



Just Transition Platform – Project fiche:

FUTUR-E

This document is part of a series presenting information and lessons learned on policy approaches at national, regional or local level supporting a just transition to a climate-neutral economy. The Just Transition Platform (JTP) assists EU Member States and regions to unlock the support in this transition. Visit the JTP website: Visit the JTP website: https://ec.europa.eu/regional_policy/funding/just-transition-fund/just-transition-platform_en

Member State:

Italy

Region:

N/A

Sector:

Electricity sector

Total project budget (€):

Confidential

Financing conditions (co-financing rate):

Confidential

Sources of funding:

EU funding: N/A

National funding:

Confidential

Regional funding:

In some cases, but no precise indication main financing from within company or private investors

Duration:

End of 2015-2040 (planned)

Responsible Managing Authority/Agency:

Enel S.p.A

Summary

The Futur-e project that Enel has started in Italy is a model of the circular economy for power plants that Enel is planning to shut down. It is considered a development opportunity for the areas where the 23 power plants and mining areas are located, which are no longer in use. Thanks to this openness and collaboration process with the local stakeholders, some of these spaces have maintained their industrial purpose, and others have found a second life as museums, and recreational and cultural centres.

The project is undertaken through international competitions, laboratories and worktables including local stakeholders and communities. It is part of ENEL's new 'Open Power' philosophy, aiming at openness and

collaboration with the outside world. The array of proposed projects is broad, from shopping malls and leisure centres, to economic facilities and technology hubs.

There is a special commitment to the areas surrounding the thermal power plants that are closing down, to mitigate the consequences that this change of model could have in the economic, environmental, and social sphere.

Type of activities:

The project aims to reuse existing power plant structures as much as possible while avoiding the cost and waste of major demolition. The main activities are to rethink and assess the use of old non-renewable plants in places and structures that increase the community value within local communities. The array of proposed projects is broad from shopping malls and leisure centres, to economic facilities, and technology hubs. The activities consist mainly of a shared-value approach to find the most innovative and sustainable solutions for the decommissioning of these power plants, and at the same time strengthen relations between the company and communities. The selection criteria for the projects are technical and economic quality, level of innovation and environmental, economic and social sustainability, with particular attention to safeguarding the levels of employment and the best possible reuse. The common element to the projects presented is the desire to valorise the area and part of the existing structures by giving them completely new functions in the spirit of sustainability. The future of the site of the plant may therefore develop into sectors such as tourism, agrifood and fishing, with ideas aimed at creating value for the local area hosting the plan.

The Futur-e plans are organised into four areas: 1) proactive job search for affected staff; 2) promotion of economic activities and employment in the area; 3) education and training; 4) and municipal sustainability.

Goals and approach:

Futur-e aims to find the most innovative and sustainable solutions for the decommissioning of the power plants. The project also aims to strengthen relations between the company and communities based on the criteria of social, environmental and economic sustainability. This will serve to create shared-value with the community and the surroundings of these industrial spaces. The 'shared-value' approach used, which is based on close analysis of the context and on the direct and proactive involvement of local communities, is the key to the initiative. The dialogue that started with local communities and institutions to transform the plants takes many forms: competitions, ideas contests and working groups. Subsequently, a project competition tender is launched in which participants are asked to propose a winning idea, accompanied by a full-blown project proposal complete with a business plan and an assessment of the expected social impact (in terms of jobs and related activities in the territory). The project proposals are evaluated by a judging panel including local institutions (regional and municipal), in conjunction with the local university and the Polytechnic of Milan, Enel's technical partner in the Futur-e project. The technical evaluation considers the suitability of the proposals based on the quality and innovation parameters of each one, as well as their application of the concepts of the circular economy and their environmental, economic and social sustainability.

Important outputs, results or achievements:

Currently the Futur-e project is planning to repurpose 40 plants until 2027 in almost every country Enel has thermal power plants. Broadly speaking the outputs of Futur-e are locally specific projects adapted to regional characteristics and interests of local stakeholders, living close to the repurposed power plants. Just Transition within the smaller region affected by the repurposing of the power plants are considered as small achievements. One main result is the approach applied to repurpose the powerplants, the horizontal approach and the creation of new opportunities for the community, which can be easily transferred to other regions and has been useful in creating a new life for powerplants

and the regions. Main achievements are the repurposing of industrial areas that were abandoned and could be repurposed for different projects such as innovation hubs or tourist villages. Furthermore, the main results are that the concepts are already in place for at least 24 plants in Italy. For four plants in Spain, the plans of repurposing are ready to be implemented and are waiting for authorisation from local authorities. For each of the plants project, local conditions and attributes strictly related to the region's characteristics and local stakeholders' interest apply.

Scalability¹ and transferability²:

In terms of scalability, the project is already conducted at national level globally including projects in Italy, Spain, and South America.

The Futur-e project can also be transferable to other countries because it is applicable in all those situations where there is a problem of unused assets, including in other industries. The project could in theory be transferred into other countries and could be adopted for other companies in the energy sector. What is also apparently replicable is the process that has been developed by Enel to manage the redevelopment – the main stages of which are described below.

