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by

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ABSTRACT

Pressure to restart nuclear power has mounted as Italy has become the world's largest electricity importer. The Italian environmental movement campaigned against nuclear power during the 1980s, culminating in a 1987 moratorium on nuclear power production. The green movement was partly institutionalised by the Italian state during the 1990s, which contributed to the upholding of the moratorium. Internationally, some environmentalists have recently embraced nuclear power as an environmentally-friendly response to climate change. New nuclear power plants are planned in the USA, UK and 'considered' elsewhere. In Italy, however, the 1980s movement has a durable legacy which maintains opposition to nuclear power without evidence of it being reconsidered due to climate change. But in the general election of April 2008, environmentalists' political influence was reduced and a government promising to reopen nuclear plants was elected. Also, imported nuclear power from foreign joint ventures is now increasing and may provide an alternative to re-starting domestic nuclear generation.

Keywords: nuclear power, energy policy, environmentalism, environmental activists, Italy, climate change.

1. INTRODUCTION

Italy is the only member of the Group of Eight industrialised nations that has stopped producing nuclear power. Italy imports approximately 85 percent of the energy it needs and is the world's largest net importer of electricity. Italians pay the highest priced electricity bills in the EU and recession in 2008 added to pressure on consumers. The problems of Italian dependency on importing electricity were graphically demonstrated by the country's first national blackouts for twenty-one years in June 2003 [1]. Pressures to re-introduce nuclear power increased during the winter 2008-9 squeezing of European gas supplies from Russia when only two months of gas reserves kept Italy from energy shortages.

Although these problems of energy supply have added to calls for re-starting nuclear power in Italy, the debate has also been influenced by wider shifts in the presentation of nuclear energy. Internationally, the issue of climate change has risen on political agendas and the nuclear industry has identified an opening to promote nuclear energy as environmentally-friendly. “As concern over global warming grows, the nuclear industry is stepping up efforts to portray itself as a viable source of clean energy,” Patricia Brett commented in a 2008 report [2]. In the aftermath of the nuclear accidents in 1979 at Three Mile Island in the USA and in 1986 at Chernobyl in Ukraine, many environmental movements opposed nuclear energy. But some prominent environmental figures have recently argued that nuclear power is the greenest form of substantial energy generation. “Nuclear energy has the lowest impact on the environment – air, land, water, and wildlife – of any major energy source,” stated Patrick Moore, the co-founder and former leader of Greenpeace USA, and Christine Todd Whitman, the former Environmental Protection Agency administrator [3]. Several leading environmentalists have voiced their support for nuclear energy as a response to climate change, including *Whole Earth Catalog* founder Stewart Brand, Pulitzer Prize-winning author Jared Diamond and Gaia-theorist James Lovelock [4]. Even Al Gore stated that nuclear should be a “small part” of the climate solution [5]. However, Greenpeace USA remains opposed to building any more nuclear reactors and there are suggestions that the American environmental movement may split [6].

This paper examines whether there is evidence of a significant shift in the Italian environmental movement in light of statements by some leading environmentalists in favour of nuclear energy and the elevation of climate change on political agendas in many European countries and the EU Commission. The paper analyses interviews with Italian environmentalists and secondary sources using sociological social movement theory. Social movements were defined by a leading Italian social movement scholar Mario Diani [7] as networks “of informal interactions, between a plurality of individuals, groups or associations, engaged in a political or cultural conflict, on the basis of a shared collective identity.” ‘Framing’ analysis from social movement theory is applied to consider if the nuclear issue is being re-framed. Erving Goffman [8] defined frames as “schemata of interpretation” that enable individuals “to locate, perceive, identify, and label” occurrences within their lives and the world at large. If framing by claim-makers is to have an impact as a social problem, there needs to be a connection between how they present the issue and audience interpretation, which David Snow et al [9] referred to as “frame alignment.”

One question is whether there is frame alignment between the attitudes of Italian environmental activists and government policy makers. In connection, one should ask how much impact the environmental movement has and has had on government policy makers and public opinion. The historical role of the environmental movement in Italian nuclear policy requires elaboration to appreciate current pressures on government policy makers.

2. THE ITALIAN ENVIRONMENTAL MOVEMENT AND NUCLEAR POWER POLICY

After the 1973 international 'oil shock', Italy faced the problem of having to diversify its energy supply given its limited natural resources. The 1975 national energy plan envisaged expanding the number of nuclear power plants from one functioning plant at Caorso to twenty. Leading Italian environmental associations such as Italia Nostra (Our Italy) and the World Wide Fund For Nature (WWF - Italy) started campaigning against nuclear power plans in 1974. They occasionally co-operated with groups from the left, such as during a 1977 demonstration against the Caorso plant.

