

The technological entrenchment could be dangerous. A case of a conflictive sitting plant in the Basque Country.

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Abstract

This work describes a conflicting case related to the construction of a Combined Cycle Gas Turbine (CCGT) plant in Boroa, Basque Country. This case is submitted in three stages: i) the roared, ii) the hiding, and iii) the attacked thermal plant. In spite of the difficulty to generalize any conflict, this escalating conflict experience (Galtung 1971) opens the discussion around the following themes:

First, the “roared thermal plant” serves to confront the initial strategies to enrol allies under the translation model for Latour’s artefacts (Latour 1987, 1992, 2005) and the framing processes for the social movement as per Snow and Benford (Snow and Benford 2000). The tactic to translate interests from the future allies to artefact (or technology) supposes attitudes and behaviours which are different for heterogeneous engineers in comparison to others who propose to bring friends by specific goals, values and ideologies.

Second, when the legal instance for the construction was reduced to the city council, “the hiding thermal” plant confirmed the pertinence of the institutional frame approaches to comprehend the configuration of energy systems (Russel 1996; Winskel 1998, 2002; Summerton 1993, 1994). Here, the role of technical-core in this kind of conflicts, and also the assumptions related to the handling of conflicts in the system-builders, are discussed. Especially when political opportunities give impetus to local mobilisations (Tarrow 1992).

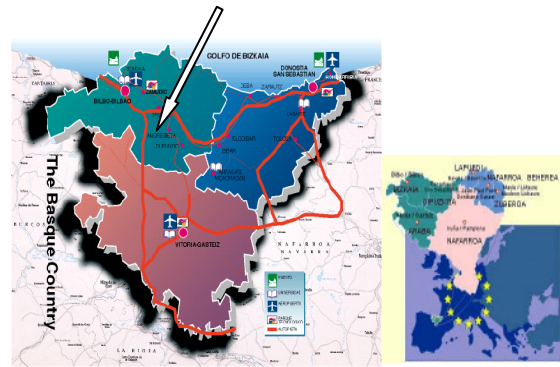
Third, in Boroa technical justifications and local political agreement closed all legal instances to construction. The local mobilisation got worse in hostility and aggression, and the technological discussion was replaced by political party allegation until “the thermal plant was attacked”. This situation exposes the problems for energetic technologies configuration inside societies with structural violence (Galtung 1971). NIMBY groups as agencies (Barnes 2000) can negotiate their local energy, just when they were able to transcend their local worries (Ibarra 2002), like some social environmental movements (Smith 2005). Here, the proposal is based on the combination of i) local energy engineers mobilised, and ii) inclusion of neighbourhood affected through management of conflicts.

Key words: Social construction of technology, social movements, NIMBY, energy system, conflict.

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I. The roaring thermal plant.

One day, the neighbours of the Boroa Village heard strange news. A big monster would come to the town. The pamphlets spoke about serious problems for Zornotza's (*) family's health and quality of life. They could be rumours or even reality? Would problems be that serious? Do we have to mobilise?



()Figure 1: Zornotza Location. The Basque name of Zornotza or the Spanish name of Amorebieta-Etxano represents a town that is located in Biscay province of the Basque Country at the North-East of Spain. Source: www.euskadi.net*

Previous to these questions were other questions specially related to the possibilities of liberalisation of the energetic market in Spain. Basque politicians had not lose this opportunity, they wanted to produce their own electricity and by this way, to decrease their dependence on foreign electricity. In this regard, they invited some well known companies to participate in the business to produce electrons. One of their guests was ESB S.L., an Irish company that has worked in the Basque Country before. They produced electricity by Combined Cycle Gas Turbine (CCGT) process, and by that time they owned two plants working in Ireland and England. For this reason, they viewed good perspectives at the Basque Country, a country not so different nor so far from those countries.

I.1 Enrolling the allies

One of the initial things to start up the combined cycle was to look for the place to locate the plant or the black box. In Latourian words, this decisional process can be described as the third step in the process to construct the artefact (Latour 1987). Transference in this energy plant works as the “diffusion model” of the artefacts. This model was criticized by Latour because in this perspective underlies the idea that: *“black boxes have their own energy and can displace by means of their internal forces”* (Latour 1987: 132). Therefore, *“the behaviour of people is caused by the diffusion of facts and machines”* (Latour, 1987: 133). In opposition, Latour proposes to investigate the deep causes in the “translation model” perspective. Here, the artefact, not only simple clients, stays in front. When installing a CCGT, the people to be enrolled are not the same that was needed in the initial phases of translation¹. Now, for example, local politicians, construction engineers, maintenance experts, commercial agents, regulators, clients, as well as a location, are needed.

