

AWARD  
WINNING!



## Carbon Dioxide and Climate Change

*Practical and Environmentally Sound Discussion of Some of Today's Hot Topics*

Featuring the Plains CO<sub>2</sub> Reduction (PCOR) Partnership Atlas and Award-Winning DVDs

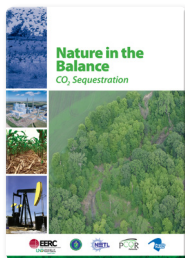
### PCOR Partnership Atlas





# Exclusive Documentary Series

This series of DVDs on carbon dioxide (CO<sub>2</sub>) sequestration is a production of Prairie Public Broadcasting, Fargo, North Dakota, in collaboration with the PCOR Partnership led by the University of North Dakota's Energy & Environmental Research Center.



***Nature in the Balance: CO<sub>2</sub> Sequestration* [DVD]; Steadman, E.N.; Dambach, B., Executive Producers; Energy & Environmental Research Center: Grand Forks, ND, 2005, 30 min, free upon request.**

This 30-minute documentary is full of information on anthropogenic CO<sub>2</sub>, a greenhouse gas caused by human activity, explaining what it is, where it comes from, and what we can do to control it.

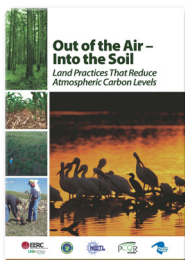
**North Dakota Library Association Notable Document Award, 2008 Runner-Up  
Telly Award, 2006 Bronze Winner**



***Reducing Our Carbon Footprint: The Role of Markets* [DVD]; Steadman, E.N.; Dambach, B., Executive Producers; Energy & Environmental Research Center: Grand Forks, ND, 2008, 30 min, free upon request.**

This 30-minute documentary introduces carbon credits as important tools in providing incentives and financing for projects that will help lead to the low-carbon world of tomorrow.

**Award of Excellence, 15th Annual Communicator Awards, 2009 Winner**



***Out of the Air - Into the Soil: Land Practices That Reduce Atmospheric Carbon Levels* [DVD]; Steadman, E.N.; Dambach, B., Executive Producers; Energy & Environmental Research Center: Grand Forks, ND, 2008, 30 min, free upon request.**

Terrestrial CO<sub>2</sub> sequestration is a way of reducing our carbon footprint using the natural ability of plants to absorb CO<sub>2</sub> from the atmosphere and store the carbon in plant matter and soils. This 30-minute documentary highlights projects in North and South America that are using effective landscape management to help reduce our carbon footprint.

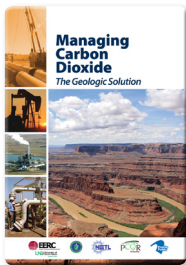
**Award of Excellence, 15th Annual Communicator Awards, 2009 Winner  
Aurora Award, 2009 Gold Winner**

## Plains CO<sub>2</sub> Reduction (PCOR) Partnership Atlas

***Plains CO<sub>2</sub> Reduction (PCOR) Partnership Atlas, 4th Edition, Revised; Prepared for the U.S. Department of Energy National Energy Technology Laboratory and the PCOR Partnership; Energy & Environmental Research Center: Grand Forks, ND, 2013, 124 p., color, free upon request.***

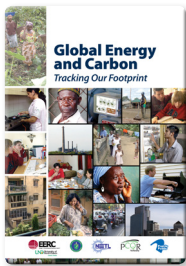
Global climate change is one of the most pressing environmental concerns of this century. Enormous economic, technological, and lifestyle changes may be needed to significantly reduce the greenhouse gas emissions thought to be caused by human activity. One important option to address these emissions is carbon sequestration—the long-term storage of carbon dioxide. Terrestrial sequestration uses the natural ability of plants to absorb CO<sub>2</sub> from the atmosphere and store it in plant matter and soils. Geologic sequestration is the practice of putting CO<sub>2</sub> from human sources into long-term storage in geologic layers deep underground. The PCOR Partnership region, stretching from Missouri to British Columbia, is rich in opportunities for geologic and terrestrial CO<sub>2</sub> sequestration. This atlas provides an introduction to the concept of global climate change and profiles major CO<sub>2</sub> sources. It highlights opportunities for terrestrial and geologic storage options in the PCOR Partnership region: 1.4 million square miles of central North America.





**Managing Carbon Dioxide: The Geologic Solution [DVD]; Steadman, E.N.; Dambach, B., Executive Producers; Energy & Environmental Research Center: Grand Forks, ND, 2009, 30 min, free upon request.**

This 30-minute documentary tells the story of geologic CO<sub>2</sub> sequestration from the discovery of natural underground CO<sub>2</sub> deposits to the development of a safe, practical method for long-term storage deep underground of CO<sub>2</sub> from industrial sources.



