



Special Issue
COVID 19 & Energy Transition



A holistic and Scalable Solution for research, innovation and education targeting Energy Transition

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COVID 19 & Energy Transition: Introduction

The sudden COVID19 spread during the last 4 months (February, March, April and May 2020) has overturned our everyday routines, our working schemes and the overall economic and productive system of the majority of the EU countries, as well as of many other countries all over the world.

Overall, the COVID-19 crisis has caused a large decline in economic factors (incomes and unemployment) across all EU, even if the consequences of the pandemic and related lockdowns highlight significant disparities across Member States. The importance of “Energy” for the economic growth, employment and quality of life, especially of the most vulnerable people in society, arouses a few critical questions:



What is the likely **impact** of this event on the Energy sector ?



Can the Energy Transition process become a flywheel to **contribute to the recovery of the economic system** (new market products and services, new working opportunities) and to **trigger a comprehensive societal r-evolution** in terms of **raising awareness and engaging citizen in the big environmental challenges** we are facing (e.g. pollution, wastes, climatic changes) ?



And, lastly, what might be the **concrete contribution that the ASSET Project can offer** to make Energy Transition an opportunity for the post-Covid 19 economic recovery ?

This special issue of the ASSET Newsletter will try to answer to these questions.



What is the likely impact of this event on the Energy sector?

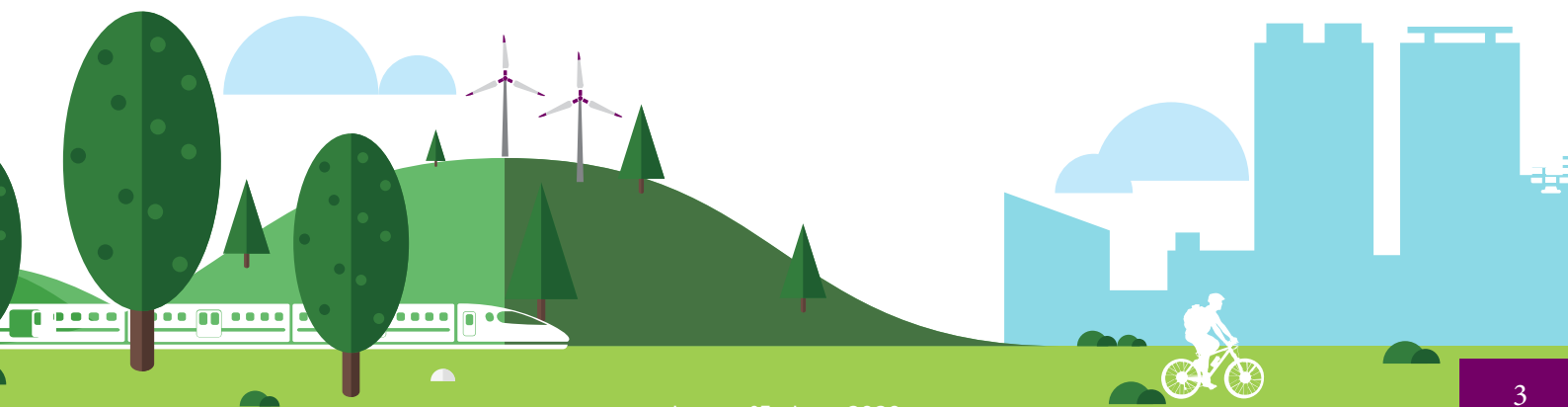
The widespread and simultaneous lockdown put in place by many EU Countries (e.g. Italy, France, Spain) caused a sudden **drop in electricity demand** along with a sharp **reduction of GHG** and of major energy related pollutants emissions. In addition, the blocks of most economic activities and of the international commercial trades (especially energy commodities) put in evidence the strategic value of renewable electricity locally produced. In the meantime, the drop in electricity demand caused, in turn, the **decrease in electricity price**, which surely has an economic impact on existing renewable energy plants revenues, and also raised some questions about the profitability of new RES plants currently under development and on the implementation of some energy efficiency measures.

Additionally, many **authorization procedures**, which were undergoing at the lockdown start, were temporarily suspended and some manufacturing and shipping companies had to stop their activity: all this is delaying the building of new power plants and energy infrastructures.

At this stage, because of the evolving situation, it is quite difficult to quantify the **overall impact of the COVID19 on the energy sector**, and, above all, this task is

clearly out of the scope of ASSET project. Nevertheless, later on we summarise some of the first collected data from qualified sources, which are quite impressive.

