

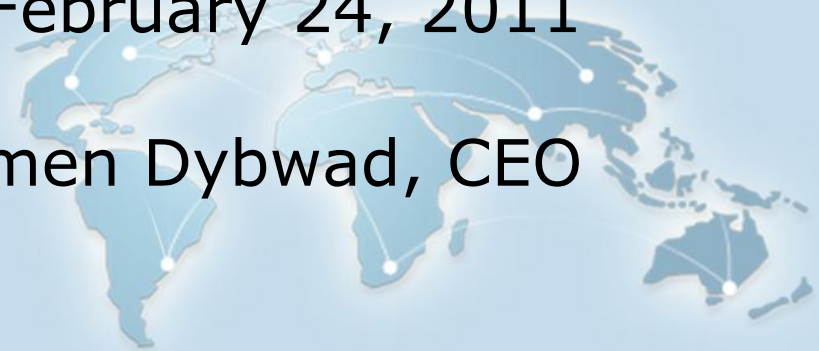


International Performance Assessment Centre  
For Geologic Storage of CO2

USEA Washington, D.C.

Thursday, February 24, 2011

Carmen Dybwad, CEO





## PURPOSE OF PRESENTATION

- Why IPAC-CO2 was created
- What is Carbon Capture and Storage
  - What IPAC-CO2 does

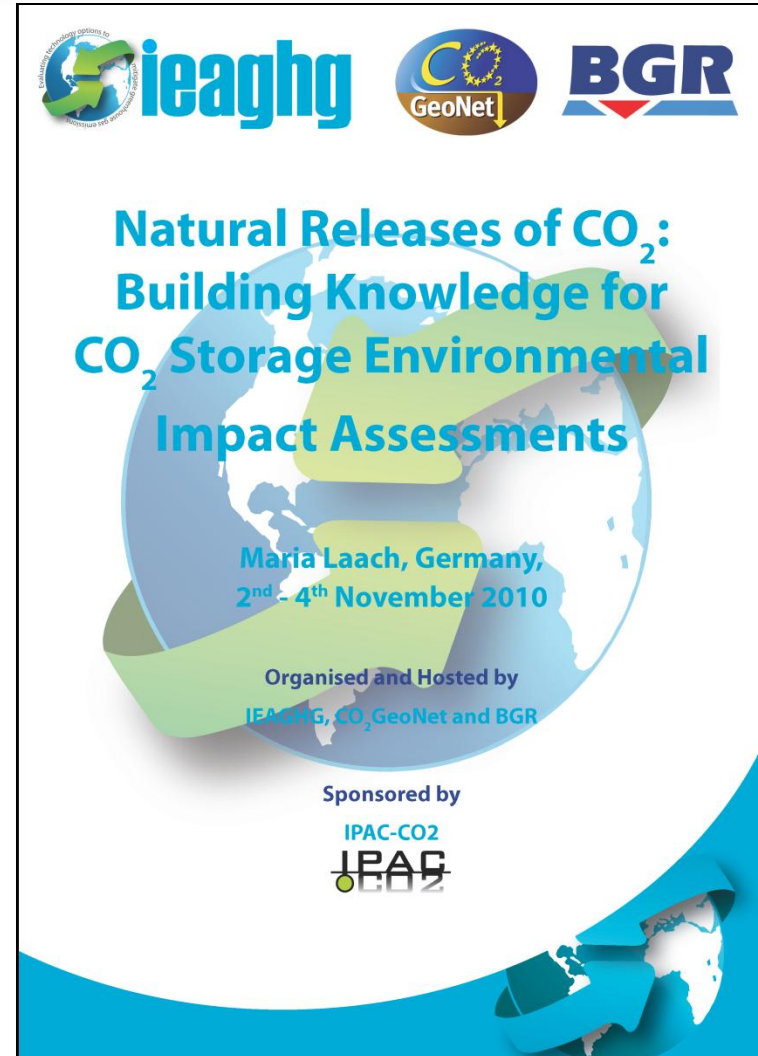


## WHO WE ARE

- IPAC-CO2 Research Inc. is a not-for-profit organization focusing on the geologic storage of CO<sub>2</sub>
  - Risk assessment
  - Risk management
  - Risk mitigation techniques
  - Risk communication