**Global Energy and Carbon: Tracking Our Footprint [DVD]; Steadman, E.N.; Dambach, B., Executive Producers; Energy & Environmental Research Center: Grand Forks, ND, 2010, 35 min, free upon request.**

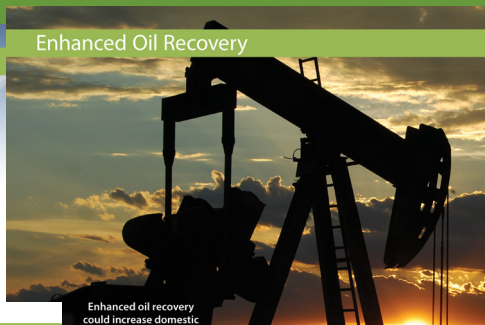
This 35-minute documentary shows how energy is used by everyday families at three levels of energy use—industrialized, emerging, and developing. Following families in the United States, India, and Cameroon to demonstrate how this energy use is reflected in carbon emissions, the documentary then considers the question, “What actions can we take now to find reasonable solutions to carbon management while having adequate access to energy now and in the future?”

**Aurora Award, 2012 Platinum Best of Show Winner**

View the DVDs and Atlas online at [www.undeerc.org/pcor](http://www.undeerc.org/pcor) or

**Request your copies of the DVDs and Atlas today!**

Contact us at [jensrud@undeerc.org](mailto:jensrud@undeerc.org).



### Challenges to CCS Deployment

**Large scale deployment of CCS technology depends upon three becoming accepted: trusted, economical, and conventional technologies. In order for this to happen, several challenges are being addressed:**

- National CO<sub>2</sub> Policy:** Currently, there is no federal policy to reduce GHG emissions. Without a policy, governments at all levels are uncertain about how to deal with climate change and carbon emissions. Should they take no action or implement carbon taxes, cap-and-trade programs, mortgage incentives, or other policies?
- Economics:** For companies to deploy CCS technologies, they will need cost incentives such as carbon credits, tax preferences, and storage. Companies will need to understand the future regulatory environment well enough to see a competitive CCS deployment as being profitable over the long term. This requires the involvement and acceptance of all stakeholders.
- Regulations:** CCS is a new type of activity and legal frameworks for it are evolving. However, regulatory uncertainty remains a barrier to CCS deployment. Although early CCS projects are in process under existing laws, there is limited experience at the federal and state levels in updating the regulatory framework for CCS. Changing efforts will clarify the regulatory framework.

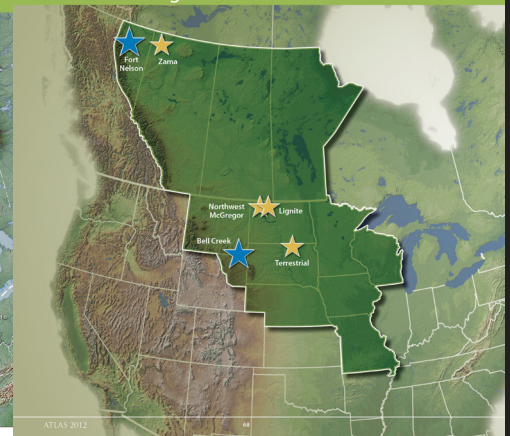
### PCOR Partnership Partners



### PCOR Partnership Region



### Demonstrating CCS





# About the Awards

## Aurora Award, 2009 Gold Winner and 2012 Platinum Best of Show Winner

The Aurora Award recognizes excellence in the international film and video industries specifically targeted at nonnational commercials, regional or special interest entertainment, and corporate-sponsored film and video. Entries are judged based on creativity, message effectiveness, and technical excellence. The PCOR Partnership documentary "Out of the Air – Into the Soil" was a 2009 Gold Winner, and "Global Energy and Carbon: Tracking Our Footprint" was a 2012 Platinum Best of Show Winner.

## Award of Excellence, 15th Annual Communicator Awards, 2009 Winners

The Communicator Awards, sanctioned and judged by the International Academy of the Visual Arts, honor creative excellence for communications professionals. The Award of Excellence, the highest honor, is awarded to those with outstanding communication ability, which puts them among the best in the field. In 2009, the PCOR Partnership received awards in this category for "Reducing Our Carbon Footprint" and "Out of the Air – Into the Soil."

## NDLA Notable Document Award, 2008 Runner-Up

The Notable Document Award from the North Dakota Library Association (NDLA), Government Documents Roundtable, recognizes outstanding documents created by North Dakota state agencies. The Notable Document Award was first awarded in 1984. The PCOR Partnership documentary "Nature in the Balance: CO<sub>2</sub> Sequestration" was a 2008 runner-up.

## Telly Award, 2006 Bronze Winner

The Telly Awards honor the very best film and video productions; groundbreaking online video content; and outstanding local, regional, and cable TV commercials and programs. Entries are evaluated to recognize distinction in creative work and do not compete against each other. The PCOR Partnership documentary "Nature in the Balance: CO<sub>2</sub> Sequestration" received a Bronze Telly Award in 2006 for excellence in the category of nonbroadcast film or video production.

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## About the PCOR Partnership

The PCOR Partnership is a group of public and private stakeholders working together to better understand the technical and economic feasibility of storing CO<sub>2</sub> emissions from stationary sources in the central interior of North America. The PCOR Partnership is led by the Energy & Environmental Research Center at the University of North Dakota and is one of seven regional partnerships under the U.S. Department of Energy National Energy Technology Laboratory Regional Carbon Sequestration Partnership Program. For more information on the PCOR Partnership and other products available, go to [www.undeerc.org/PCOR](http://www.undeerc.org/PCOR).