

**Fair Low/Zero Carbon & 100% RE Strategies,
South & North Countries, Villages,
including Women Initiatives**
UNFCCC COP21 Side Event, Paris, France
December 3, 2015



UNFCCC SIDE EVENT
December 3rd, 2015

PARIS2015
UN CLIMATE CHANGE CONFERENCE
COP21-CMP11

INFORSE



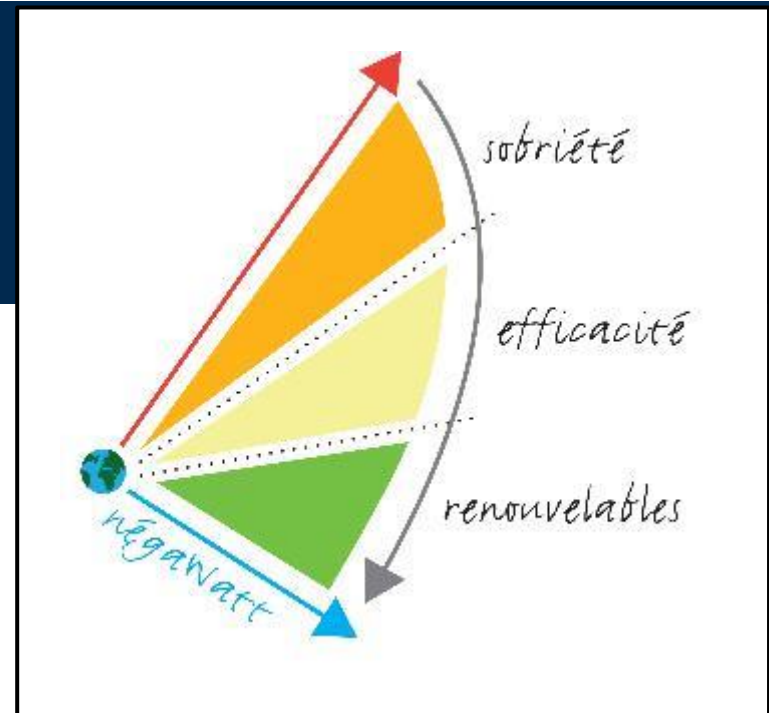
nw
négaWatt



Energy policy: the négaWatt scenario, France

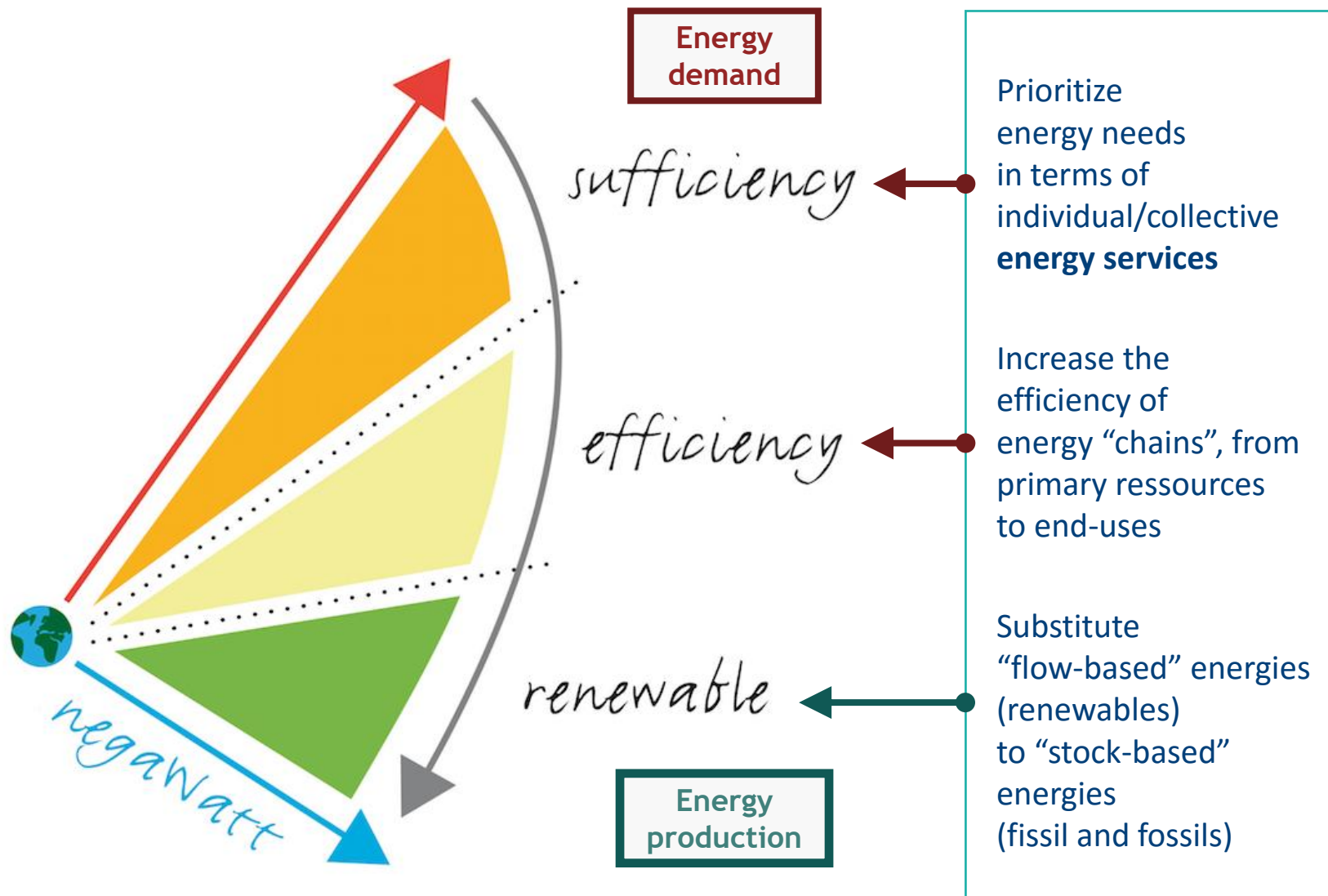
Yves Marignac
négaWatt, France

COP 21 – Paris Le Bourget
