



Back to power generation – citizen new entrants’ challenges in re-assembling the energy sector

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Introduction (1) :

- **A late development of renewable energies in France**
 - led by various-sized private companies / a liberal model
- **Growing opposition to resource captation, with various concerns:**
 - attachment to territories and communities
 - expression of extra-financial values / social and environmental demands in project development
- **Apparition of citizen energy networks :**
 - more than 300 « energy communities / citizen projects » in France
 - counter-currenting a concentration movement in the sector
 - political and technical alternative(s) to the French energy sector organization
 - taking into account new objects as part of the process of producing energy (Callon 1986) and offering new commercial arrangements (Callon 2013) based on limiting the passivation of goods, and re-activating the « qualculating » function of energy producers and consumers

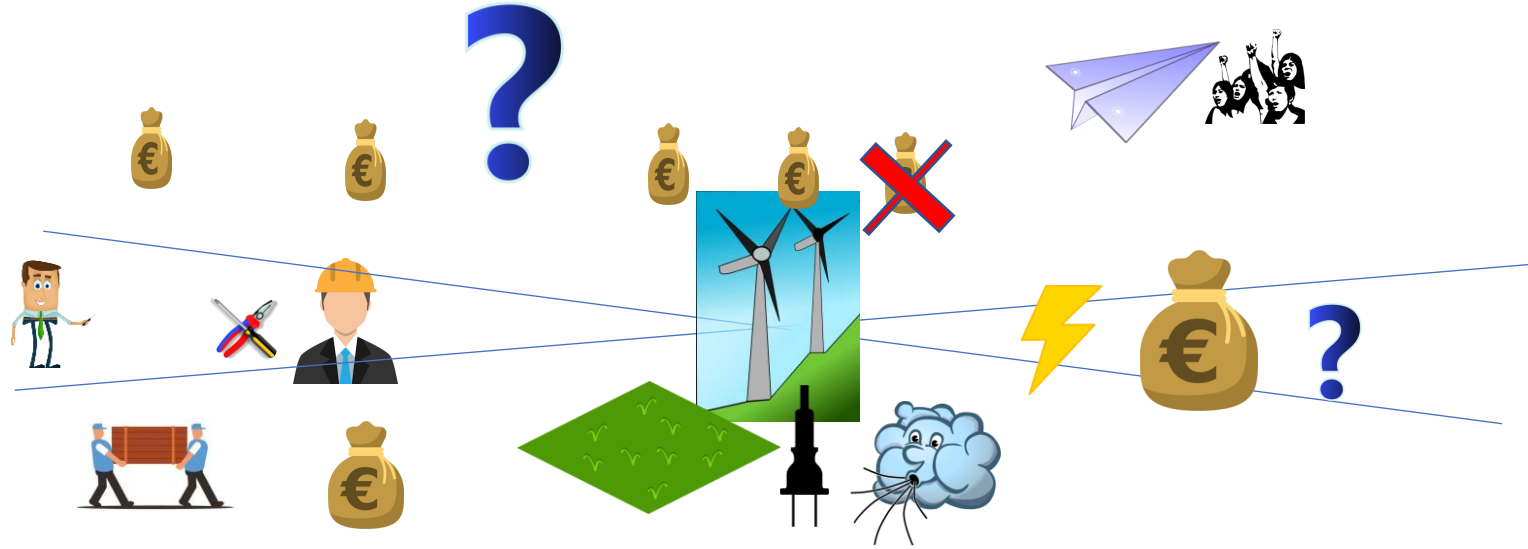
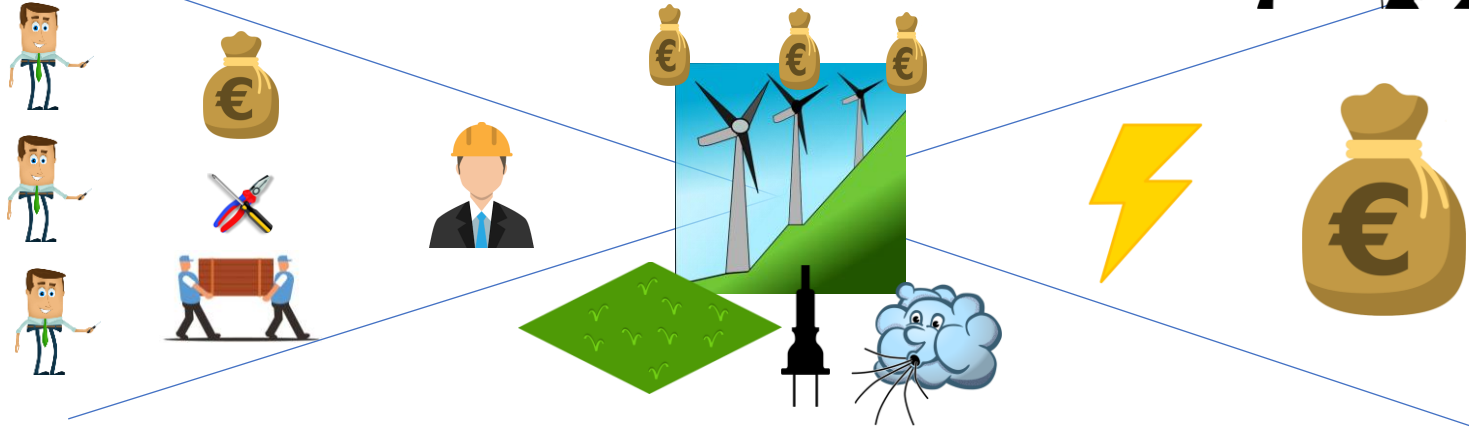