The **International Energy Agency (IEA)**, within the recently released the report **"Global Energy review 2020 - The impacts of the Covid-19 crisis on global energy demand and CO2 emissions, April 2020"**, acknowledges that "The drastic curtailment of global economic activity and mobility during the first quarter of 2020 pushed down global energy demand by 3.8% relative to the first



quarter of 2019. If lockdowns last for many months and recoveries are slow across much of the world, as is increasingly likely, annual energy demand will drop by 6% in 2020, wiping off the last five years of demand growth. Such a decline has not been seen for the past 70 years.”.

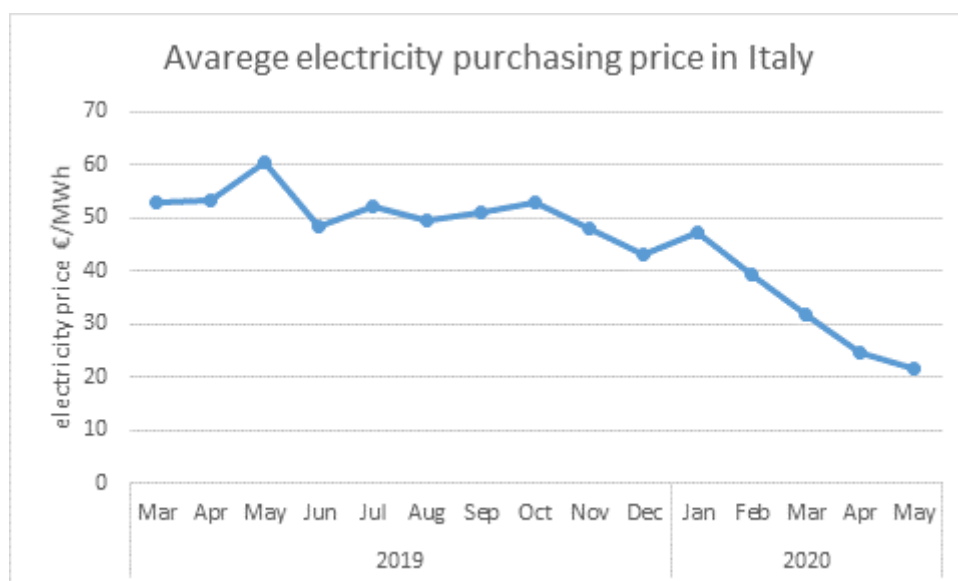
If we look at the situation in **Italy**, which was the first EU country who opted for the complete lockdown, the figures are even more astonishing.

Considering the evolution of the average purchasing price (PUN – National Single Price) in the last 15 months, we can see that, starting from February 2020, it suddenly decreased, in March reached the lowest value ever since April 2016 (beginning of the electricity market pool) and then kept decreasing also in April and May.

The total electricity demand also dropped in March 2020 to 23,7 TWh (-10.2% compared with March 2019). After the closure of several commercial and industrial activities, in the period going from 23rd March to 20th April 2020, the demand has dropped to 19,1 TWh (-20,7% with respect to the equivalent period in 2019). [data: [Elettricità Futura elaborations](#) based on Terna’s data – the Italian TSO).

Besides the direct impacts on the energy sector, the safety and preventive measures put in place in many EU countries (like the complete lockdown) are causing a significant **impact on the overall economic system**.

Many SMEs (especially within sectors like culture, tourism, food services, social services) will not be able to recover the economic losses and will definitely cease their activity, with consequent losses of



numerous jobs and the overall increase in poverty and energy poverty.

Although this situation was probably exceptional, it anyway cleared up the pressing need to accelerate the implementation of the EU's energy policy framework addressed to facilitate the transition away from fossil fuels towards cleaner energy.