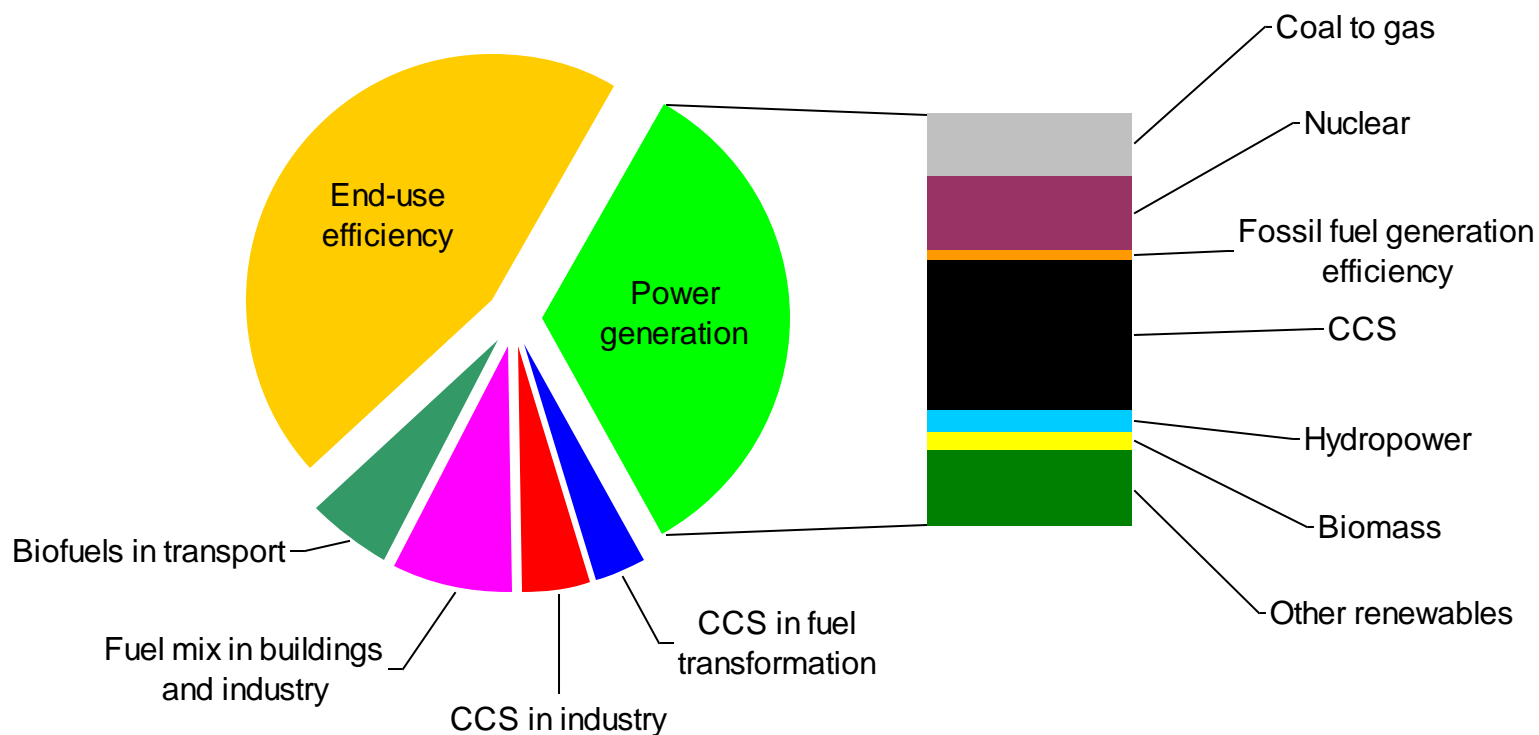
- Independent, objective information
- Best practices
- Advice and assessments