Introduction (2)

- **Going back to power generation is changing the nature of electricity:**
 - A citizens' critique of a steady state state-centralized energy sector in France
- **From criticizing this incumbent assemblage to performing new ones (?)**
- **To be described :**
 - an **assemblage building process** (gathering, joining, or assembling work) led by concerned citizens and allies in order to reshape the energy sector
 - **3 steps** (from expressing a critique to shaping an alternative)
 - the enhancement of new associations and localized networks (*collectifs*)
 - the implementation of new kind of RE production apparatus (*dispositifs*)
 - the constitution of region-sized / nation-sized alliances performing new apparatus
- **Have the citizens' alternatives to be standardized in order to flourish by fitting the reglementation and optimizing their resources?**
- **Méthodology :**
 - Current PhD Thesis research
 - 20+ interviews with concerned actors
 - Participant observation to a citizen solar project in Paris area
 - Documentation carried out by citize projects defenders, especially filmed webinars



Why are citizens projects / communities energy dispositifs different?





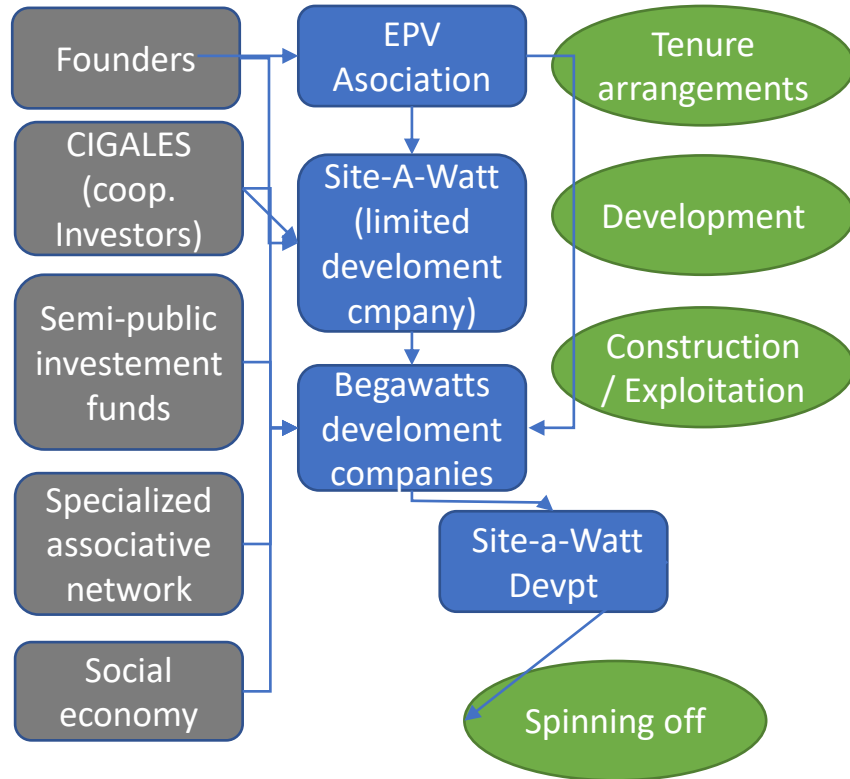
Why are citizens projects / communities energy different?



