

**Environment and Natural Resources Trust Fund
2015 Request for Proposals (RFP)**

Project Title:

ENRTF ID: 096-E

Ending Minnesota Greenhouse Gas Emissions from Fossil Fuels

Category: E. Air Quality, Climate Change, and Renewable Energy

Total Project Budget: \$ 1,500,000

Proposed Project Time Period for the Funding Requested: 2 years, July 2015 - June 2017

Summary:

Ending Minnesota's contribution to greenhouse gases from burning fossil fuels. An analytical study, grounded in Minnesotans' priorities, is a necessary tool for action by a statewide network of institutional leaders.

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Sponsoring Organization: Legislative Energy Commission

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Location

Region: Statewide

County Name: Statewide

City / Township:

Alternate Text for Visual:

Now: imported, high emissions, non-renewable. Future: local, low emissions, renewable

_____ Funding Priorities	_____ Multiple Benefits	_____ Outcomes	_____ Knowledge Base
_____ Extent of Impact	_____ Innovation	_____ Scientific/Tech Basis	_____ Urgency
_____ Capacity Readiness	_____ Leverage	_____ TOTAL	



Environment and Natural Resources Trust Fund (ENRTF)

2015 Main Proposal

Project Title: Ending Minnesota Greenhouse Gas Emissions from Fossil Fuels

PROJECT TITLE: Ending Minnesota Greenhouse Gas Emissions from Fossil Fuels

I. PROJECT STATEMENT

The Legislative Energy Commission (LEC) will lead a study of how to eliminate Minnesota's greenhouse gas emissions from burning fossil fuels, a priority articulated by the 2013 Legislature. The study is a tool toward action, not an end in itself. It will be shaped and implemented by a network of institutional leaders. The study will be conducted by a team with in-depth knowledge of energy systems and proven success in similar endeavors, to be chosen by RFP.

Minnesota's energy use has tremendous impacts on our air and water quality, and the economic health of our communities. Today, only about one-eighth of Minnesota's energy mix is renewable, such as wind, solar, ground-source and bioenergy. The rest is primarily fossil fuels (coal, oil, gas, etc.) burned to generate electricity, heat and cool buildings, run industry, and transport people and goods. Because of our fossil fuel dependence, greenhouse gas emissions continue to rise. And, since Minnesota has no fossil fuel resources of its own, the state spends \$13 billion a year to import fuels – a staggering amount two-thirds the size of the state budget.

The state's energy policy, however, is set in a piecemeal fashion, characterized by yearly legislative battles, too little long-term planning, and policy silos that make it difficult to integrate policy on electricity with heating, transportation, and Minnesota's agricultural and forest resources.

For this reason, the Legislature (M.S. 3.8852) asked the LEC for guidance in an Energy Future Framework that:

- Ends Minnesota's contribution to greenhouse gases from burning fossil fuels.
- Establishes goals and strategies to reach the state's renewable energy standards and prepare for the steps beyond reaching those standards.
- Considers costs, job and economic development impacts, and opportunities created by new technologies for efficiency, storage, transmission, and renewable generation.
- Is developed in consultation with utilities, environmental NGOs, labor and industry, technical and scientific experts, and other stakeholders.

The Energy Future Framework will answer the question: How far and how fast can Minnesota transition to a clean energy system while maintaining affordability and reliability? It will provide long-term pathways, policies for the medium-term, and immediate "no regrets" actions.

II. PROJECT ACTIVITIES AND OUTCOMES

Activity 1: Conduct an analytically rigorous study with broadly accepted assumptions **Budget: \$1,500,000**

- Cover all energy using sectors, including buildings, industry, agriculture, transportation and electricity.
- Consider commercially available technology, but also evaluate the effects that emerging technologies could have without pinning the state's energy strategy to the unknown.
- Analyze system linkages across energy sectors to understand potential cross-benefits or consequences of particular strategies. For example, an arid Southwest town improved water efficiency, but the program worked so well that it enabled developers to expand new construction, which intensified stress on water supplies. Connecting these types of feedback loops is an essential part of the study.
- Model and test portfolio scenarios for what Minnesota's energy mix could look like in the future, ranging from an energy mix similar today's to a significantly transformed system.
- Develop pathways to end Minnesota greenhouse gas emissions from fossil fuels.
- Review and iterate analysis and pathways in conjunction with stakeholder and public engagement (see below).