Framing analysis can help us appreciate some of the obstacles hindering the environmental movement and its anti-nuclear campaign at this stage. During the 1970s, the Italian environmental movement was divided by "conservation" and "radical" framing of the environment [10]. The conservationist interpretation of environmental problems concentrated on protecting historical buildings, artistic treasures, wildlife or places of natural beauty. In contrast, the radical focus was on urban, industrial and social environmental questions, especially health in workplaces and working-class housing. Moreover, conservationists and radical environmentalists experienced considerable difficulties in aligning how they framed the environment with master frames [11], which are the dominant interpretative frames across society in a specific period. Both the conservation and radical environmental frames were incompatible with the dominant Italian master frames of Marxism and Christian democracy, but had not sufficiently developed to offer alternatives. This severely limited the scope for making the anti-nuclear issue into a national political issue. Most campaigns were confined to a local level and public opinion was largely in favour of nuclear power at this stage [12]. By 1981, the first phase of anti-nuclear protests had died down and the Italian Constitutional Court ruled that a referendum against nuclear energy proposed by Friends of the Earth three years earlier was incompatible with national law and international agreements.

Nevertheless, in the mid-1980s, there was an upturn in anti-nuclear protests due to four factors:

- (i). There was a shift in government policy from civilian to military use of nuclear power with the decision to host cruise missiles.
- (ii). Environmentalism was re-framed and characterised [13] as the frame of "peace and natural equilibrium," creating more scope for co-operation between radical and conservationist environmentalists.
- (iii). When environmental groups united as a social movement through the anti-nuclear issue, they were able to take advantage of wider political frame realignments with the declining legitimacy of Marxist and Christian democratic master frames.
- (iv). Public opinion swung against nuclear power after the Chernobyl accident.

In November 1987, three national referenda on nuclear power were held and the anti-nuclear campaign won all of them. Existing nuclear plants were laid still and the construction of new ones prevented. The rejection of nuclear power by the Italian state was the most graphic indicator of how environmentalism was becoming

institutionalised in Italy. The degree to which environmentalism has become incorporated into the Italian state needs assessing so we can gauge its influence on contemporary policy for nuclear energy.

3. THE PARTIAL INSTITUTIONALISATION OF ENVIRONMENTALISM

Between the mid-1970s and mid-1980s, many environmental laws were enacted in Italy [14] and the Environment Ministry was established in 1986. Environmentalism became a significant force in Italian state institutions and a cultural resource that political parties could draw upon. Political elites understood that it was useful to appropriate environmental agendas to connect with the public [15] and environmentalism was transformed from a counterculture to mainstream discourse [16].

Many Italian environmentalists responded to the institutional incorporation of green policies by adopting a more technocratic outlook, including activism within government, legal institutions and even private enterprises. But groups like Italia Nostra, Legambiente (the Environmental League formed in 1980), Greenpeace and WWF were partly, rather than completely institutionalised [17]. It was only the Green Party that became fully institutionalised, controlling the Environment Ministry from 1996 until 2001 and between April 2006 and April 2008.

Trends towards the institutionalisation of environmentalism in Italy follow an international pattern. The German sociological scholar Klaus Eder [18] established that by 1998 the pervasive impact of environmentalism on Western culture and institutions warranted its status as an international master frame, comparable with master frames such as ‘capitalism,’ ‘communism,’ ‘national identity’ and ‘human rights.’ Similarly, the sociologist Maarten Hajer [19] convincingly demonstrated that numerous international institutions incorporated environmentalism, noting the World Bank’s “ecomodernist stand.” Using environmentalism as a guide to policy provided elites with direction and formidable legitimacy [20].

The momentum behind the institutionalisation of environmentalism and the rise of climate change on political agendas has assisted the trend towards the re-framing of nuclear power as a green source of energy. As examined at the start of this paper, this redefinition of nuclear power has led to many prominent international environmentalists embracing nuclear energy. But how have the opinions of Italian environmentalists on nuclear power changed?