Latour stresses the process to enrol other people in the way to find real, although not explicit, futures allies' interests. In this task, the artefacts constructor must work in different kinds of detours around the goals of the different actors. The strength and power of his network are the result of enrolling the strongest allies in the right time through detailed exercises of translation. Latour uses the metaphor: to go

¹ There were necessary many efforts and contingencies to conceive the CCGT as it is today: a large scale plant. Before, combined cycle was characterized by its modularity and was used to support large plants (Winkel 1998: chapter five).

The technological entrenchment could be dangerous. A case of a conflictive sitting plant in the Basque Country in others' shoulders (Latour 1987). In this sense, his friendly attitude and behaviour especially to local politicians and regulators are crucial for the compatibility of their respective goals².

The energy policy in the Basque Country proposed the increase of modern and efficient technology to produce electricity, the government worked actively in natural gas supplies. Their bet was to increase the producers and commercialization nodes in the new electrical configuration inside the country. Proponents just needed the installation of the plant. As explained by one of the engineers this was a "deep negotiation", at least, the plant needs a lowland to support the work of the generator, the nearest connection to gas supply, an appropriate high voltage ring for production discharge, and water supply to refrigerate the boiler. These conditions were not easy to find over the Basque geography. But Boroa, in Zornotza town, was the place they started to engage in the project, particularly along the controversial Industrial Polygon IU-13³.

Just when some people of the town, local environmentalist, and urbanising workers of the city council spread the news, another enrolling task started quickly with a clear purpose: "To stop the construction of the CCGT plant in Boroa". Zornotza has a long tradition in contentious actions. That helped to activate the town's social capital: local groups, sporting associations, environmentalist ONGs, friends of other political campaigns and referential personalities of the town, all of them provided an energetic diffusion task. Letters, information on the risks to health, comments in a monthly magazine of the town, and a well attended meeting, were enough to inaugurate the Zornotza Bizirik Platform (Larrinaga 2004).

The strategies to fight were in legal/official and mobilisation fields. The strategies to enrol sympathisers in a mobilization are explained by Benford and Snow under the "framing perspective"⁴. From this perspective, the initial strategy of the confrontation is the "Frame Bridging" and this "refers to the linking of two or more ideologically congruent but structurally unconnected frames regarding a particular issue or problem" (Snow and Benford 2000: 624)⁵. Some different interpretations of the CCGT can be nearer than others according to an ideological status and that, presupposes pre-existing values, beliefs and interests in the community. The efforts are principally rhetoric and are related to construct the common sentiment of

² The reference to attitudes and behaviours is connected with Johan Glatung's proposal of conflictive practice. The author explains the escalate of conflict as a synergetic relation between three aspects of the practice: i) the incompatibility of goals, ii) the hostility behaviour and iii) unfriendly attitudes (Glatung 1971).

³ The availability of polygon came from a frustrating project of the Basque Nationalist Party (PNV). There, the politician and the charismatic entrepreneur wanted to construct the biggest automobile industry. This opportunity promised many jobs for neighbours and was connected with metal mechanics know-how; a practice related to Basque culture. On the contrary, CCGT plant needs only forty workers. In synthesis the expectations for neighbours were frustrating.

⁴ The authors take the term Frame from Irving Goffman and they explain that:

"The term "frame" (and framework) [...] to denote "schemata of interpretation" that enable individuals "to locate, perceive, identify, and label" occurrences within their life space and world at large. By rendering events or occurrences meaningful, frame function to organize experiences and guide action, whether individual or collective" (Snow, Burke, Worden y Benford 1986:464).

And specifically for social movement the notion of frame is explained in this performative way:

"This denotes an active, processual phenomenon that implies agency and contention at the level of reality construction. It is active in the sense that something is being done, and processual in the sense of a dynamic, evolving process. It entails agency in the sense that what is evolving is the work of social movement organizations or movement activists. And it is contentious in the sense that it involves the generation of interpretive frames that not only differ from existing ones but that may also challenge them" (Snow, and Benford 2000: 614).