3 December 2015



Presentations are available at the UNFCCC web site and at INFORSE:
www.inforse.org/europe/conf15_COP21.htm

The négaWatt approach to energy



French situation – Scenario objectives

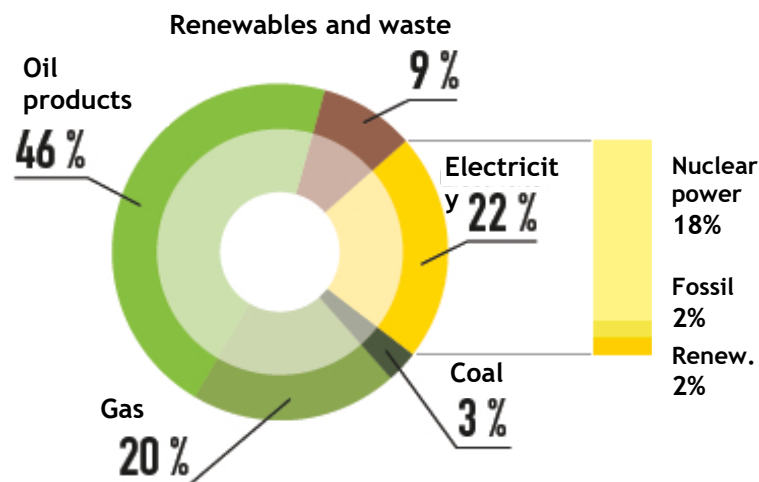
French energy situation

- Dependency on fossil fuels remains high (70%)
- GHG emissions considered 4-fold higher than sustainable
- Strong dependency on nuclear power for electricity (80%)
- Low development of renewables