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Outcome	Completion Date
1. Detailed <u>report</u> covering all stages of the strategy process, results from quantitative and qualitative analyses, and next steps	June 2017
2. Stand-alone <u>executive summary</u>	June 2017
3. <u>Appendices</u> with details on methodology, models, assumptions, and sensitivity analysis	June 2017
4. <u>Core presentation</u> with key visuals and results, appropriate for a wide range of non-technical audiences	June 2017
5. <u>Publicly accessible data and/or models</u> when feasible	June 2017

III. PROJECT STRATEGY

A. Project Team/Partners

The Legislative Energy Commission is the project lead and will receive ENRTF funds to contract with a data analysis and strategy firm via RFP. The LEC will contribute to the Framework, but its budget (\$250,000/year) is not sufficient for the scope of work. LEC co-chairs (2014): Representative Melissa Hortman, Senator John Marty.

Leadership team partners include the Department of Commerce, Department of Transportation, Environmental Quality Board, Xcel Energy, Fresh Energy, Minnesota Chamber of Commerce, and Cummins Power Generation (a large energy user with Minnesota manufacturing facilities, and a producer of engines, generators, and advanced energy products). Great Plains Institute is an advisor in project development. Partners with expertise in other sectors continue to join the leadership team as of this proposal’s submission.

Rocky Mountain Institute, an internationally renowned nonprofit that advances clean and efficient energy, conducted an Energy Future Scoping Study (bit.ly/OV86ZE) and provided support through its eLab Accelerator, a four-day workshop to support and advance the country’s most innovative and promising energy policy work.

B. Project Impact and Long-Term Strategy

To ensure that this study leads to action in government and the private sector, the project proposed here will be built upon three related activities:

- A. Scoping the study, including literature review, stakeholder engagement, and recommendations.
- B. Developing a multi-interest network of Minnesota leaders to implement the Framework. This network will shape the bounds of the study and be an ongoing catalyst for implementing recommendations over time. Such a network of institutions driving action and holding each other accountable is a successful approach in the state of Vermont. This activity is being led by the partners listed in section III.A.
- C. Engaging the public to educate citizens about Minnesota’s energy options and to understand the goals and priorities of Minnesotans. Building a renewable energy system involves prioritizing different interests and values. What kind of society do we want to be? Can we live with the economic, health and environmental consequences of change – or inaction? These are by nature questions that can’t be solved by the experts and require citizen input.

Transforming Minnesota’s energy systems will be an ongoing effort after the Framework is developed. Funding will come primarily from participating institutions. We do not anticipate returning to the LCCMR for support.

C. Timeline Requirements

The analytical study will take two years (July 2015 – June 2017).

2015 Detailed Project Budget

Project Title: Energy Future Framework

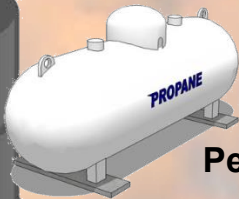
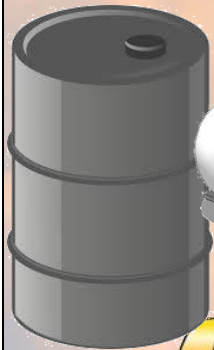
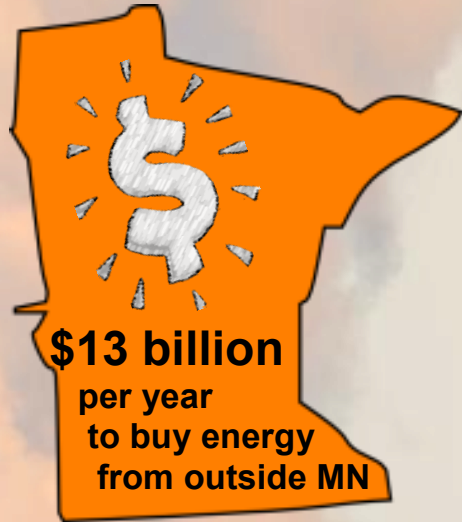
IV. TOTAL ENRTF REQUEST BUDGET 2 years

BUDGET ITEM	AMOUNT
Contracts:	
Energy data analysis and strategy firm: Analytical study. TBD by RFP process	\$ 1,500,000
TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =	\$ 1,500,000

