

Claire LE RENARD

Born 17 May 1974

Claire Le Renard is a **social researcher at EDF Research and Development division**, Energy Technology Society Research Group. Since October 2015, she also is a **PhD student** dealing with "Sodium-cooled Fast Breeder Reactors in France (1945-1998): a STS analysis".



RESEARCH

In the last years, her research has dealt with energy technologies, rooted in a STS approach. She has carried out a sociological and historical analysis of the nuclear Fast Breeder Reactor technology in France, embracing the multifaceted context of the developments in a long time-span, and linking the prototype development with future visions and expectations. She currently is extending this research into a PhD thesis.

This PhD thesis aims at producing a history of sodium-cooled fast breeder reactor prototypes from 1945 to 1998, related to their justifications and the different ways of envisioning energy futures. In order to understand the coproduction of a political and technological project, the research will analyse the particular role of scientific fields such as economic science or physical science in the debate regarding the technology, especially in demonstrating its viability and safety. We will describe the debate surrounding the acquisition of knowledge and the modalities of evidence building, in a context of uncertainties linked with innovation, at a turning point for the institutions of technical democracy.

Before 2007, she worked as a R&D project manager in a team working on future studies in the energy field; her specific research was about the feasibility of integrating environmental and social concerns in techno-economic modelling.

TRAINING

- Since oct. 2015 PhD student at the Université Paris-Saclay, "Human and Social Sciences" Faculty, under the supervision of Prof. Frédéric Brechenmacher at LinX (<https://portail.polytechnique.edu/linx/>) and Prof. Pierre-Benoît Joly at LISIS (<http://ifris.org/fiche/lisis/>).
- 1996-1998 Training as an environmental engineer at the **Ecole Nationale du Génie Rural, des Eaux et des Forêts (ENGREF-AgroParisTech)**, Paris, including one semester in Vienna, Austria.
- 1991-1996 General scientific training in « classes prépa » and **Ecole Polytechnique**, Palaiseau, France.

PUBLICATIONS AND CONFERENCE PAPERS

- Jobert, A. & Le Renard, C. (2016), *Faire dialoguer scientifiques et politiques sur l'énergie nucléaire en France dans les années 1970 : deux initiatives autour du projet Superphénix*, in Beltran, A., Laborie, L., Lanthier, P., Le Gallic, S. (Eds), « Mondes électriques. Créations, circulations, tensions, transitions (19e-21e siècles) ». To be published.
- Le Renard, C. (2015), *Une analyse sociotechnique du programme français de réacteurs à neutrons rapides : les formes successives de l'évaluation*. Les Annales des Mines/Gérer et Comprendre, n°122, december 2015.
- Le Renard, C. (2015), *Le prototype, à l'interface entre une promesse technologique et son industrialisation*, in Cihuelo, J., C. Grandclément & A. Jobert (Eds): "Energie et transformations sociales : enquêtes sur les interfaces énergétiques", Lavoisier, collection EDF R&D.
- Le Renard, C. (2015), *Lines of tension: transformations around a Smart Grid technology project demonstrating the insertion of wind energy into the electricity grid*. 6th International Sustainability Transitions Conference, Brighton, 25-28 August 2015.
- Le Renard, C., Jobert, A., (2014), *Framing Prototypes: the Fast Breeder Reactor in France (1950s - 1990s)*. Science & Technology Studies, v27n2, 08/2014.
- Le Renard, C., & A. Jobert (2013) *A sociotechnical analysis of the French FBR programme: evaluation as a cornerstone*, Electronic documentation of the IAEA "FR13" conference, Paris, 4-7 March 2013.
- Le Renard, C., M. Lehtonen & A. Jobert (2013), *The diverging trajectories of Fast Breeder Reactor development in France and the UK (1950s-1990s): a tentative comparison*. Conference paper, 6th "Tensions of Europe" plenary conference, Paris, 19/09/2013.
- Le Renard, C., & A. Jobert (2012), *Relire le dossier Superphénix : enjeux et apports d'une approche socio-technique*, poster at the international conference (CNRS-ENS Lyon) « les chantiers du nucléaire », Lyon, juin 2012.