- IPAC-CO2 Research Inc.
  - Clients:
    - Governments
    - Industry
    - Stakeholder groups
    - International organizations

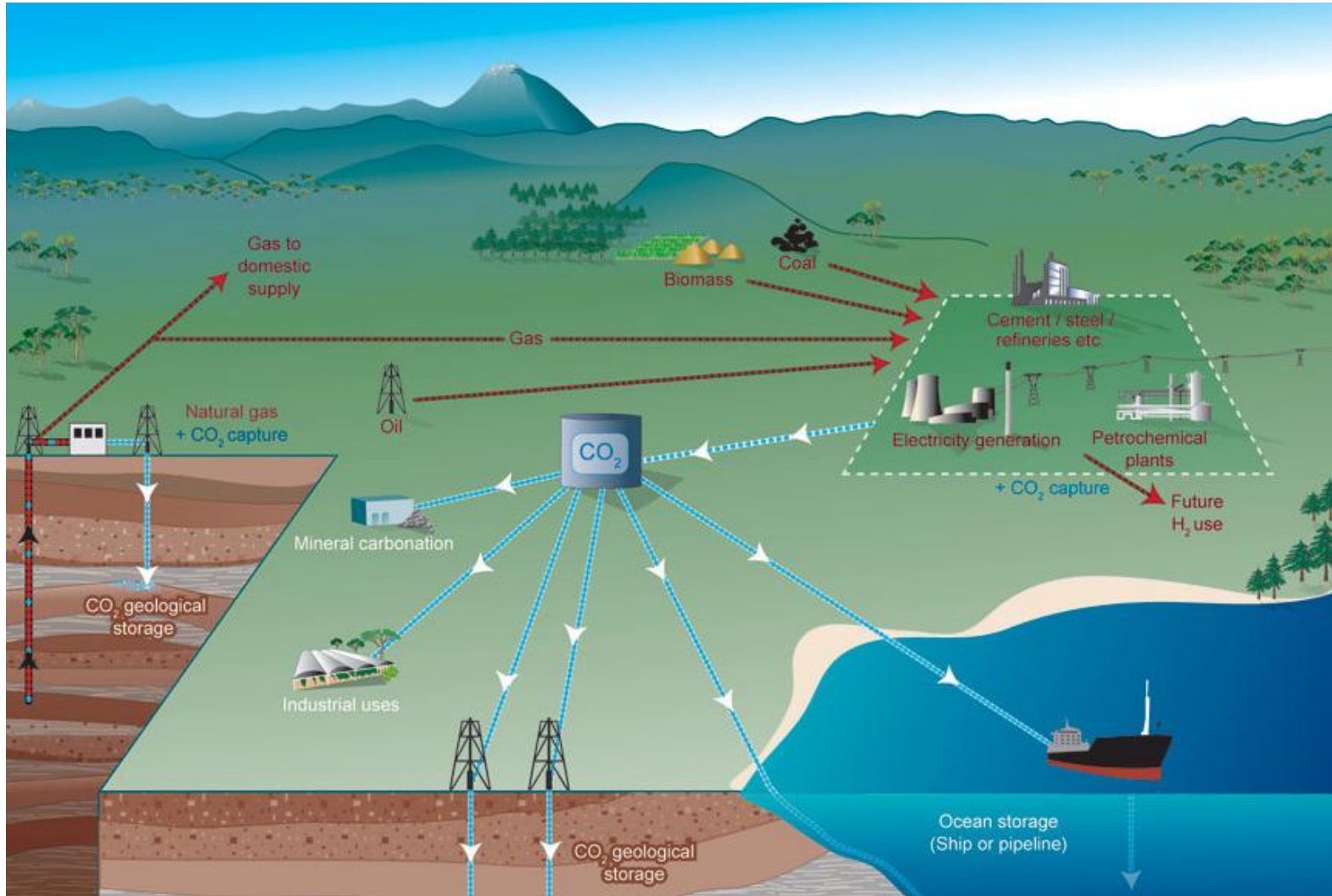
The poster features a central globe with a green ribbon-like shape overlaid on it. At the top, there are three logos: a small globe logo with text, the 'ieaghg' logo in blue, and the 'GeoNet' logo in a blue circle. To the right is the 'BGR' logo in blue. The main title is in large blue font: 'Natural Releases of CO<sub>2</sub>: Building Knowledge for CO<sub>2</sub> Storage Environmental Impact Assessments'. Below the title, the location and dates are listed: 'Maria Laach, Germany, 2<sup>nd</sup> - 4<sup>th</sup> November 2010'. Further down, it says 'Organised and Hosted by IEAGHG, CO<sub>2</sub>GeoNet and BGR'. At the bottom, it says 'Sponsored by IPAC-CO2' followed by the 'IPAC CO2' logo. The bottom right corner of the poster shows a partial view of the globe with a green ribbon.