⁵ The following two strategies are amplification and transformation frames: "Frame amplification involves the idealization, embellishment, clarification, or invigoration of existing values or beliefs [...] and the Frame transformation the final strategic alignment process, refers to changing old understandings and meanings and/or generating new ones" (Op.Cit.: 624).

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injustice. The power of the contentious network can enforce by the enemy image too. The obduracy in the CCGT made possible the increase of neighbours claims, because through this black box was easier to blame the association between institutions and companies, for their problems.

Summarizing, the obduracy in the energy plant hinders the social construction mechanisms of the CCGT system, what is a clear disadvantage from Latour's point of view; while from the Snow and Benford's perspective, the obstinacy acts in favour of the local contention.

The future plant in Zornotza must approve all the declarations of environmental impacts (DEI). For that purpose, the proponents managed three different DEIs: The industrial polygon, the plant, and the electrical distribution. Each process has different responsibility; the polygon was managed by Boroa Sociedad de Gestion S.L., enterprise that depends of the Biscay Regional Council, and the two last approbations were under the company's responsibility, now called Bizkaia Energía S.L. (BE)⁶. There were at least three areas under regulation: local, regional, and state. This process lasted approximately two years. The design was coexisting with the suggestions from the official sector. For example, the modification of the plant's refrigeration system from one by water to one by air was discussed between the official experts and the proponents. If at the beginning the refrigeration of the plant was made by the river Idiazábal then it was changed for large air-condensers. Thus, in the management of the requests, environmental and other sectors licenses, the technological solutions are conformed. From these legal instances, the specialists work together and design according to the knowledge and the requirements discussed between proponents and regulators. There is not a checklist of forecasted tasks for the model of combined cycle plant in particular, by means of which a score to reject or approve is given in accordance with a standard. The technical teams discuss and then redesign a new submission. The degree of negotiation between promoters and official specialists is another point of confrontation since many of the approvals are conditional, that is to say, they are given a pre-approval with the commitment to submit further information and make clear certain uncertainties. In general, the additional requirements consist of more technical reports and even re-design. The transformation in a *roared plant* was decided within plant DEI process; the first of DEIs approvals. This was an anomaly because the synergetic impacts of the plant were not deeply evaluated. That was a strategy for the proponents: "divide environmental impacts to win". Besides, the official process is asymmetrical with vicinities⁷ and this is reflected in regulated processes: the citizen only had 30 days to put allegations and appeals of each DEI. They haven't technical consultancy. The neighbours are almost invisibles agencies in the DEI process. With this panorama, the plant was getting even darker to their eyes, and concurrently gave strength to the slogans of ZB: "the destructive monster of the thermal power plant". The massive manifestations, interventions in the local council, the increase of alliances with other neighbouring council administrations, the opponents' charges of the government party: The Basque Nationalist Party (PNV) treated the union inside the council of Zornotza.

⁶ For more information: <http://www.bizkaiaenergia.com/> (10/05/07).

⁷ In a previous work I named this situation as structural violence (Baigorrotegui 2004) in reference to Galtung's work (Galtung 1971).

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II. The hidden thermal plant.

The success of ZB's mobilisations put pressure on the mayor's management and, despite the already approved DEIs, she announced a citizen consultation. This announce started a conflict inside her party; the governing PNV. The party leader's pressure was stronger than her leadership. Finally, she was left alone and had to take away her initiative of public consultation. As a result, her political carrier declined abruptly, while the ESB proponents applied for the activation and construction licence in the council.

The city council decided to contract an environmental engineer to respond to city-planning and local requirements and to respond to the claims with more, and more relevant technical reports. Besides, and atmospheric monitoring plan, an exhaustive protocol for construction, and a plan for landscaping adjustment were added to the basic project by the city council. In the last plan the thermal power plant was surrounded by a line of trees and the dimensions of the plant were reduced, since the standards of local urban planning restricts constructions over 10 meters high. The exception to this restriction was obtained only due to "technical justifications". The efforts to achieve security by means of plans, information and hiring specialized personnel did not calm the population that observed the different opportunities in which government officials and proponents developed technological solutions without the approval of the community.

For this reason, the citizen platform faced great difficulties to influence on the final decisions. At the local level, promoted a citizen referendum at the margin of law. The participation process was organised in three months. The participation was 47% of the population, with 98% saying "No to the plant". The next steps were to show these results to local and autonomous authorities as a mechanism of political pressure to stop the construction.