4. CONTEMPORARY ENVIRONMENTALISTS’ ATTITUDES TOWARDS NUCLEAR POWER

The author conducted twenty in-depth interviews with members of environmental associations in Venice [21]. A combination of standardised open-ended and guide approaches to interviewing was used to ask these activists about their roles in the environmental movement. Some interviewees were involved in the campaign against nuclear power through membership of left-wing political parties and are representative of the radical framing of environmentalism explained in section two. Interviews with radical environmentalists revealed how many activists from the left were in favour of nuclear power during the 1970s before the issue was re-framed during the 1980s, as Legambiente’s Flavio Cogo remarked:

I am one of the children of the 80s. I am against nuclear bases. Then there was PD, Proletarian Democracy, and Legambiente. A lot of people who belonged to Legambiente were in the Communist Party beforehand. They had a lot of battles because the Communist Party went into the nuclear power campaign but beforehand they were traditionally for nuclear power and industry.

For Venetian environmentalists from conservationist backgrounds, opposing nuclear power plants went alongside campaigning against industry, such as the chemical refinery in Marghera beside Venice. Michele Boato, the Director of the Eco Istituto and former Green Party Regional Councillor, made this connection when describing his campaigning against nuclear power:

When I was part of 'Smog and Surroundings,' we did our first initiatives against Marghera and nuclear power. Here in the Veneto, we organised and supported a committee in Cavascari because at this time they were thinking about doing 22 central power stations in Italy. In 1978 there was this Minister of Industry, Donat-Cattin, who had this mad plan to build power stations in the base of Venice near Cavascari. We organised some committees and an American expert came from America and spoke about solar alternative energy. Then we followed the nuclear power campaign to do the referendum in 1987.

Prominent Green Party members also recalled their roles in the campaign against nuclear power and continued opposition during their interviews, including the former Green Party Senator Giorgio Sarto and Beppe Caccia, a member of the Green Party national council and former Venice City Councillor. Although many radical activists had been in favour of nuclear energy before the 1980s campaign, none of the interviewees framed nuclear power as positive even though they all identified the greenhouse effect as a significant problem. Instead, the interviews demonstrated that the 1980s campaign has a durable legacy for contemporary environmentalists.

Recent anniversaries linked to the 1980s campaign against nuclear power also suggest it has a legacy that is sustaining opposition to nuclear energy among environmentalists. For the 2006 twenty-year anniversary of the Chernobyl disaster, Greenpeace Italy issued a document offering reminders of the dangers of nuclear power [22]. Throughout Italy, this anniversary became an occasion for exhibitions and demonstrations of opposition to nuclear power with a high profile conference organised in Rome by WWF, Greenpeace and Legambiente. In 2007, the Italian environmental movement celebrated twenty nuclear-free years since the 1987 referenda. Greenpeace organised protests in April 2007 outside the Italian embassies in Slovakia, the Czech Republic, Poland, Hungary and Bulgaria against the former Italian state electricity monopoly ENEL reopening two Slovakian reactors to import nuclear power into Italy. Legambiente published a dossier arguing against the re-introduction of nuclear plants in Italy [23]. Similarly, WWF Italy issued a statement reaffirming its opposition to nuclear power and support for renewable energy [24]. This emphasis on promoting renewable energy instead of nuclear power runs through the literature of Italian environmental associations and indicates they are not re-framing nuclear energy as a green solution to climate change.

Yet it is also important to gauge the attitudes of the Italian public. During the 1980s, the environmental movement had a major influence on public opinion regarding nuclear power as the referenda victories illustrated. But is there still an alignment between the Italian public and environmentalists regarding nuclear power, especially given the perception it can help limit climate warming? According to the Italian Environment Ministry [25], in November 2007 when Italians were asked whether nuclear power should be developed to respond to global warming, 38 percent were in favour and 56 percent were against. However, when asked whether they would agree to a nuclear plant near their place of residence, 25 percent were in favour and 70 percent were against.

This data suggests public opinion on nuclear power plants is influenced by a “not in my backyard” (NIMBY) sentiment expressing territorial concerns in Italy. NIMBY campaigns often represent local inhabitants who want to avoid the construction of a new road or nuclear plant close to their homes. Diani [26] analysed how environmental movement organisations and the Greens developed relationships with numerous NIMBY campaigns that became an integral part of the 1980s environmental movement. This meant many NIMBY campaigns have gone beyond the stereotype identified by Donatella Della Porta and Gianni Piazza [27] as expressing “a conservative behaviour and egotistical resistance to social change.” In a study of eighty-nine campaigns by citizens’ committees in six Italian cities, only a quarter mobilised using a NIMBY discourse of single issues in a restricted territory while the others tended to amplify the territorial and thematic range of their claims [28]. By developing relationships with environmental organisations and broadening their claims beyond territorial concerns, local protest groups have continued to thrive in Italy. During 2008, a NIMBY citizens’ campaign led by Marzia Marzioli challenged the future construction of coal or nuclear plants.