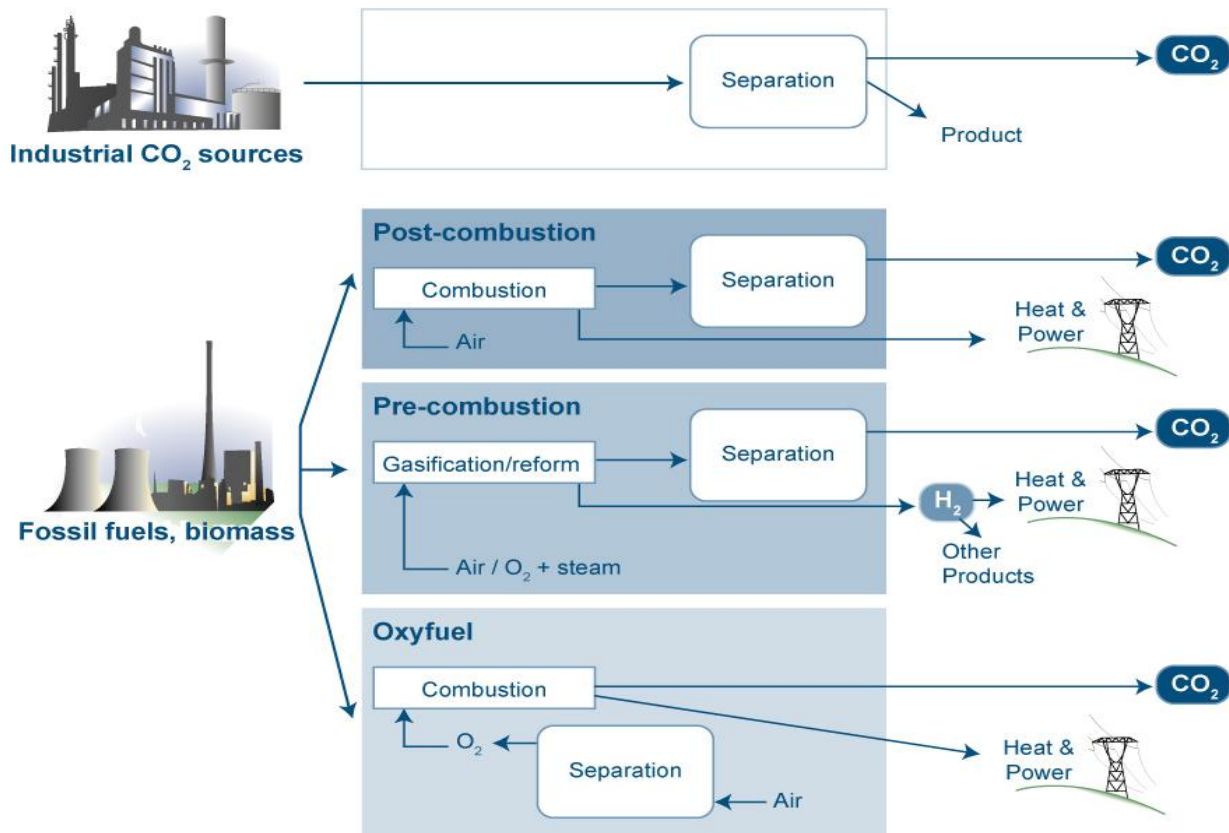
- To *promote* the *advancement* and *exchange* of geologic storage knowledge through international understanding and co-operation.
- To *increase* public, industry, government and regulator *confidence* in the *safety* and *permanence* of geologic storage of carbon dioxide.
- To *participate* in the *practical application* of commercial scale geologic storage of CO<sub>2</sub>.