V. OTHER FUNDS

SOURCE OF FUNDS	AMOUNT	Status
Other Non-State \$ To Be Applied To Project During Project Period:	\$ 400,000	Pending
Philanthropic grant for network organization and public engagement		
Network leadership members contributions for network organization and public engagement	\$ 100,000	Pending
Other State \$ To Be Applied To Project During Project Period:	\$ 70,000	Secured
Legislative Energy Commission funds: Project manager salary (25% salary/benefits), member per diem, related staff expenses		
In-kind Services To Be Applied To Project During Project Period:	N/A	
Funding History:	\$156,000	
\$100,000 - Dept. of Commerce for Energy Future Study Scoping (2013)		
\$32,000 - Legislative Energy Commission for project management (Oct. 2013-Jun.2015)		
\$24,000 - Rocky Mountain Institute for eLab Accelerator, in-kind (2014)		
Remaining \$ From Current ENRTF Appropriation:	N/A	

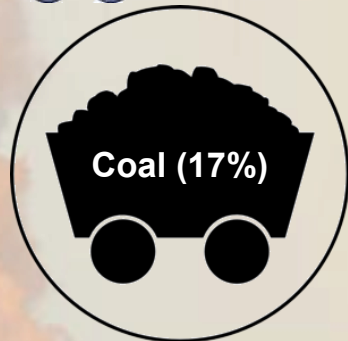
NOW:
Imported, High Emissions, Non-Renewable



Petroleum
(32%)



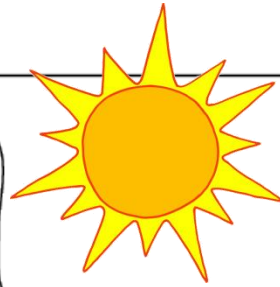
Natural Gas
(23%)



Coal (17%)



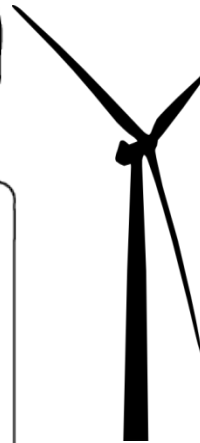
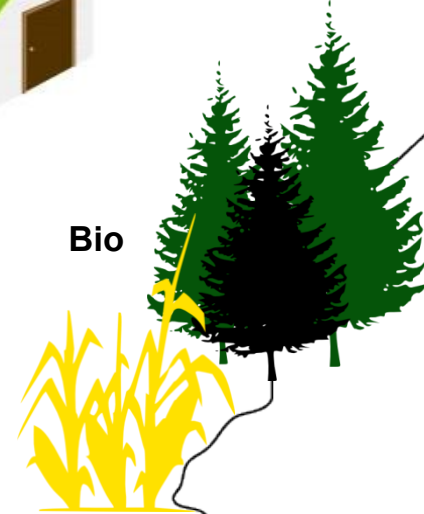
FUTURE:
Local, Low Emissions, Renewable



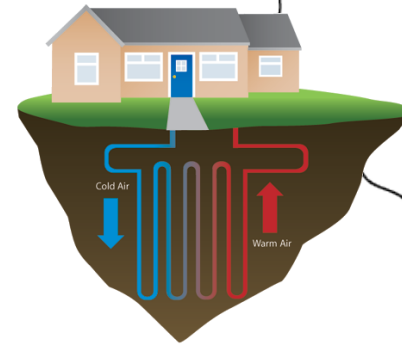
Solar



Bio



Wind



Ground-source

#6: Project Manager Qualifications & Organization Description

Organization Description

The Legislative Energy Commission is a bi-cameral, bi-partisan body that evaluates the energy policies of the state, assessing the impact on the future of the environment and the economy. The commission also monitors the state's progress in achieving goals to develop renewable sources of electric energy, evaluates progress in reducing greenhouse gas emissions, reviews and recommends proposed energy legislation, and takes public testimony on energy issues. (Minnesota Statutes 3.8851)

The LEC includes legislators in leadership positions in the House and Senate energy, transportation, agriculture, and environment and natural resources committees as well as the NextGen Energy Board. It is currently chaired by Representative Melissa Hortman and Senator John Marty.

The LEC is funded by an assessment on Minnesota utilities, up to \$250,000 per year.

Project Manager Qualifications

Annie Levenson-Falk, Executive Director of the Legislative Energy Commission, will be the project manager. Ms. Levenson-Falk has training in policy analysis, solution development and implementation from the University of Minnesota's Humphrey School and the Minnesota Active Citizenship Initiative. Prior to joining the LEC in 2013, she was the chief policy staff at the Citizens League, where she led a multi-year project to develop policy to optimize the efficiency of the electrical energy system. Ms. Levenson-Falk is experienced in project and contract management, policy analysis and network development.