Fundamentals of the négaWatt scenario

- Provide a sustainable pathway towards low-carbon, 100% renewables
- Build a long term strategy (2050) to guide decisions in the short term
- Use existing solutions instead of betting on hypothetical breakthroughs
- Develop a physical model of uses and resources to discuss the economics

France's final energy consumption, share by energy source (2011)



Source: bilan de l'énergie, 2011, SOeS

Implementation on energy demand

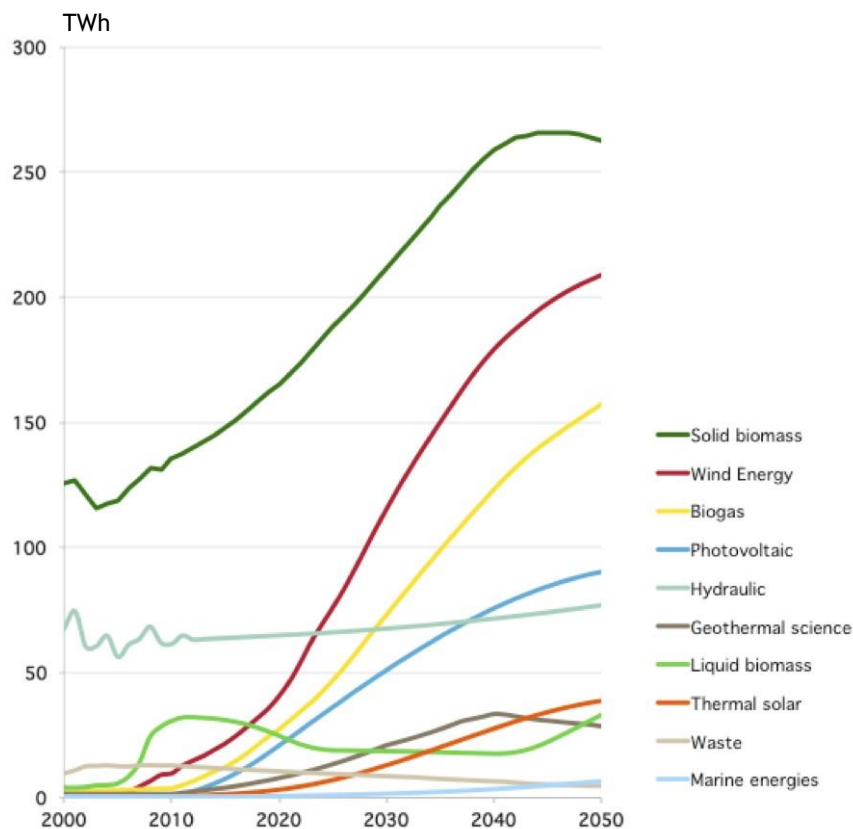
Buildings	<p>Moderating surfaces/person or activity</p> <p>Deep and large thermal retrofitting</p> <p>Constructing positive energy new buildings</p>	
Specific electricity	<p>Implementation on every uses</p> <p>of best equipments and behaviours of today</p>	<i>Roughly 2-fold division of final energy consumption in each sector</i>
Transports	<p>Urban planning to reduce need for distances</p> <p>Modal transfer (road-rail, individual-collective)</p> <p>Efficiency of vehicles and adaptation to uses</p>	
Industry	<p>Extended recycling of materials</p> <p>Reduced need of goods</p> <p>Efficiency in processes</p>	
Agriculture	<p>Same approach on land-use & use of biomass</p> <p>Change of food-habits (meat, etc.)</p>	<i>Allows for sustainable use of bioenergy</i>

Sufficiency + efficiency are keys for substituting rather than adding renewables to existing energy productions