An example could be the coal-fired plant in Andorra, Teruel (Spain) (Sustainability Report 2020). The Futur-e initiative was started in 2015 in Italy, with the purpose of giving new life to the power plants being closed (for a total of 13 GW). The approach, which proved to be successful, was therefore extended to the entire group and will concern a portfolio of more than 40 sites on a global level, including Italy, Spain and South America. It is planned to start the transition plans in Russia in the near future.

¹ Scalability entails that a policy approach can be adapted to a bigger scale than just the local context.

² Transferability entails that a policy approach can be applicable to a similar setting and replicated.

Key success factors and lessons learnt:

One key success factor of the Futur-e project is communication. The communication between the company and the local stakeholders and institutions was crucial for the success and implementation of repurposing the old powerplants. Furthermore, the presence of a solid system of industrial relations, with strong collaboration with unions, historically non-conflictual relations between the parties and an elevated propensity to seek negotiated solutions, is fundamental to the success of the agreements on redevelopment and restructuring of the plants. To be successful in communication, transparency and anticipating the overall transition is key to success. These aspects must be considered from the perspective of the replicability of the experiences of Enel in other contexts and the feasibility to export such practices has to take into account local specificities. Secondly, the technical and financial capability of Enel S.p.A itself is seen as one of the key success factors. The opportunity to repurpose 40 power plants is the basis to implement the project with such a large-scale perspective.

Key challenges:

One of the key challenges the project is facing is hearing out all local stakeholders. Because of its open table horizontal approach, the project is faced with different interests and different levels of awareness for the transition within the energy sector. Having a large capacity of technological and financial opportunities is often not enough without the local stakeholders' support. Furthermore, economic feasibility is one of the most significant challenges for the project. An additional challenge is to attract a wide range of strong investors for repurposing the power plants sites. This challenge arises mainly from the uncertainty about the success of economic reorientation efforts or bureaucratic delays. Consequently, potential investors, especially foreign investors, are discouraged to invest due to extended waiting times to obtain permissions.

Additionally, indirect socio-economic impacts can still occur. Despite efforts from Enel and trade unions to prevent negative economic impacts, some plant closures created challenges for local economies that were indirectly dependent on the plant or its workers. Coordination with public policy efforts can be improved. The success of the redevelopment of entire regions in Italy requires national planning and coordination. Considering that the number of sites to be redeveloped will grow in Italy and abroad, there is a need to attract a wide range of strong investors and developers, including foreign investors.

Tools for supporting economic diversification and reskilling/upskilling via projects:

- supporting firms to become more innovative and adjust from 'traditional sectors' to new technologies
- supporting vulnerable workers during the period of industrial transition
- providing workforce and start-up with training and upskilling programmes
- encouraging knowledge exchange and cooperation between larger and smaller firms
- ensuring well targeted financing and investment
- building private and public sector capabilities for innovation
- capitalising on unique regional strengths for innovation
- supporting green skills and jobs through training and upskilling

Central framework conditions³:

The framework conditions in which Futur-e operates are the conditions planned within the net-zero commitment of Enel SpA. The goal is to achieve full decarbonisation by 2040. The closure of all coal plants, initially planned for 2030, will be completed three years earlier than expected in 2027. Within this framework Futur-e is promoting various initiatives to have a positive impact on the local communities from a social, environmental and economic point of view. For each of the plants project, local conditions and attributes strictly related to the regions' characteristics and local stakeholders' interest apply. The first priority in repurposing the plants is to reuse them as part

of the new transition that Enel is undergoing, i.e. to use the space of the plants for renewable energy or to repurpose the building as storage for renewable energy. If the first priority is not feasible then the second priority is to repurpose the plant into something new such as an innovation hub, touristic location or logistic facility and facilitate the transition of the plants involving local stakeholders.

³ Framework conditions encompass the institutional, informational and socio-economic factors that determine a given environment (contextual information), e.g. market conditions, access to finance, tax regulation, infrastructure and support.

Outlook:

Futur-e's main goal is to contribute to the carbon net-zero target of Enel S.p.A. Therefore, the Futur-e project will continue at least until 2040. After Futur-e reaches the goal to have repurposed the planned 40 coal thermal powered power plants by 2027, the transition for oil and gas thermal powered plants will begin. Thus, more projects

will start in repurposing these power plants. Futur-e is planned as a long-term project in the energy-sector. One could even think that after 2040, Futur-e will provide plans and projects to repurpose wind or photo-voltaic plants and contribute to a process of recycling and upcycling.

Partners & contacts:

- Enel Energia S.p.A
- Endesa S.A.

Website:

<https://corporate.enel.it/en/futur-e>

<https://www.endesa.com/en/projects/all-projects/energy-transition/futur-e>

Sources:

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Manuscript completed in July 2022

Luxembourg: Publications Office of the European Union, 2024

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Print ISBN 978-92-68-16773-1 doi:10.2776/21713 KN-09-24-385-EN-C
PDF ISBN 978-92-68-16774-8 doi:10.2776/11947 KN-09-24-385-EN-N

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