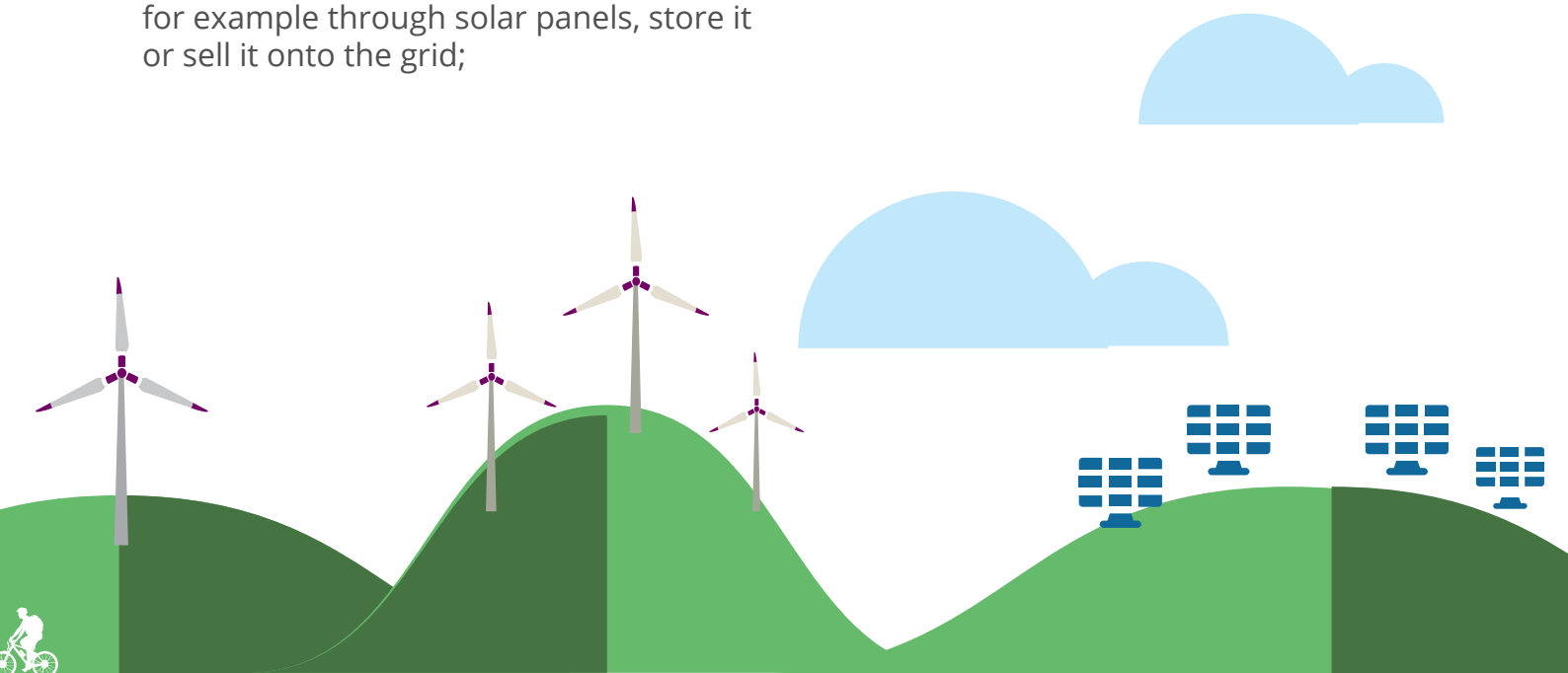
A significant step towards the achievement of this strategic goal is represented by the adoption of the **Winter package**, a set of ambitious new rules, defining the legislative parameters for the coming years. The new rules contain:

- the principle of “energy **efficiency** first”, and set a target to be almost one third more efficient - at least 32.5% - in energy use by 2030;
- an ambitious new target of at least 32% **renewables** by 2030, binding at EU level, which will drive an acceleration of clean energy uptake in all sectors;
- the provision that each country will decide how it contributes to the EU objectives by drafting a **National Energy and Climate Plan** (NECP) for 2021-2030;
- more rights for **consumers**, in particular the new rules will make it easier for individuals to produce their own energy, for example through solar panels, store it or sell it onto the grid;

- the building of a smarter and more efficient **electricity market** ensuring, also through improved cross-border cooperation, the necessary flexibility required by a growing share of renewable energy fed into the grid and a better risks management.

However, achieving the considerable benefits, expected from a consumer, environmental and economic perspective, requires the availability of a **workforce** equipped with the adequate technical and soft skills needed to: a) develop environmentally-friendly technologies; b) support industry to innovate c) roll-out cleaner, cheaper and healthier forms of private and public transport: d) decarbonise the energy sector; e) empower energy consumers (incl. SMEs) whose role should evolve from “consumer” to “prosumer” (i.e. a very active player of tomorrow's energy system).

In that regard, the **ASSET project** represents a useful tool to meet the inter-disciplinary educational needs, including re-skilling e up-skilling of the traditional competences of the workforce, necessary to provide the solutions that take into account the multiple dimensions and the complexity of the energy transition.



Can the Energy Transition process become a flywheel to reboot the economic system and to trigger a comprehensive societal r-evolution?

Today Europe is facing great challenges. The old political powers are collapsing as new powers emerge; economic, climatic and technological changes are shaping societies and lifestyles. In many European regions, this has generated a sense of unease. But, if there is a process capable of developing a positive vision of our continent, it is undoubtedly the **Energy Transition**.

Going back to the global situation and the IEA report, there is a positive note.