Implementation on energy resources

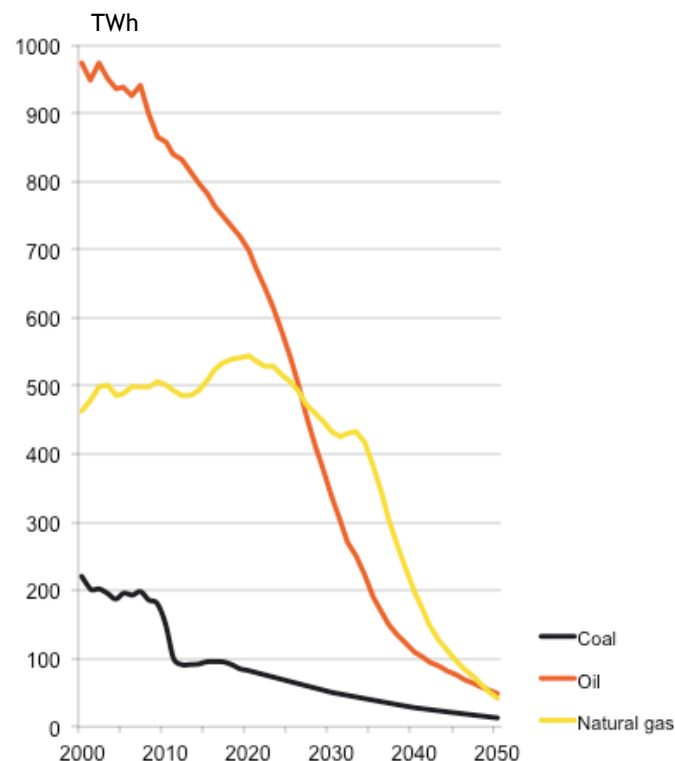
Strong development of renewables

- Biomass (mostly wood and biogas)
- Electric renewables (mostly wind and PV)

