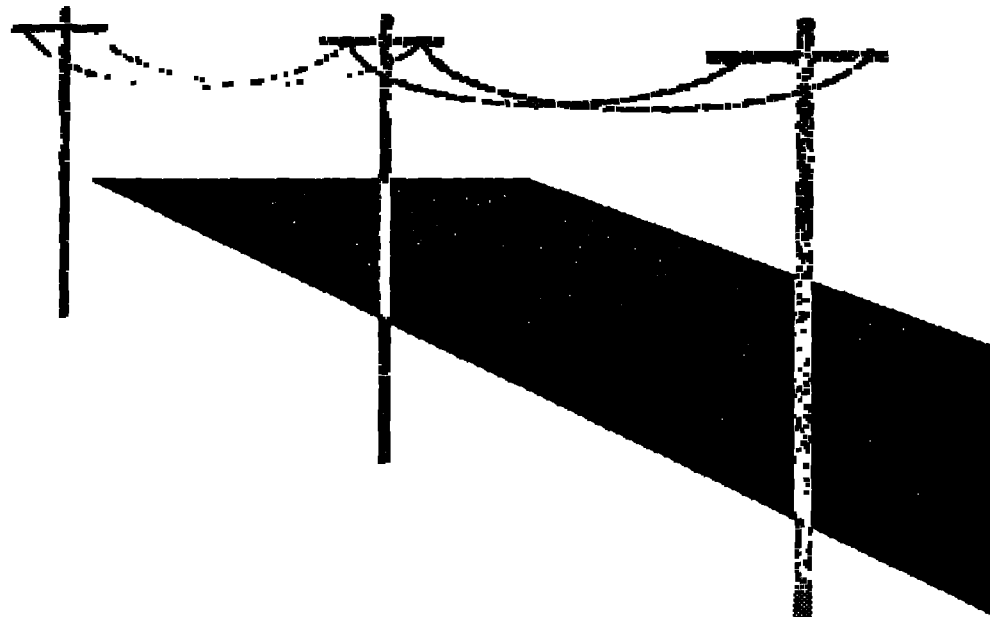


"Landscaping" and local development in France



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I'm going to introduce you to a quite familiar object, which you might observe while driving, walking in the mountains or through the countryside. I'm talking about high voltage power lines. Why this sudden interest in such a dull and rather ugly thing as an electricity pylon ?

I'm working for the French National Electricity Company, whose job is not only to generate electricity, but also to transport and distribute it. While distribution lines are small and sweet (at least some think they are...), transport lines are seen as big and ugly. As people tend to consume more and more electricity (although the last couple of years, electricity consumption has been stable in France), these transport lines are still necessary, since it is extremely difficult and expensive to **bury** very high voltage power lines (400 kV).

I'll speak about how people see these power lines, how they react when EDF builds new ones close to their residence and what kind of consequences this has on the value of the land. Then I'll describe efforts done by EDF to take local environmental knowledge into account and to diminish the impact of power lines on landscape. My paper is built on regular surveys about these questions in France and in Europe and four case studies (qualitative surveys) (*slide 1*). The presentation - as time is short - will be rather general. But I'll be happy to distribute copies of both case studies or survey results - in french - to anybody who wishes it.

1. A change of perception

1.1 The first period

Until the 1970's, electricity pylons were symbols of progress and modernity, and as such, accepted as something valorising for local communities. If protests aroused, they remained weak. According to french law, as soon as a high voltage power line is declared being of « public utility » by the Prefect (the regional representative of the State), electric pylons can be set up in private properties without « depossessing » the owners, that is without depriving them of their property. They can also be built in local community properties without any compensation (except a very small « pylon tax »). This procedure, called « public utility declaration », usually takes 3 or 4 years.

ELECTRICITE DE FRANCE

R&D division, section for social sciences

Environmental studies

<i>Research object</i>	<i>Tools</i>
Situations (Local conflicts, customers' attitudes and expectations)	Qualitative surveys
Opinion structure (perceptions of the environment, technical progress, nuclear power plants, power lines etc...)	Regular quantitative surveys

1.2 The situation today according to recent opinion surveys

Today, Frenchmen do not call into question the fact that electricity brings well-being and confort. But they do see that technical progress can also have negative effects : waste problems and risk for nuclear power plants, air pollution for coal, fuel or gas plants, landscape destruction for power lines.

Globally, when we ask frenchmen whether they think that technical and scientific progress will solve environmental problems in Europe, a small majority now expresses a negative opinion (*slide 2*). As we can see, this is a point of view which seems to be growing in France. In Sweden, a clear majority have no faith in technical progress, whereas Spaniards and Czechs are much more confident.

Frenchmen do not consider, however, that power lines are a major threat to the environment. When asked which item they find most harmful to people living nearby, only 5% mention high voltage power lines, whereas 36% think airports are most harmful (*slide 3*). We find similar percentages in the other european countries, except in Spain and in Sweden, where they are a little bit higher (9 and 11%).

Most of the people answering these surveys - as most of us being in this room - do not, however, live near by power lines. If they did, their answer would most probably have been different.

High voltage power lines are actually considered by many as destroying the landscape and thus diminishing the well-being of the people living along the power line. Moreover, the loss of environmental quality which follows the implementation of the line may also threaten tourism, which in some cases is a main income for local authorities¹ as well as for individuals and local companies.

Thus, today, absolutely all very high voltage power lines (and many high voltage power lines too) projects are stopped or slowed down by local opposition. Let us now have a look at why this kind of opposition grows and the way it is structured

¹ There are 36000 « communes » (≈municipalities, parishes) in France, their high number resulting in a very small size.