## ***CCS accounts for 20% of emissions reduction***

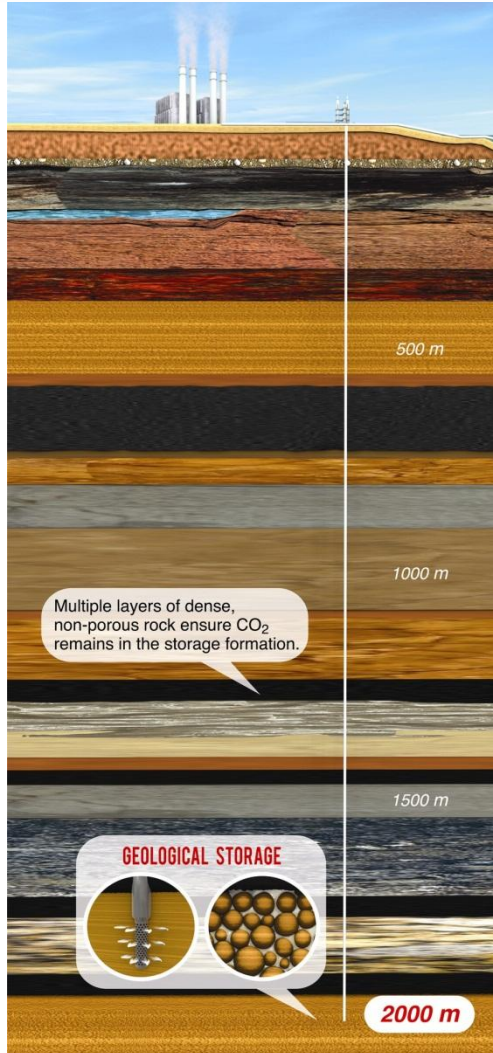


# What is geologic storage of CO<sub>2</sub>?





# UNDERGROUND STORAGE



Artwork courtesy of  
University of Regina

# Modular Development



Photo Courtesy HTC Pureenergy



## OUR ROLE

- Site locations are:
  - Safe
  - Secure

- Development of North America's first standard for the geologic storage of CO<sub>2</sub>
  - IPAC-CO2
  - Canadian Standards Association
  - CSA America
- Technical Committee received the draft standard last fall
- Balanced scorecard



## ACHIEVING OUR GOALS

- The new standard will be submitted to the Standards Council of Canada and ANSI for recognition:
  - The world's first formally recognized CCS standard
  - Consideration by the International Organization for Standardization



## WHY THIS IS IMPORTANT

- The success of CCS (and ultimately the on-going success of Canada's fossil fuel sector) will depend on the widespread confidence in, and acceptance of, geologic storage of carbon dioxide as a safe and permanent GHG mitigation tool.
- Any future GHG credit or cap-and-trade programs will require confirmation/verification of the capacity for storage and as well as the long-term permanence of its geologic storage.
- The Standards will provide a basis for both.