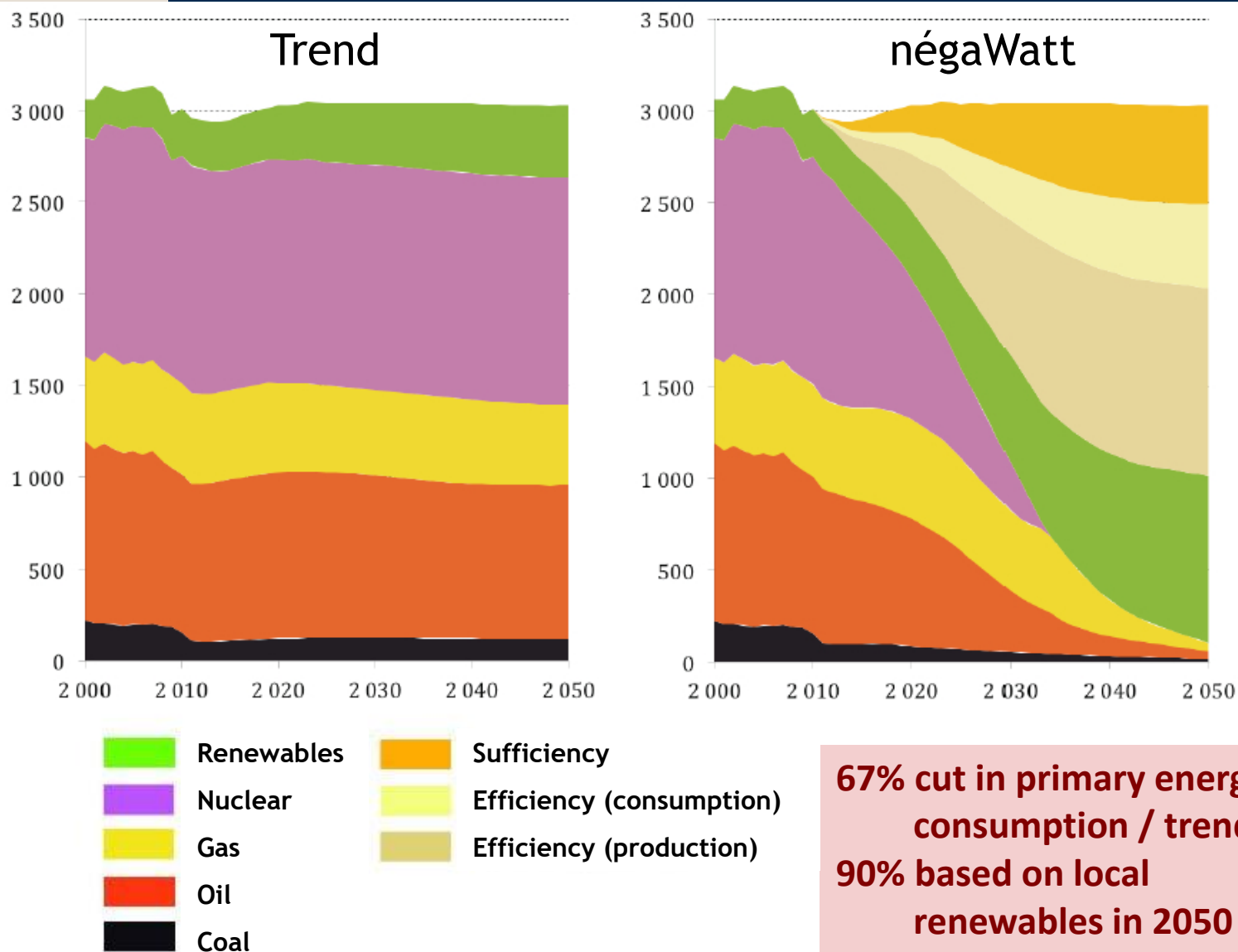


Phase out of stock-based energies

- 58 nuclear reactors gradually shut-down (before 40 years lifetime)
- Residual use of fossil fuels



Primary energy balance



67% cut in primary energy consumption / trend
90% based on local renewables in 2050