II.1 The institutional frame

The importance of the institutional frame in shaping sociotechnical energy systems had been particularly treated. This perspective proposes to follow not only the interests of an actor or agencies but also the institutional interests (Russel 1996). Or the crucial encompassing of politicians and regulators for the scope of a project (Summerton 1992: 250-1) and the value of political reports to understand the preferences of one technology rather than another (Winskel 1998, 2002). These approaches highlight the association between system builders, politician and regulators for the success of any energy project.

But, what happens when the vicinities are outsiders of this frame? The citizen platforms try to push again the force of these concatenated institutional interests by alternatives modus. Protest, street sittings, manifestations, denunciations by mass media, all of them are opportunities to emphasize the local interests against the institutional ones.

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For the well known NIMBY mobilisation the negotiation of its possibility to go beyond the borders of the town depends, in part, of effectively arguing the technology problem⁸. The success in this task can transform the NIMBY group in a mature social mobilization (Ibarra et al. 2002) like some environmental movements, and can re-frame or negotiate the technology (Smith 2005). Here, the proposal is that the resisting citizen platforms be supported by agencies in an electro-energetic mix related with the management of conflicts.

When the entrenchment in technology and the use of institutional forces are so opposed to local claims, the conflict in a local territory tends to escalate, the technology problem becomes stranger for community, and the community itself remains obdurate.

In the Boroa case, the authorities did not hear the results of ZB's referendum; their hostility changed the dynamics of the confrontation just when the ZB platform received the approval of the construction licences from the city council.

In synthesis, the possibility to transit from the local to global dimensions, the micro to macro levels, depends on different aspects of local conflicts. Especially when highly entrenchment policies on energy technology coexist with communities with high capacity to go into conflict.

III. The attacked thermal plant.

The dynamic of the confrontation in the town, went on political partisan ways and far from energetic themes. All the allegations were against the governing party. The company continued to show a friendly image to the town, trying to show the Irish values and traditions to the Basque neighbours. Some of its communicative strategies were to arrange school competitions about environmental and energy themes; to sponsor activities in sporting clubs, to raffle off flights to its plant in England with the purpose to reduce people's perception of the risks; to hire Basque engineers and local micro enterprises, and so on. However, the ZB platform continued to manifest periodically in front of the plant building with banners saying "Stop the building works". Despite these allegations, the PNV party won the next city council elections. ZB did not accept to participate as a party in the election, and five of its members started a hunger strike for five days, requesting to paralyse the construction of the thermal plant. In October of 2005, ETA, the nationalist terrorist organization, exploited four bombs in the surroundings of the polygon. Nobody died because all the workers had time to abandon the place, and the bomb's explosive capacity was low, although the danger to cause death was real. Three months later, the president of the Basque Country, Mr. Juan Jose Ibarretxe, inaugurated the CCGT in Boroa. The president underlined the energetic efficiency of this kind of technology and the goals of electricity self-production within country.

⁸ For Ibarra to transcend the localisms of NIMBY moments is the possibility to evaluate not only for the affected groups, but for a wide community (Ibarra et al. 2002). In this sense the CCGT technology as a domain of the contention practice, could largely diffuse the worries suffered by the communities.

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III.1 The entrenchment of the energetic institutional frame to violence

Most of environmental mobilizations in the Basque country are closely interrelated with a nationalist narrative (Ibarra 1995). The Nimby mobilizations have been named as moments of the Basque ecological movement (MEV), particularly incorporated when the problematic is related to the national energy policy (Bárcena et al. 1995). But this relationship is not free from controversy, even inside the MEV, especially when the consensus is about the prominence (or not) in the use of the force and violence in contentious actions (Bárcena 1995).

The plurality inside the ZB platform, during the mobilization, was always negotiated in its meetings and open assemblies, but the intransigence of the local government gave impetus to more extreme activists. The magnetic camp of a major conflict increased violent actions despite the non-violence initial intentions of the ZB platform.

In a country with so hard political tensions, the strategy of energy projects does not conceive citizen participation. But this situation has not changed the structural tendency on independent votes. The left wing of the Nationalist party, known as *abertzales* haven't got a significant environmental representation besides their traditional parties, because their values, beliefs, and Cosmo-vision are well connected with self-organization and the sustainability principle of the majority of green parties (Bárcena 1995).

