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Industrialisation of village in Southern France by solar energy

Louis Boisgibault

► **To cite this version:**

Louis Boisgibault. Industrialisation of village in Southern France by solar energy: How energy transition can dynamize a territory?. Annual Research Conference - 2014 (ARC'14), Nov 2014, Doha, United Arab Emirates. , Qatar Foundation, Energy & Environment (EEPP0277), pp.Ref. 10.5339/qfarc.2014, 2014, Proceedings volume 1. halshs-01121871

HAL Id: halshs-01121871

<https://shs.hal.science/halshs-01121871>

Submitted on 4 Mar 2015

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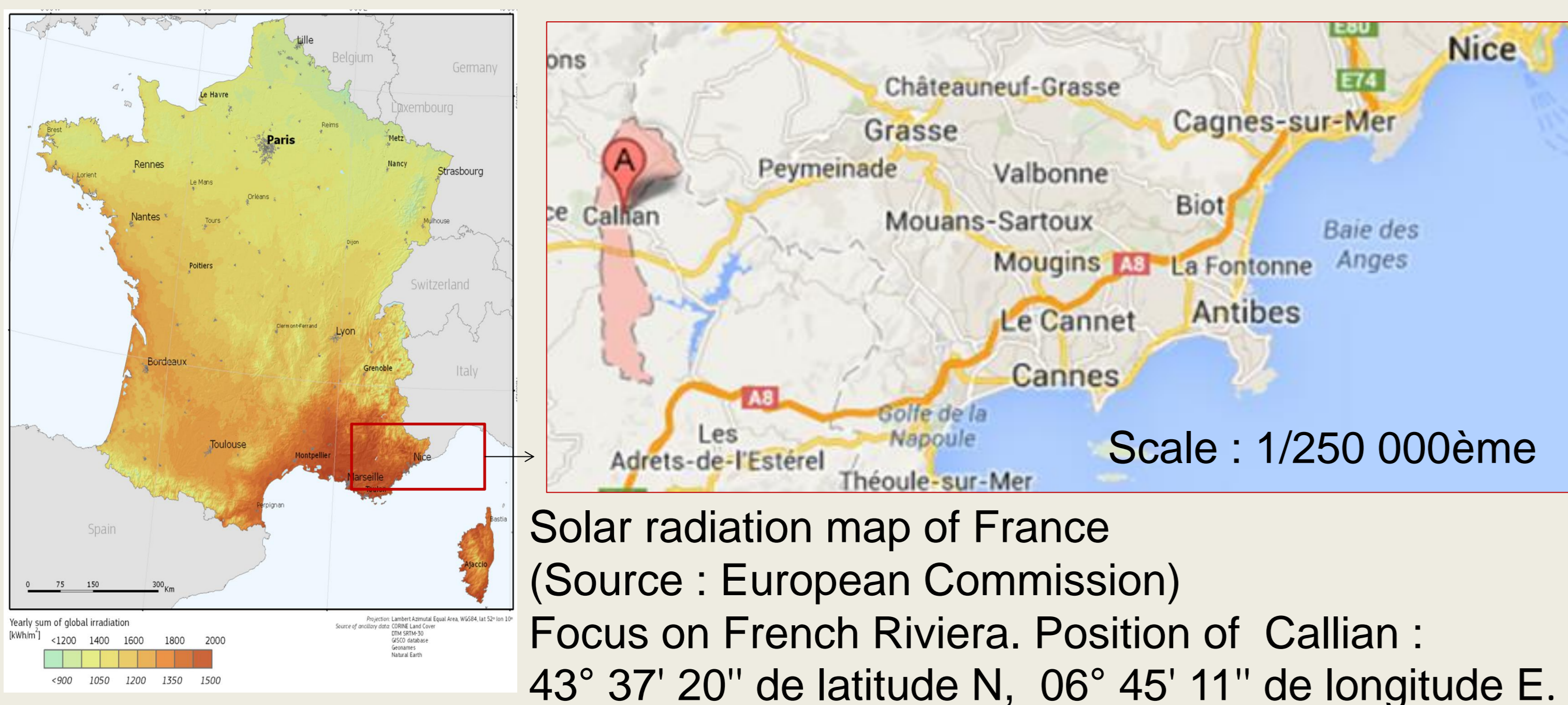
INDUSTRIALISATION OF VILLAGE IN SOUTHERN FRANCE BY SOLAR ENERGY

How energy transition can dynamize a territory?



PRESENTATION OF CALLIAN

Callian is a village of 3 000 inhabitants, 320 meters above the sea level. Located in Southern France, 30 km away from Cannes, its solar radiation is one of the best in France, with 1 600 kWh/m²/ year.



ECONOMIC HISTORY OF CALLIAN

- Before JC: the Romans built an aqueduct to channel water of Camiole river.
- 12th century: village becomes significant as evidenced by feudal castle.
- 19th century: Callian has a paper plant, 5 ovens, and 6 oil and flour mills powered by Camiole river.
- 1876: new aqueduct built to irrigate the plain.
- 1892: beginning of railways « Central Var », but trains stopped in 1950. Mills stopped as well operations.

AN AMBITIOUS PHOTOVOLTAIC PROJECT

- 2008: Callian signs a pre-agreement to rent the old landfill with start up company Eneryo for feasibility studies
- 2010: solar farm construction starts with private owned EPC contractors. 40 188 solar modules, manufactured by Sharp, are imported from the UK. Installed capacity: 4,7 MWp/17 hectares.
- August 2011: with CAPEX of 24 Millions €, solar plant is finished. O&M for Schneider Electric. Project satisfactory Internal Rate of Return is due to the 20 year Feed In Tariffs.
- During 30 years, Callian will earn old landfill rent and taxes, with no cost for inhabitants.



The PV solar farm (below) is located 2 km away from centre of Callian (above), uphill in the forest.



Every rectangle of solar farm represents 0,9 hectares

FIRST YEAR OPERATION 2012

- Solar radiation : 1 515 kWh/m²/year.
- Power production : 11,2 GWh.
- Power needs cover : 5000 inhab/3000 inhabitants
- CO2 emissions : 1 650 tonnes avoided.
- Job creation during construction : 80.
- Job creation during operation : 5.

**Old landfill is rehabilitated.
Population accepts this new green investment.**

Dynamics must continue around this solar farm in order to create more jobs.