Local protests against energy initiatives have scored some notable victories. In 2003, Rome’s local government decided to abandon plans to store nuclear waste near the town of Scanzano Ionico after vocal local demonstrations. Similarly, local authorities vetoed the building of a regasification plant in Brindisi after protests, even though it had central government backing. “The problem is that even if public opinion was 99.9 percent in favour...the remaining 0.1 percent, the local people, would oppose a site – and the government would not have the forces to impose the decision, nothing will be done,” Alessandro Clerici, head of the working group on nuclear energy at the World Energy Council, remarked about Italy [29].

Although survey data shows that a significant section of the Italian public are open to nuclear power as a response to climate change, environmentalists have helped to transform many NIMBY campaigns opposing various projects linked to energy including nuclear power. What implications do these trends have for Italian policy making on nuclear energy?

5. NUCLEAR POWER POLICY MAKING IN ITALY

The Italian energy industry’s response to the moratorium on nuclear power and persistent local protests has been to buy into foreign nuclear power generation. In 1973, ENEL took a 33 percent share in the Super Phoenix reactor in France. An Italian

energy law in 2004 introduced greater freedom for joint ventures with foreign companies owning nuclear power plants and importing from them. In 2006, ENEL bought 66 percent of the Slovakian energy company Slovenske Elektrarne, which operates nuclear reactors. 12.5 percent of Italian electricity came from foreign nuclear sources in 2006.

Imports of nuclear generated electricity increased following ENEL's 2007 purchase of Spanish power company Endesa, which wholly or partly owns six of Spain's nuclear plants. In December 2007, a €2 billion investment was made by ENEL in France's European Pressurised Water reactor (EPR), which should be operational after 2012. ENEL said it would receive 600 megawatts of France's energy capacity in 2008, which is more than 70 percent generated using nuclear power, rising to 1,200 megawatts in 2012. This agreement also gave Electricité de France (EDF) an option on participating in the future construction of nuclear plants in Italy by ENEL. In 2008, EDF and various Italian utilities planned a feasibility study for three or four nuclear plants in Italy.

Before April 2008, re-introducing nuclear plants in Italy was blocked by the government that had been in power since April 2006. This was a consequence of the partial institutionalisation of environmentalism and was reinforced by the inclusion of the Green Party in this government with its leader Alfonso Pecoraro Scanio as Environment Minister. But the fall of this government and the election in April 2008 of a government led by Silvio Berlusconi led to political re-alignments marginalising the Green Party. The election eliminated the Green Party from government and even Parliament, giving Berlusconi the opportunity to fulfil promises made when he was previously prime minister in 2005 to re-start nuclear energy production.

Following Berlusconi's re-election in 2008, his Minister of Economic Development, Claudio Scajola, pledged to resume building nuclear power plants within five years, which was called "a declaration of war" by the Italy Greenpeace Director Giuseppe Onufrio [30]. On 20 September 2008, Berlusconi promised that his government would produce definitive plans for nuclear energy by Spring 2009, as well as developing renewable energy. This suggests that this government may be aiming to reduce political opposition to nuclear power and build on the partial institutionalisation of environmentalism by re-framing nuclear energy as part of a green energy strategy. In July 2008, Scajola identified Italy's energy objective as sourcing 50 percent of its electricity from oil and gas, 25 percent from renewables and 25 percent from nuclear, but Stefano Ciafani of Legambiente criticised Italy's energy plants for failing to meet cuts in greenhouse gas emission targets [31]. So political opposition to the government's energy plans seems to be strong within the environmental movement, despite attempts to frame these policies as green. But what about parliamentary political opposition?

Berlusconi's parliamentary majority is smaller than when he was last prime minister and did not introduce nuclear legislation. Industry analysts have emphasised the need for cross-party support to make a sustained nuclear program possible. "A plan to develop nuclear power in Italy should be bipartisan...otherwise one government decides to do it, and then comes a new government and says 'No, we won't do it,'" commented Clerici [32]. The leading opposition centre-left Democratic Party (DP), is

against re-opening nuclear plants, but has distanced itself from NIMBYs and the Green Party. The DP did not include the Green Party in its coalition campaign for the 2008 general election, despite working together as part of the previous coalition government. “No to NIMBYs” was an election slogan of the DP [33]. Although the DP is maintaining its opposition to nuclear power, DP national executive member Roberto Della Seta stated [34] that it should not be considered a “taboo subject,” indicating the DP could be open to debating the issue in the future. Nevertheless, in another public statement about energy policy, Della Seta prioritised renewable wind and solar energy, criticising nuclear power for its costs and security risks.