In this situation, the interpretative flexibility of the energetic mix is constrained. The technological energies are inserted in a nationalist framework. But this situation is not easy to manage, especially when the conflict in a host country is intractable. In this scene, any large initiative related to energy will be strongly connected with the governing regional party, at least in two aspects. First, to protect of non-nationalist sectors like official institutions that regulate the tariffs for the Spanish sector upon the autonomic market benefits, and second, to protect them from the attacks by the more radical nationalist groups.

The power of negation is one of forms used by citizens to limit drastically some technological projects. In Basque case, the production of electricity by nuclear energy is not considered in the future energy strategy⁹ and the majority of renewable technologies are led by Basque authorities, for example the company "Eólicas de Euskadi", the financial support to photovoltaic and thermal installations, are some of official projects to increase a 12% of electricity production by renewable in 2010¹⁰.

In summary, Basque Country has a dominant technological energy framework (Bijker 1995), but that situation does not exclude the possibility of radical technological changes. These changes could emerge not only from the interpretative flexibility, and the extraordinary translations of the artefacts and systems constructor, but also from the force of the opposition.

⁹ The Basque anti-nuclear fight caused various deaths. ETA's activists as well as workers from the Lemoiz the nuclear plant who died, still determine the anti-nuclear policies in Euskadi (Bárcena 1995). Even considering that Euskadi imports electricity of nuclear plants from France.

¹⁰ For more detail refer to the Basque Energetic Strategic (3E-2010). Available at: www.eve.es (9/05/07).

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IV. ZB platform as an energetic agency.

The ZB platform could be a good opportunity to discuss openly the energy problem in the Basque Country. For policy-makers the inclusion of worried and affected people in energetic problems could represent a strong impetus to promote energetic policies regarding efficiency and savings. The legal/official instances for neighbourhoods and citizen's participation were scarce, and when they were finally reached, the violence of confrontation was getting worse.

The influence of the ZB platform could make problems to be irreversible for the company, especially in case some workers were dead by the terrorist attack. Despite the abundant resources used to show the town a friendly image of the company, there were occasions when the project was close to abandon the town.

The CCGT showed different designs to adapt the installation to people's worries. The dimension which was in accordance to the city normative, was re-designed to include benefits for the neighbours, for example, its configuration was changed for a cogeneration plant. According to different experts, there is no discussion about taking advantage of the combined cycle technology in general.

The people of the town were an example of mobilization group on account of their creativity. The plurality of its activists, its long and permanent mobilizations gave seriously problems of governance. Maybe for this reason they were first, named like "egoistic citizen" and then "leftist extreme activists". Only in the first part of this local conflict they can discuss around energetic and healthy themes. Their auto-image like user of electricity was scarcely treated.

But at this moment neighbours can be transformed in agencies¹¹ of the energetic system only marginally. The scarce of financial support in some micro renewable installations is an example. But the electric configuration continues along the communities, especially in the expansion of electric connections, and of course, with few possibilities to submit within 30 days a complicated allegation or reports within the DEI process.

There are many difficulties to generalize this kind of confrontation. In the Basque Country are five CCGT projects and only Boroa has produced a so large mobilisation. In general, conflicts have serious problems to generalize and NIMBY confrontation yet more. They are subjective and therefore difficult to forecast their emergence. There is a consensus that this kind of mobilisations are growing. In Spain the phenomenon of platforms against the CCGT projects is growing¹².

¹¹ According to the notion of agency given by Barry Barnes: "[...] it is analytical to the concept of agency that a person (i.e. an agent) *could have acted otherwise*" (Barnes 2000: 27 [original emphasize]).

¹² One of the examples is that the different platforms against the thermal projects in Spain was called: "No a las Térmicas". Available in: <http://www.nodo50.org/termicasno/> (9/05/07).

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V. Controversial projects and conflictive projects are not synonymous.

Which are the roles that the NIMBY mobilisations can play through smoother energy paths¹³?

An importance aspect here is trying to reduce the use of violence. And in this sense, the excessive technological entrenchment of energy technology can easily produce the escalation of violence. The Boroa case gives an example in which the previous tension between political and cultural aspects provides a good fundament to attract the energy project to a confrontational dynamic.

One of the problems for the explanation of constructing energetic systems in a conflictive environment is related to the role of the “technical core” in that construction.

Summerton, for example, introduces her multi-level organisation in the energetic grid-based system in the centre of the configuration: “The Energy Company is the only organization whose interests and activities wholly coincide with those of “the system”” (Summerton 1994: 83). She gives relevance to a meso level in the explanation, and particularly the conflictive relation within the institutional frame:

“Actor-network theory underscores the crucial role of conflictual interactions and their outcomes, a focus that is also reflected in the social constructivist emphasis upon the “constant negotiation and renegotiation” (Bijker et al. 1987: 13) among groups of actors in shaping technology” (Summerton 1992:73).

Despite her appreciations the role of conflicts within this frame is excluded. The attribution of system-builders as managers of conflicts is common, in words of Summerton:

“When conflicts arise, systems-builders may find it preferable to resolve them through compromise, negotiation and renegotiation, and consensus-building rather than shows of force. Confrontation threatens system cohesiveness” (Summerton 1992: 92).

This means the assumption by which system-builders are open to negotiate any terms that can disturb their projects. In this sense, this possibility presupposes some attitudes and behaviours in their technological praxis. Mainly, with their allied candidate. Many strategies for seduction, described by Latour and Law, describes others interest to our own interest. In this sense, a friendly and very low hostility is assigned to system-builders in their way to transform the obligated pass point¹⁴.

¹³ Especially in the sense of “gentle, pleasant and manageable” that Lovins gave to this notion of *soft energetic technologies* (Lovins 1977). The distinction is given because here is excluded the idea of technology inherently peaceful. The conflicts at eolian park sitting in Gibraltar is an example (Estévez & González 2005).

¹⁴ In this sense, the predisposition in heterogeneous engineers can not be free from ideology, as expressed by Latour as follows:

“ANT turns into nothing but a “sociology of engineers”, or worse, a group of consultants teaching those who have been freed from disciplining power of reason to be more Machiavellian, even more scheming, even more indifferent to the difference between science and ideology” (Latour 2005 :252).

On the contrary, they have a predisposition to successful projects, for example, their own energetic initiatives. Maybe they could be indifferent but probably to any other technological change.

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Symmetrical constructivist perspective describes as “spectacular manoeuvres” the incardinated forms in which artefacts, machines and systems are conformed by (human/not human) agencies. This approach refuses to describe in moral or justice terms the sociotechnical constructions, because the “good or bad” construction should result of successful or failed sociotechnical uses¹⁵.

But what happens, in practice, when the adversaries have opposed strategies to construct? What happens when their constructions are confronted in terms of ideology, believes, values and rights? The system-builders, specially the engineers and experts, seem like shadows behind the politicians and business directors. Their attitudes and behaviours in relation to resistant agencies are predominantly, indifferent or arrogant in front of claiming neighbours.

The education of engineers and experts has been controversial (Mitcham 1994). The ONG Engineers against poverty, works in concepts like “conflictive sensitive-Business” to create abilities, especially in projects that include transference of technology to third world countries¹⁶. The sensibility to other cultures and the project as technology for human development goes in the way to propose previous attitudes and behaviours which are pro-positive with the community.

The interpretation of framing processes (Benford and Snow 2000) for a collective action is ambiguous. It is difficult to see the difference of a Frame. Various forms and generalities for each domain of frames make difficult to understand the methodology of this wide process of signification. To denote any domain of a problem it is necessary to analyse the discursive and narrative aspects of the framing. This prevalence rests importance on praxis aspects. Specifically, the role of the technological practice is almost absent. The proposition here is to include the material and technical aspects in framing processes to contention actions.

VI. Conclusions

The inclusion of resisting neighbours can transform drastically the configuration of local energy installations. The possibilities to transcend its local configuration depend partly on what possibilities have neighbours to confront technological options.

The success to manage techno-local conflicts in energetic sitting projects is one of the promising options to transform NIMBY groups in visible agencies within the energetic panorama.

¹⁵ This idea is possible to recognize in the following Latour's calling for the inclusion of the non human in the moralities or values sociological analysis:

“Prescription is the moral and ethical dimension of mechanisms. In spite of the constant weeping of moralists, no human is as relentlessly moral as a machine, especially if it is (she is, he is, they are) as “user friendly” as my Macintosh computer. We have been able to delegate to non-humans not only force but also values, duties and ethics. It is because of this morality that we, humans, behave so ethically, no matter how weak and wicked we feel we are” (Latour, 1992).

These words are remarkable in its pluralistic efforts to analyse widely the morality aspects of our sociotechnical life, but the questions of which ways are more desirable than other continues open.

¹⁶ Available in: <http://www.international-alert.org/publications/270.php> (10/05/07).

