



A Revolution in Northern France

100 % RE with 60% efficiency
Building a new collective destiny

Berlin ECEEE, September
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A highly urbanized region:

Lille, Lens, Dunkerque, Calais, Valenciennes, Maubeuge, Arras, Douai... Density 300 in/km²

Heavy industries in decline

- Former Nr1 in Coal
- Largest EU steel mill
- Largest EU nuclear plant
- Concentration of automobile industries + glass + aluminum + paper



Figure 33 : Zones ayant connu plus de 35 dépassement des valeurs journalières en PM₁₀ en Europe en 2008 (Commission européenne)



2011, *The Third Industrial Revolution: How Lateral Power Is Transforming Energy, the Economy, and the World*,

[Palgrave Macmillan](#), [ISBN 978-0-230-11521-7](#)



1st industrial revolution
19th century
Coal / Railways



2nd Industrial Revolution
20th century
Oil / Large networks

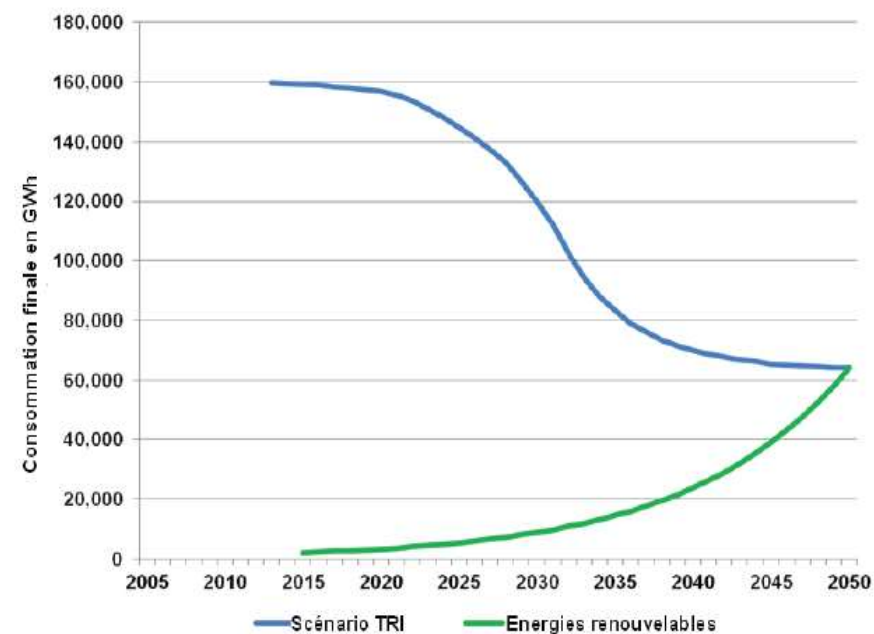


3rd Industrial Revolution
21st Century
Renewable Energy /
Information networks

What we retain from Jeremy Rifkin's ideas :

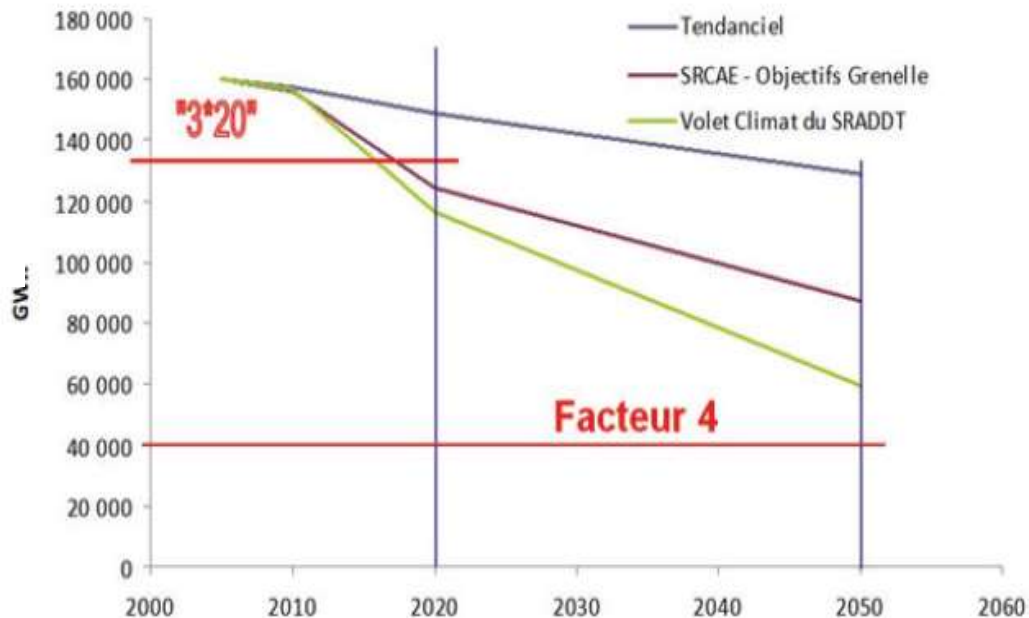
- The end of centralized generation and a radical decentralization of energy sources
- A large scale exchange of energy pertaining to a "internet of energy"
- A bottom up approach to development

High Ambitions



The Region has been the first entity in France, to commit a high level of Renewable Energy

Figure 51. Scénarios énergétiques en Nord-Pas de Calais











Source: SRADDT 2012

Third Industrial Revolution

5 pillars, 3 axes

»TRI« or
«REV3» :

		 Energy efficiency	 Collaborative economy	 Circular economy
1 Distributed renewable energies				
2 Energy production by buildings				
3 Energy storage				
4 Energy internet				
5 Mobility of people and goods				



CITOYENS
DU NORD PAS-DE-CALAIS

LA RÉVOLUTION

NE SE FERA PAS
SANS
VOUS

CREDIT
COOPERATIF
C'est un choix



- Already 8,5 M€ collected with the public as savings.
- Various institutions committed 50 M€ for equity investments in the early phases.

The logo for 'reU3' is displayed in a large, white, stylized font against a dark, semi-transparent background. The background of the entire slide features a futuristic industrial landscape with green fields, solar panels, wind turbines, and modern buildings under a blue sky with clouds. A large, semi-transparent blue shape with a dotted pattern is positioned behind the logo.

**La 3ème
Révolution Industrielle
en Hauts-de-France**



Région
Hauts-de-France
Nord Pas de Calais - Picardie

A decentralized process : Several hundred firms have joined the initiative. Local committees organized with the Chambers of Commerce and the Region



Discussion : Perspectives and limits of the «REV3» process

(Minus)

- A process still in its infancy : indicators, evaluations still in development
- Should we retain J. Rifkin in the loop?
- Difficult political situation for energy

(Plus)

- New projects and initiatives
- The Paris Accord is a booster



Thank you

Antoine Bonduelle

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