A sustained nuclear industry in Italy will depend on the determination of Berlusconi’s government, but also support from opposition political parties. Although the Green Party and the environmental movement are much more politically marginalised than during the last government administration, support from the DP will require a more significant shift within the party than has been evident to date. But, as Berlusconi stated on 10 September 2008, the re-introduction of nuclear power in Italy will also depend on international co-operation.

6. INTERNATIONAL CONSIDERATIONS

European opinion on nuclear power is more favourable following the UK government’s January 2008 Nuclear White Paper to replace ageing reactors. “Britain will be the first European country after Finland and France to build new reactors, at a time when Belgium and Spain are revisiting their positions on whether to keep a moratorium on new nuclear facilities,” stated Colette Lewiner, who monitors energy for the Capgemini consultancy in Paris [35]. The last German government agreed to abide by the 1999 government’s commitment to close all seventeen of the country’s nuclear reactors by 2021, although a reversal of this agreement was debated towards the end of 2008. Following the 2008 cuts in gas supply due to the squabble between Russia and Ukraine, Slovakia and Bulgaria announced they may re-open Soviet-era nuclear plants. In January 2009, the Czech Republic planned to expand its use of nuclear energy after a policy turnaround by the Green Party-ruled Environment Ministry.

India, China, Russia, Japan, South Korea and the USA have made commitments to build new nuclear reactors. However, increasing demand for new nuclear reactors has added to resource difficulties as nuclear power is predicted to rise from generating 16 percent of global electricity to 22 percent by 2050, according to the OECD Nuclear Energy Agency [36]. Specifically, the giant steel pressure vessels in the EPR reactors under construction in Finland and France can only be built at two factories in the world, which were reported to be taking orders in 2008 for delivery in seven or eight years time [37]. The scarce building of nuclear reactors over the last twenty years has led to a dearth of engineers and expertise. Although political enthusiasm for nuclear power has increased, the industry faces practical difficulties in meeting greater demand. “It’s more political rhetoric than anything that’s actually been translated into building real reactors,” declared Dr. Anthony Froggatt, an energy analyst at the UK’s Chatham House [38].

The international balance of opinion has swung in favour of nuclear power with the

institutionalisation of environmentalism and the elevation of climate change on political agendas. “Nuclear energy can make a major contribution to this battle with climate change,” remarked José Manuel Barroso, the EC President in May 2008 [39]. Although such statements may make Italian politicians and the public more receptive to reopening nuclear plants, increased international demand and insufficient practical expertise could restrict plant construction. Despite these practical difficulties, ENEL CEO Fulvio Conti stated in April 2008 that Italy could build a nuclear plant in seven years if it is constructed on a site previously destined for such purposes. But the development of the nuclear industry in Italy will be heavily dependent on expertise from other countries, especially France.

6. CONCLUSION

Italian environmentalists have been able to maintain the moratorium on domestic nuclear power generation since 1987, assisted by the partial institutionalisation of environmentalism by the Italian state. Within the Italian environmental movement, the historical legacy of the 1980s campaign still outweighs recent pressures to embrace nuclear power in response to climate change, as advocated internationally by some leading environmentalists. Italian environmentalists are continuing to frame ‘environment’ in a manner that includes opposition to nuclear energy. However, the ousting of the Green Party from government and Parliament and political realignments after the April 2008 general election created an opportunity for policy change. Survey data indicates that the Italian public are more open to nuclear energy to reduce climate warming than the Italian environmentalists interviewed. But the historical legacy of the environmental movement and its impact on Italian public opinion cannot presently be ignored, especially regarding the cultivation of local protests. Overcoming this historical legacy will require determination from the government led by Prime Minister Berlusconi, who did not force a change in nuclear policy when he was last in power despite enjoying a much larger parliamentary majority. But recession in 2008 added to pressure on Italian consumers paying pricey electricity bills and the 2008-9 squeezing of gas supplies from Russia stretched Italian energy reserves. If Berlusconi attempts to re-frame nuclear power as green energy, he may yet be able to build on the partial institutionalisation of environmentalism by the Italian state. On the other hand, the prominent role of Berlusconi’s government in achieving concessions in the December 2008 EU package to fight climate change could indicate this government will challenge the currently marginalised green movement. In addition, Berlusconi faces less formidable opposition from the centre-left on nuclear power than in the past and international opinion is generally favourable. More joint ventures with neighbouring countries to import power from nuclear sources are planned. This option may even serve as an alternative to domestic nuclear plant construction given the strength of local protests, continued rejection by environmentalists, risk fears, practical difficulties and if the new government backs down in the face of political opposition.

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