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A consideration of the conflicts includes the encompassing of different attitudes and behaviours previous to negotiate interests (explicit or not) and goals for any energetic intervention.

This assumption does not exclude the ideologies, beliefs and values recognized in heterogeneous engineers (Latour 2005). These constitutive aspects are not fixed or given *a priori* to agencies. It means the framing processes (Snow and Benford 2000) can change not only in narrative and discursive ways but also in practice, particularly by that related to technological energy.

References

- Bárcena, Iñaki, Ibarra, Pedro and Subiaga, Mario (1995), *Nationalism y Ecologies. Conflicto e Institucionalización en el Movimiento Ecologista Vasco*, Madrid: Los libros de la catarata.
- Bárcena, Iñaki (1995) "La Evolución del Movimiento Ecologista Vasco a través del Espacio Nacionalista" in Bárcena, Iñaki, Ibarra, Pedro and Subiaga, Mario: 13-60.
- Benford, Robert and Snow, David (2000) "Framing Processes and Social Movements: An Overview and Assessment." *Annual Review Sociology* 26: 11-39.
- Bijker, Wiebe (1995) *Of Bicycles, Bakelites, and Bulbs. Towards a Theory of Sociotechnical Change*, Cambridge: MIT Press, 1997.
- Barry, Barnes (2000) *Understanding Agency: Social Theory and Responsible Action*, London and Thousand Oaks C.A.: Sage.
- Estévez, Betty and González, Marta I. (2005) "Participación, comunicación y negociación en conflictos ambientales: energía eólica marina en el Mar de Trafalgar" *Arbor* Sept.-Oct. (715/CLXXXI): 377-392.
- Galtung, Johan (1971) "Peace Thinking" in Lepawski, Albert, Buerhring, Edward, Lasswell, Harold (Eds.) *The Search for World Order*, New York: Meredith:76 -108.
- Ibarra, Pedro, Alberdi, Jokin, de la Peña, Alberto (2002) "Una Reflexión sobre la acción colectiva "NIMBY": el caso Hontza." *Ingurnak* 33: 59-80.
- Ibarra, Pedro (1995) "El Discurso Medioambiental" in Bárcena, Iñaki, Ibarra, Pedro and Subiaga, Mario: 67-111.
- Latour, Bruno (2005) *Reassembling the Social. An Introduction to Actor-Network-Theory*, Oxford: Oxford University Press.
- Latour, Bruno (1992) "Where are the Missing Masses? The Sociology of a Few Mundane Artifacts" in Bijker Wiebe and Law, John *Shaping Technology/Building Society: Studies in Sociotechnical Change*, USA: MIT Press: 225-258.
- Latour, Bruno (1987) *Science In Action: How to Follow Scientists and Engineers Through Society*, Cambridge, Mass.: Harvard University Press, 1994.
- Larrinaga, Josu (2004) "Nimby Power: El referéndum sobre la Central Térmica de Amorebieta y la Potencia de la Negación" in Encina, Javier and Bárcena, Iñaki (2004) *Democracia Ecológica. Formas y Experiencias de Participación en la Crisis Ambiental*, Sevilla: UNILCO: 217-237.

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- Mitcham, Carl (1994) *Thinking through Technology: The Path between Engineering and Philosophy*, Chicago: University of Chicago Press.
- Smith, Adrian (2005) "The Environment Movement and its Enthusiasm and Resistance to Technology", Paper presented at the International Conference Technology: Between Enthusiasm and Resistance, 10-11th may, University of Jyväskylä, Finland, May 10-11, Available at: <http://www.jyu.fi/yhtfil/teer2005/abstract/smith.pdf> (22/02/07).
- Snow, David A., E. Burke Rochford, Steven K. Worden, and Robert D. Benford (1986) "Frame Alignment Processes, Micromobilization, and Movement Participation", *American Sociological Review* 51(4): 464-481.
- Summerton, Jane (1994) *Changing Large Technical Systems*, Boulder, San Francisco, Oxford: Westview Press.
- Summerton, Jane (1992) *District Heating Comes to Town. The Social Shaping of an Energy System*, Department of Technology and Social Change: University of Linköping.
- Tarrow, Sydney (1992) "Mentalities, political cultures, and collective action frames: constructing meaning through action" in Morris, A.D. y Muller, CM (Eds.) (1992) *Frontiers in Social Movement Theory*, New Haven, C.T.: Yale University Press: 174-202.