

## Geological resources for reaching carbon neutrality

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Zoom

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Reaching carbon neutrality is a challenging task because of a number of hurdles. First, we need sources of renewable energy that do not fluctuate during day and night and along seasons. Second, the fluctuating nature of most renewable energies forces to have an enormous availability of energy storage to guarantee energy supply when production is lower than the demand. Third, there are industrial processes that emit CO<sub>2</sub> even if renewable energies are used to supply electricity, such as cement, steel and ethanol production. In this presentation, we will learn the large potential of geological resources for overcoming these challenges through geothermal energy production, geologic carbon storage and subsurface energy storage. Nonetheless, these technologies are not exempt from issues of public concern. Indeed, induced seismicity has become widespread as a result of fluid injection in the subsurface for energy related activities. If felt, induced seismicity has a negative effect on public perception and may damage adjacent infrastructure. Felt induced earthquakes have led to the cancellation of geo-energy projects. The goal of my research group is to acquire the capacity of forecasting injection-induced earthquakes to successfully deploy geo-energies and thus, reach carbon neutrality to mitigate climate change and reduce related health issues.

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This seminar will be broadcasted live in:

