

I progetti a partecipazione ENEA finanziati dalla UE

RESLAG

Turning waste from steel industry into a valuable low cost feedstock for
energy intensive industry

Dati progetto

Coordinatore:

CENTRO DE INVESTIGACION COOPERATIVA DE ENERGIAS ALTERNATIVAS FUNDACION - Spagna

Responsabile ENEA:

GAGGIOLI WALTER DTE-STT-ITES

Sito WEB:

<http://www.reslag.eu/>

Descrizione:

The RESLAG project proposal is aligned with the challenges outlined in the call WASTE-1-2014: Moving towards a circular economy through industrial symbiosis.

In 2010, the European steel industry generated, as waste, about 21.8 Mt of steel slag. The 76 % of the slag was recycled in applications such as aggregates for construction or road materials, but these sectors were unable to absorb the total amount of produced slag. The remaining 24 % was landfilled (2.9 Mt) or self-stored (2.3 Mt). The landfilled slag represents a severe environmental problem.

The main aim of RESLAG is to prove that there are industrial sectors able to make an effective use of the 2.9 Mt/y of landfilled slag, if properly supported by the right technologies. In making this proof, the RESLAG project will also prove that

there are other very important environmental benefits coming from an "active" use of the slag in industrial processes, as CO₂ saving (up to 9

To achieve this ambitious goal four large-scale demonstrations to recycle steel slag are considered: Extraction of non-ferrous high added metals; TES for heat recovery applications; TES to increase dispatchability of the CSP plant electricity; Production of innovative refractory ceramic compounds.

Overall, the RESLAG project aims at an innovative organizational steel by-products management model able to reach high levels of resource and energy efficiency, which considers a cascade of upgrading processes and a life cycle perspective.

All these demonstrations will be lead by the industries involved in the RESLAG consortium. The RESLAG project is supported by the main organizations representing energy-intensive industries, CSP sector, energy platforms, governments, etc.

Attività svolta da ENEA:

L'ENEA è coinvolta in tutti i Work packages del progetto. In modo particolare nel WP5 'Design and construction of prototypes' e WP 6 'Test and validation of prototypes' che prevedono la progettazione, la costruzione e le successive campagne sperimentali per le prove e la validazione di un prototipo in scala pilota di un serbatoio di accumulo termico per impianti solari che usano Sali fusi come fluido termovettore.

Programma Quadro:

HORIZON 2020

Programma UE:

Climate Action, Environment, Resource Efficiency and Raw Materials

Partner del progetto

	Ruolo	Tipologia	Nome	Nazione
1	---	RIC	VTT TECHNICAL RESEARCH CENTRE OF FINLAND	Finlandia
2	---	IND	RENOTECH OY	Finlandia
3	---	IND	HLG MANAGEMENT	Francia
4	---	RIC	CEA	Francia
5	---	EDU	UNIV. ERLANGEN-NURNBERG	Germania
6	---	RIC	DLR GERMAN CENTER FOR AIR AND SPACE E.V.	Germania
7	---	RIC	FZK FRAUNHOFER-GESELLSCHAFT	Germania
8	---	RIC	ENEA	Italia
9	---	SOC. CONSUL.	LIFE CYCLE ENGINEERING SRL	Italia
10	---	PUB	MASEN - MOROCCAN AGENCY FOR SOLAR ENERGY SA	Marocco
11	---	RIC	IMPERIAL COLLEGE OF SCIENCE, TECHNOLOGY AND MEDICINE	Regno Unito
12	---	Altro	HASTEN VENTURES AIE	Spagna
13	---	IND	NOVARGI INDUSTRIES SL	Spagna
14	---	IND	CASA MARISTAS AZTERLAN	Spagna
15	---	IND	ARCELORMITTAL SESTAO SL	Spagna
16	COORD	RIC	CENTRO DE INVESTIGACION COOPERATIVA DE ENERGIAS ALTERNATIVAS FUNDACION	Spagna
17	---	IND	GENERAL ELECTRIC (SWITZERLAND) GMBH	Svizzera
18	---	IND	ALSTOM (SCHWEIZ) AG	Svizzera
19	---	EDU	ETH - FEDERAL INSTITUTE OF TECHNOLOGY ZURICH	Svizzera

Keyword

Keyword associate al progetto dal database di CORDIS

Industrial aspects

INNOVATION, TECHNOLOGY TRANSFER

SCIENTIFIC RESEARCH

SUSTAINABLE DEVELOPMENT

Altre Keyword non presenti nel database di CORDIS

Circular economy

CSP

Pilot plant

Pilot plant

Recycling

thermal energy storage