to a previous residential incentive program. Over 200,000 households and 27,000 affordable housing units have participated in programs that identify opportunities for energy efficient upgrades in the home.

Relaunch Solar / Small Renewable Offers

Alberta has some of the best solar resources in Canada. This program will partner with solar installers to offer financial incentives on solar projects that comply with Alberta's microgeneration regulation, and with efficiency financing offering that investment with no up-front capital. Expertise and systems currently in place allow **a quick start-up of this program (May 2020)**. Over 250 solar installation businesses actively participated in previous programs; this program would allow them to immediately expand job opportunities for electricians and other related trades. The program can be introduced and executed immediately, considering health and safety guidelines and requirements.

Impacts:

- Estimate of jobs created: 1,200+



- GDP Impact / Economic Activity: \$70M+
- Energy Savings over Lifetime: \$194M+
- Lifetime GHG Reductions: 1,100,000 t CO₂e
- Cost Estimate: \$35-\$45M/year

Speed of Implementation: Announcement could occur nearly immediately if leveraging existing Alberta program delivery infrastructure (EEA).

Market demand: There are 133 solar projects for commercial, institutional and industrial facilities and 590 residential projects that will likely proceed with an incentive available. These combined projects represent a potential economic investment of \$58M. The Canadian Solar Industries Association has also identified solar microgeneration as a quick-launch opportunity to generate jobs and put 'boots on the roof' quickly.

Relaunch and Expand Commercial, Institutional and Industrial ("C&I") Offers for Business Adaptation, Productivity and Competitiveness

Alberta businesses are also facing challenges to pay their bills, while also experiencing unprecedented competitive and productivity pressures. These programs help businesses reduce operating expenses while boosting productivity and competitiveness, also enabling potential retention of employees they might not be able to keep. **These programs provide skilled technical workers with the opportunity to get back to work in a technical field (e.g. electrical and mechanical engineers) in a new sector.** This was evidenced in the recent C&I prescriptive and custom programs delivered in Alberta. Again, this newly skilled workforce is ready to dive back in to deliver services directly to businesses and work on program teams delivering these programs.

Commercial, Institutional and Industrial programs that would provide most benefit in Alberta include:

- **Training Incentives:** To continue Alberta's skills transition and support successful delivery of other programs, consider subsidizing educational programs to increase the capacity of energy efficiency trades, practitioners and professionals in the construction, renovation and operation of commercial and industrial facilities.
- **Prescriptive Program with Direct Install Component:** To provide small and medium businesses with quick and flexible access to equipment replacements that can reduce their costs while improving their business offering, provide 50% rebates, with a track to 80% rebates + direct install, for eligible commercial, institutional and industrial facilities. This program can be delivered via rebates right at the distributor, and/or via contractors. Over 1,000 Alberta contractors are already qualified to support this type of C&I programming, and ready to work.
- **Custom Retrofit Program:** Offering incentives for larger custom projects, including rebates for engineering studies when required, provides C&I facilities with support to implement larger, deeper retrofits that assist with larger cost reduction and productivity goals. Such programs can be supported and delivered while social distancing is in place, and, in Alberta, can leverage existing green loan and other available financing options to assist companies in moving their businesses forward. The past iteration of this program, large final emitters were ineligible, had predominantly industrial participation and delivered significant and long-lasting energy and GHG emission reductions in short order. Along with a backlog of projects that were not ready to apply in time prior to programs closing, there are over 60 facilities in Alberta with energy managers developing a pool of additional, facility-specific projects to mobilize this program quickly.



- Large Industry Competitiveness Pilot and Program: Offering incentives for large industry to implement equipment retrofits, providing facilities under the [Technology Innovation and Emissions Reduction](#) (TIER) Regulation with support to implement the largest retrofits, with newly proven technologies, that assist with the largest opportunities for emissions reduction, cost reduction and productivity goals. While Emissions Reduction Alberta provides the funding and infrastructure to test and demonstrate such technologies, there is a gap in broad deployment.

Impacts:

- Estimate of jobs created: 1,800+
- GDP Impact / Economic Activity: \$450M+
- Energy Savings over Lifetime: \$370M+
- Lifetime GHG Reductions: 2,100,000 t CO2e+
- Cost Estimate: \$60-\$70M/year

Speed of Implementation: Announcement could occur nearly immediately if leveraging existing Alberta program delivery infrastructure (EEA). Program design could be completed in April or May 2020, **and open to applications in May 2020**

Market demand: 1,125 Alberta contractors are already qualified to support energy efficiency programming in the province. Over 60 Alberta organizations, representing hundreds of non-TIER and TIER sites across the province have strategic energy management plans for their facilities. This provides a pool of committed businesses with identified projects positioned to take advantage of this program quickly

Relaunch Oil and Gas (Methane Emissions Reduction) Offers

Junior oil and gas producers struggling to keep their businesses afloat while adapting to methane regulations, along with service providers gearing up to support producers in complying with regulations, benefit from incentives supporting leak detection and repair and capital projects focused on reducing methane emissions in their facilities and pipes. This program would assist producers in adapting to regulations while delivering huge emissions reductions earlier than they would have been given the timeline of regulations and enforcement.