« In rural areas, there is sunshine, the wind is blowing, these are common goods, and there are people in there, who need heat and electricity, and something happens in there , but there is no longer any link»

Christel Sauvage, co-founder of Energie Partagée, 2013

New energy imaginaries make new networks



- **First citizen projects : various criticisms, possible dialogue:**

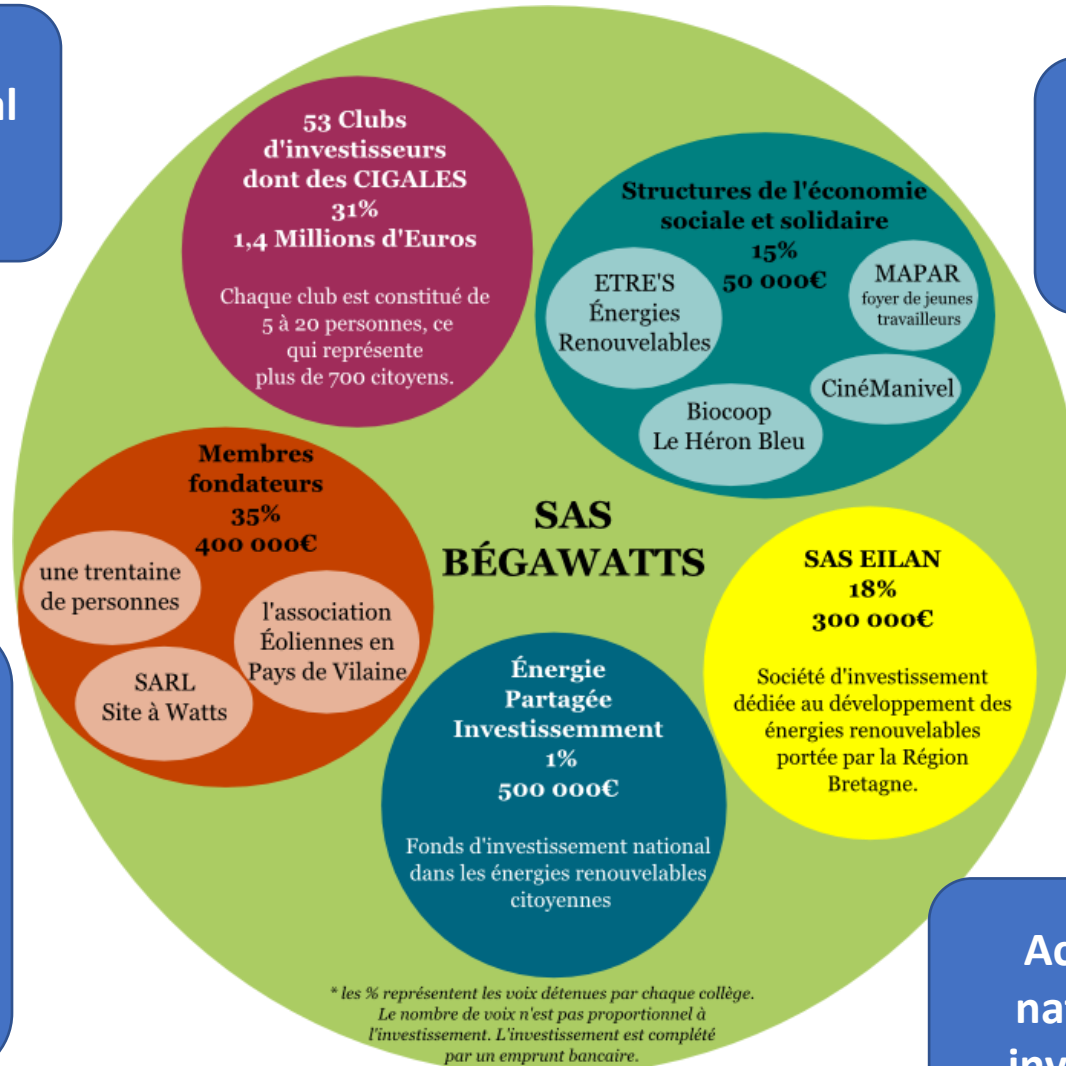
- Demonstrators against nuclear energy (Phébus near Creys-Malville nuclear plant, 1993)
- Initiatives aiming at territory revitalization (local communities, agricultural cooperatives)
- Criticisms against « colonial » wind power and liberal sun power
- Lately, civic and environmental commitments