Question :

Do you think that scientific and technical progress will solve Europe's environmental problems ?

	1993	1994
1. Yes	48,8%	46,1%
2. No	50,4%	53,4%

Question :

Which of the following items do you think is most harmful for the people living near by ?

	1992 (%)	1994 (%)
1. A highway	8,6	11,9
2. An airport	37,8	36,6
3. A TGV	1,8	2,2
4. A high voltage power line	3,2	5,0
5. A rubbish dump	15,4	15,8
6. A nuclear power plant	19,1	17,1
7. A chemical factory	14,0	12,0

2. The nature of opposition as seen by four case studies

Up till very recently (and I will come back to this later), EDF (who builds the lines) seldom took the local context into account at all. A classical cost-benefit analysis led to the most economic and the technically best solution, but neglected environmental and social aspects. As a result, some power lines cross beautiful landscapes or pass near dwellings.

The opposition against new high voltage power lines thus appears for two reasons : firstly, because the value of the landscape is likely to diminish after the power line has been built ; secondly, because the residents feel they are confronted with a *fait accompli*. Their land is damaged, but they never had any chance to influence the decision, despite the fact that they are the ones who are going to suffer from it.

Often, these kind of movements are called NIMBY (Not in My Back Yard) groups. In their most radical form, they are called BANANA (Build Absolutely Nothing Anywhere Near Anybody) .

However, their consciousness and argumentation's evolve very quickly (*slide 4*). The NIMBY phase is actually very short, and is more used as a way of qualifying opposition as irrational than anything else.

1. The NIMBY stage

During the what we might call the « NIMBY stage », residents fight against the future power line most of all because they want to avoid aesthetic prejudices to their own private property (the power line is likely to diminish the value of their property). As Tversky & Kahneman showed (Tversky & Kahneman, 1986), individuals value a potential loss much more than a potential gain. Thus, this potential loss becomes a powerful « framing effect » (Lindenberg, 1989) leading to collective action.

2. The local stage

The power line gives rise to aesthetic prejudice to residents who do not take benefit from the electricity transported by the power line. Since they fear this potential loss, committees are created and ecological movements mobilised. As they act together, a

**EDF, high voltage power lines, residents and
ecological movements :
from conflict to common understanding ?**

<i>STAGE 1</i>	NIMBY : individual prejudice
<i>STAGE 2</i>	Local utility : collective action
<i>STAGE 3</i>	Public utility : global complaints
<i>STAGE 4</i>	Common utility : negotiations

common consciousness grows that the power line not only destroys their own individual property, but also the commons, the landscapes they enjoy collectively. The threat to local activities, especially tourism, becomes clear. The issue thus gets « localised », i.e local interests are brought to the forth, somewhere between national utility and residents' individual interests.

3. The global stage

If EDF hasn't responded to complaints and demands for negotiations by then, ecological movements and residents will tend to « globalize » the issue. Two more arguments then appears :

- high voltage power lines are not necessarily of public utility. Why not discuss alternatives, such as demand side management (energy saving) ?
- Electromagnetic fields (EMF's) generated by high voltage power lines may have negative effects on health (leukaemia, brain tumours).

The issue thus clearly becomes more political.

Generally, it is during this stage that the conflict becomes violent - and that EDF, driven to the wall, has to respond. The reaction thus often came at a moment when the relations between EDF and local actors were seriously deteriorated. These fights « between David and Goliath », have been widely broadcasted by media.

The consequences for EDF and it's image were enormous. That is why, as I said at the beginning of my intervention, after having lived through a lot of conflicts of this type, EDF now invites local actors to a new way of managing the commons.

3. A change of practice

A protocol between EDF and the State was signed in august 1992. Several improvements have been put into practice since then (*slide 5*):

- monetary compensation for property value loss to the residents living close to the power line ;
- technical compensation (i.e burying 20 kV or 63 kV power lines) for landscape value loss ;

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<i>STAGE 1</i>	Individual prejudice : individual compensations
<i>STAGE 2</i>	Local prejudice : technical compensations
<i>STAGE 3</i>	Public prejudice : research & development
<i>STAGE 4</i>	Common utility : negotiations

- wide negotiations between EDF, residents, ecological movements and local authorities before the exact routing is decided.

In addition, EDF conducts a wide research programme on electromagnetic fields. Epidemiological studies have been conducted together with HydroQuébec (Québec's electricity generation & distribution firm), and biological studies are done in partnership with french public research laboratories.

A contingent valuation study is also conducted in order to internalise the costs of landscape destruction in a special tax which would be added to the electricity bill. More power lines would then be buried.

Last, but not least : EDF has launched an international design competition for new high voltage pylons. Two winners have already been selected.

Conclusion

I don't know if the experts of the « International Association for the Study of Common Property » would call this new process a way of « reinventing the commons ». EDF has certainly a lot of progress to do. Learning to listen to residents, ecologists and local authorities is a long and difficult task for a technical company.

Still we can see that the situation has changed radically :

Before, the owners of a land, be it individuals, companies, farmers or local authorities, were, according to french law, **not** considered « dispossessed » of their property by a power line crossing the land. Thus, up till recently, they were not **consulted** by EDF about the project, just **informed** after the final routing decision.

Now residents, ecological movements and local authorities **participate** in all phases of the project, in order ensure that local interests and knowledge (especially about traditional use of the land) be taken into account.

Due to the threat to landscape quality, the landscape is thus managed in common by all the actors concerned. The aim is to achieve an equitable and sustainable management, ensuring both landscape preservation and transport of electricity, at a reasonable cost.

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