Impacts:

- Estimate of jobs created: 200+
- Lifetime GHG Reductions: 2,100,000 t CO2e+
- Cost Estimate: \$10-15M/year

Speed of Implementation: Announcement could occur nearly immediately if leveraging existing Alberta program delivery infrastructure (EEA). Program design could be completed in April or May 2020, **and open to applications in May 2020**

Relaunch Indigenous Offers with a Holistic Approach

Provide a fund to specifically support Indigenous communities by delivering both short term relief while also laying the groundwork to address long term housing needs, energy poverty, and substandard living situations that result in public health challenges in Indigenous communities. Immediate relief that is



aligned with and in service of a longer-term plan will support Nations to improve community capacity, energy burdens, employment, capital planning and housing upgrades/retrofits. Solutions should include development of capital plans, execution of robust housing assessments, upgrades and retrofits that focus on reducing individual home energy consumption and bills, education on energy related behavior change, and community employment and capacity building.

Indigenous communities are most vulnerable to COVID-19, in part as a result of poor housing infrastructure, overcrowding, and energy poverty (when a disproportionate amount of a household's income is spent on energy forcing families to choose to 'heat or eat'). Solutions to address these issues must be designed with a long-term view while also addressing immediate issues at the same time. Housing assessments related to delivering upgrades will also enable the development of a capital plan so that Nations are empowered with good budgetary information that allows them to leverage other public or private funding sources on an ongoing basis.

Following the precedent of communities like [Little Red River Cree Nation](#) East of High Level, Alberta, partnering with [Community Power](#):

- Funding to support a long-term energy and housing plan
- Short term upgrades are optimized to deliver greatest reduction in consumption on a per home basis to maximize impact and relief for each household
- Hire qualified community members to do the work as a first priority and as necessary provide opportunities for job training and shadowing. Ensure an overall approach to support job creation and to build community capacity.
 - Estimate of jobs created: 75 Indigenous construction, community engagement, and energy assessment jobs
 - Cost Estimate: \$75-\$125M / year for three years.
 - Indigenous Services Canada reports 12,325 homes in Alberta First Nations based on Census 2016 data. Previous similar projects of this nature range from between \$25K-\$75K per home depending on conditions at individual Nations.
 - Total long-term budget is estimated between \$300M and \$900M which is recommended to be phased over multiple years. An initial fund of between \$50-\$75M could provide significant immediate relief for Indigenous communities and serve as seed funding to initiate positive action on the ground and enable communities to garner additional funding support from other levels of government and the private sector.
 - Speed of Implementation: Fall 2020 if leveraging existing Alberta program delivery infrastructure.

Relaunch Agricultural Offers

Provide tailored programming for the agricultural sector to identify and implement energy efficiency, small renewable and carbon capture projects such as recent program offerings to increase the efficiency of grain dryers, increase uptake of on-farm solar PV, convert high-pressure irrigation systems into low-pressure systems, and custom retrofit offerings for larger agri-processors to improve energy efficiency. That were available only through 2018.

- Estimate of jobs created: 50
- Cost Estimate: \$15-\$20M/ year for three years.
- Speed of Implementation: Fall 2020 if leveraging existing Alberta program delivery infrastructure.



Support Capacity-Building Through Existing Non-Profits

Revenue sources are typically centred on industry engagement and capacity-building, including organizing and holding large events of 200-300 attendees. Non-profits are not in a financial position to take the risk of accessing a small business loan, even partially forgivable. The Alberta Energy Efficiency Alliance's main revenue-generating activity is an annual EE Summit that was to be held on April 30th. It is currently rescheduled to November 2nd, however this has largely eliminated ~\$100k in profit from our 2020 fiscal year. Our non-profit society and others like the Canada Green Building Council, Quality Urban Energy Systems of Tomorrow (QUEST) and the Association of Energy Engineers who have Alberta chapters that have been active in energy efficiency are experiencing lay-offs and lack of industry support for a minimum of May through August. Providing access to a grant of up to \$75,000/year to support, build capacity and convene members would put these organizations on strong footing to assist with economic transition in Alberta.

- Estimate of jobs created: 6
- Network of members and companies receiving support: ~250 per organization
- Cost Estimate: \$450k/year for three years (up to \$75k per organization)
- Speed of Implementation: May 2020 to engage with industry in developing new avenues and tools for support.