- Assemblages are emerging from negotiations between the actors, in a narrow field of economical and legal possibilities ;
- By shaping these assemblages, actors are defining the local relevance and goals of the assemblage.

New networks get adapted rules

Activist local investors

Social economy



Founders : territorial and ecological alternative to RE production

Activist and semi-public regional investors

Activist national investors

** les % représentent les voix détenues par chaque collègue. Le nombre de voix n'est pas proportionnel à l'investissement. L'investissement est complété par un emprunt bancaire.*

Various ways of organizing networks

	Centrales Solaires Villageoises	Energie Partagée
Founders	Auvergne Rhône-Alpes Energie Environnement (regional association)	Various projects + Social economy
Organization	Horizontal	Semi-horizontal with feedback loops
Membership	Precise regional charter Implementation of specific technical and business models	Charter <i>a minima</i> Projects' validation by central committee
Main figures	Resident / Part-taker / Roof-owner	Project leader, citizen investor
Modus operandi	Strictly local initiatives Replication	Diversity, innovation Balance between local project leaders and national facilitators and investors Experimentation then validation Fédération
Explicit values	Energy transition Small is beautiful Landscapes Local development	Local initiative Democratic governance Non speculative vision Environment
Strengths	Localist aspirations are respected	Scaling up gets possible

Citizen projects values, limits and current assemblages

Values	Forms	Limits	Assemblages
Local base	Local initiative Recognition of local specifics	<i>What's a good scale?</i> <i>Need for external support</i>	Good scale is defined by public policies and existing networks / Partial financial standardization
Non speculative vision	Early citizens' funding Limited return on investment Contribution to other local projects	<i>Financial balance is hard to get</i> <i>No reward for individual risk-taking investors</i>	Business models depending on technology, size, and area. Constraints on business models
Democratic governance	Cooperative organization Peer-to-peer education 'Free' information	<i>Complicated partnership with public and private partners</i> <i>Limited leadership</i>	Rather small groups cooperation than multi-level democratic governance
Ecology	RE production	<i>Weak attention to other ecological objectives</i>	Attention paid to origin of components / local specifications / methanisation

- Real differentiation comes locally when designing the projects, but few choices remain after financial and technical constraints are taken into account
- On the short run, projects still have to insert themselves in a state-centralized global electricity production network

Conclusion

- Moving from the stage of experimentation to that of scaling up, citizen energy organisations are led to practical concessions with regard to the cooperative model - the role assigned to the citizen is, increasingly, that of an investor - a "patient" investor in an alternative electricity "network"
- The possibility still offered to every citizen who wishes to get involved, alongside his peers, in the ongoing construction of this network, guarantees its identity. However, the requirement for a critical size of projects and the rapid development of the alternative model call for new allies - investors from outside the region, local authorities, institutional investors, etc. - to join the network.
- The work of citizen project leaders thus presents certain similarities with that of matsutake mushroom pickers in Oregon (Tsing 2017). The sale of electricity collected through solar radiation or wind by the collective citizen, like the sale of mushrooms by the mushroom picker, does not mean their alienation because both have marked by their practices objects (electrons, mushrooms) which are then indistinguishable within a capitalist system that brings them to the final consumer
- The question of maintaining the identity of citizen energies in a context of increasing scale is raised, but the diversity of collectives, systems and exchange practices does not make standardization inevitable...