## WHAT THE STANDARDS COVER

- Site Screening and Selection
- Site Development
- Site Closure
- Risk Assessment
- Monitoring and Verification



## THE COMMUNITY OF PRACTICE

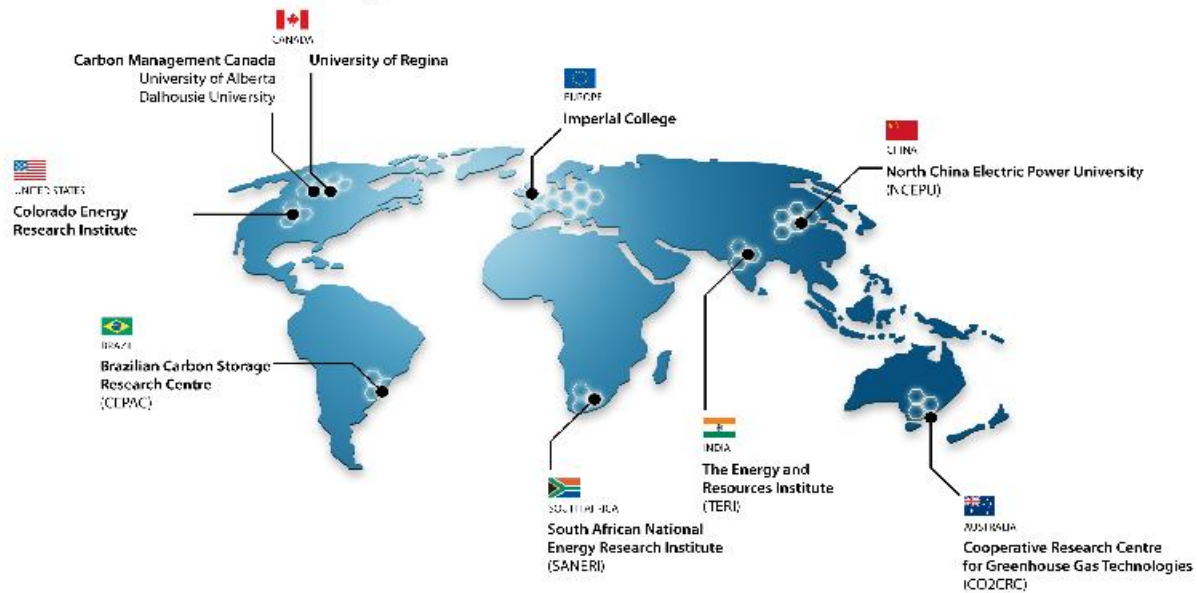
- IPAC-CO2 has developed and supports an international Community of Practice network
- Nationally, we have established a strong, collaborative working relationship with Carbon Management Canada



## THE COMMUNITY OF PRACTICE

- Agreements with eight Regional Centres:
  - Colorado Energy Research Institute (USA)
  - Brazilian Carbon Storage Research Centre (Brazil)
  - South African National Energy Research Institute (South Africa)
  - The Energy and Resources Institute (TERI-India)
  - The Cooperative Research Centre for Greenhouse Gas Technologies (CO2CRC-Australia)
  - The North China Electric Power University (China)
  - Imperial College (England)
  - Carbon Management Canada (CMC)

**IPAC-CO2**  
An Expanding Global Network



- The sharing of knowledge:
  - Facilitate the ongoing development of best practices
  - Creation of confidence in the safety and permanence of geologic storage
  - Demonstration of effectiveness as a GHG mitigation tool

- Support the continuing success of the fossil fuel energy:
  - Reducing carbon footprints
  - Minimizing environmental impacts
  - Providing a foundation for industry's social license to operate

- Benchmarking:
  - Testing of analytical tools using data sets from existing reservoirs
  - Assembling panel of experts
  - Next step is acquisition of both data sets and relevant software
- Risk Registry:
  - Exploring the possibility of multidisciplinary approach
  - Integration of scientific, technical, statutory and regulatory information?

- Weyburn Performance Assessment
  - Fact-based, independent study
  - Not finger pointing
  - What happened at the Kerr family farm
  - International team of scientists



## Today's Presentation

- Answered these questions:
  - Why IPAC-CO2 was created?
  - What is Carbon Capture and Storage?
  - What IPAC-CO2 does?

More Questions?



## FOR ADDITIONAL INFORMATION

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