Greenhouse gas emissions

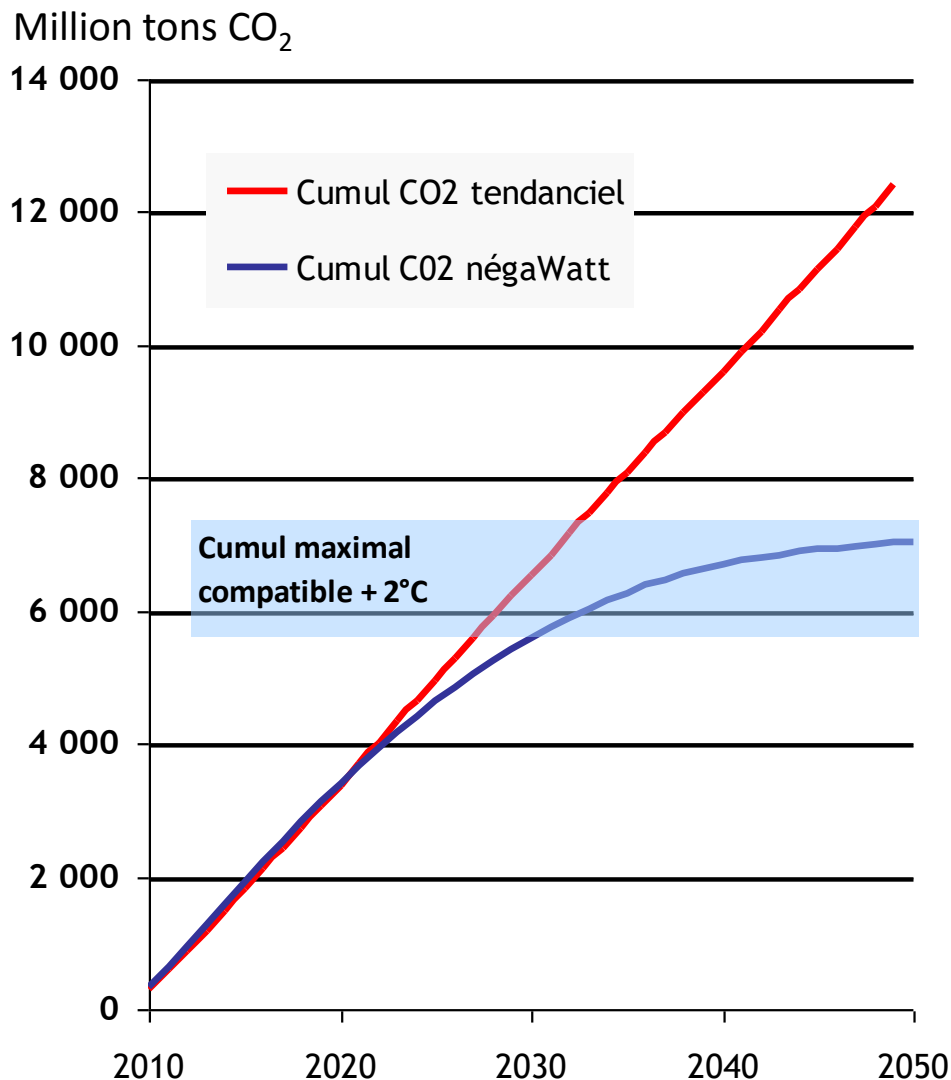
- **Factor 4 on GHG emissions by 2050**

Compared to 2010, CO₂ emissions divided by 16 by 2050, estimated GHG emissions divided by 4

- **Cumulated CO₂ emissions 2011-2050**

In line with France's fair share in a global mitigation scenario (keeping global warming below 2°C)*

* Based on carbon budgets, cf. study by Postdam Institute

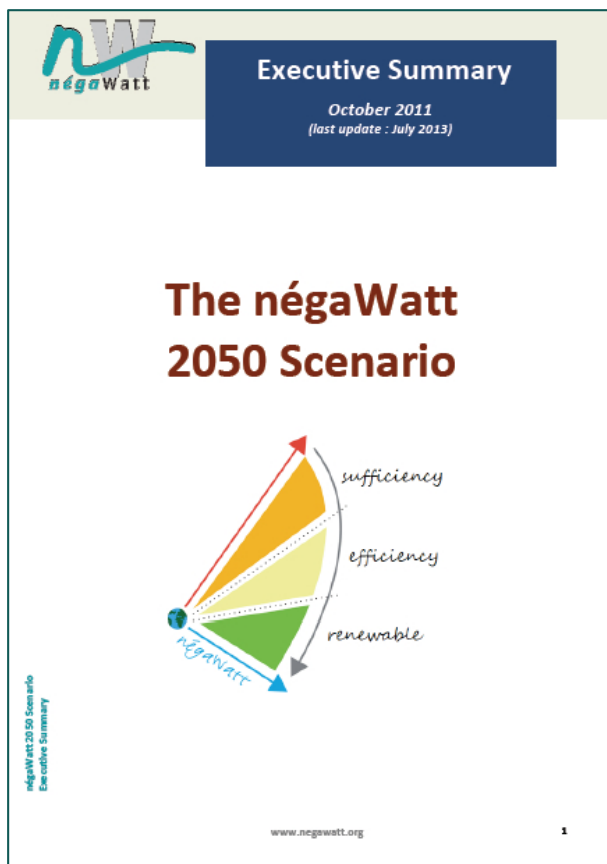


Conclusions and recommendations

- Based on existing and emerging solutions, it is possible to implement energy transition of a country like France to almost 100% renewables by 2050
- A strategy based on intelligent energy uses, technical solutions and choice of resources is needed to meet the objective of keeping below 2°C
- More efficiency and inclusion of sufficiency are the most readily available option to raise the ambition of countries' pledges (INDCs)
- Sufficiency in the North is key to equity with the South: in a globally constrained use of fossil resources, shifting useless uses of energy allows for increasing vital ones
- The négaWatt approach is based on strong values of fairness, equity, minimum risks, and 'no-regret' path
- The recommended solutions and policies can be replicated in many other countries

Thank you for your attention!

To learn more:



Contact:



Yves Marignac

Spokesperson,
Head of Prospective Analysis

yves.marignac@negawatt.org
+33 (0)6 07 71 02 41



www.negawatt.org