The drop in global economic activity cut demand for some energy sources much more than for others. While the global demand for coal, oil and natural gas decreased of some percentage points, **renewable energy demand increased** by about 1.5%, (due to the additional output of new wind and solar projects completed over the past year, good weather conditions, priority in grid access). "As a result, the share of renewables in the electricity generation mix rose considerably, with record-high hourly shares of variable renewables in Belgium, Italy, Germany, Hungary and eastern parts of the US".

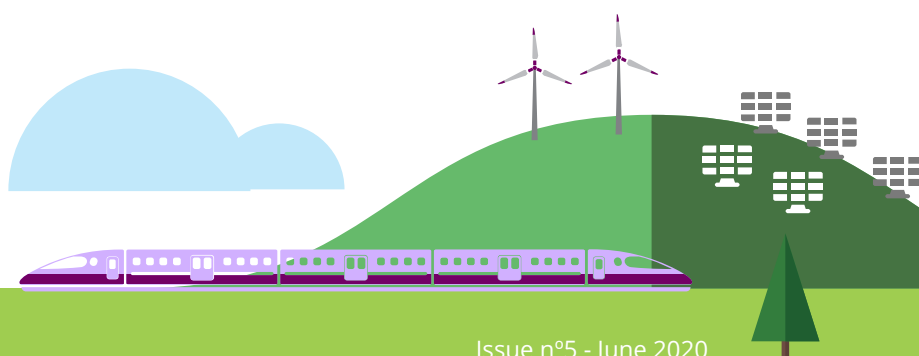
This positive trend should not be misplayed. This worldwide economic and societal crisis committed all us to re-think our development model and social schemes: our primary needs, our way to produce food, our transport means, our way to produce and consume energy.

Many people are now more sensitive to environmental and health issues and policy makers should not lose this occasion to involve citizens in the global energy transition process.

The recently approved European [Green Deal](#) provide a roadmap to make the EU economic system more sustainable, by reducing greenhouse gas emissions, by promoting an efficient use and reuse of resources and by involving all EU citizens.

To comply with it, National Governments should urgently:

-  **establish a clear and stable**, over the medium long term, **regulatory framework**
-  **incentivise investments on energy efficiency & renewables** (decarbonizing projects), by facilitating the access to financing;
-  **foster the establishment and the operation of energy communities**, through a fast and effective implementation of the [EU Directive](#).



The new regulatory framework is required for multiple reasons:

- to ensure a level playing field for all competing energy sources, eliminating the existing economic incentives to the fossil fuels;
- to eliminate existing bottlenecks in the authorisation and constructions procedures for decarbonising projects (i.e. renewables and energy efficiency measures) and to reduce critical issues in the supply chain;
- to provide potential investors and financial institutions with the right framework conditions necessary to make informed investment decisions.

All the above-mentioned measures require the involvement of **new professional profiles**, equipped with specific technical skills, in line with the industry requirements, but also with new soft skills.

An example could be represented by an **energy community facilitators and mediators**, who have the task of promoting and supporting the creation of new energy communities in different social and territorial contexts.

For this purpose, the availability of a qualified offer of educational and vocational training programs is crucial.



Which might be the concrete contribution that the ASSET Project can offer to make Energy Transition an opportunity for the post COVID-19 economic recovery?

A relevant social impact of the COVID19 pandemic is that many people (both students and workers) had to replace their usual working activities, spaces and schedule with a new home-remote-smart working system. This innovative **tele-working mode** requires the acquisition of additional and new skills and get used to a new way of communication, set-up meetings, attend lessons and self-organize time.

Both teachers/trainers and students/attendants are forced to re-think their way to relate with education: on-line webinars and courses, which were an exception for the majority of the people, have turned out to be the new learning standard. This has led individuals and institutions to scramble in selecting digital platforms, addressing privacy concerns, and radically changing pace and learning methods. Also, the demand, search and offer of learning material, in commercial and shareware forms, has soared. Forums of energy transition researchers have distributed offers from individual teachers who are sharing their own previously and newly developed course material, or who are pointing at available learning materials, including online lectures. The benefit to the community of teachers and learners is tremendous, the visibility of the creators a rightful payoff. However, without devoted structures and tools, the **effort of sorting out the contents and making conscious choices** is huge.

With reference to this new emerging learning mode, the ASSET project outcomes can effectively help interested students and employees to find qualified courses; indeed the [learning graphs tool](#) and [marketplace](#) reduce the effort of sorting out the right contents and make easier to access resources needed to acquire knowledge, skills and competences essential for occupations in the agriculture, manufacturing, R&D, administration and services sectors that contribute incisively to the energy transition.

Thus the ASSET project, with its main objective to develop an **online holistic educational offer**, which includes both on-line courses focused on the energy transition and innovative tools to support the community of teachers and learners, can now display all its valuable potential and benefits.

In addition, the ASSET project can help people who are facing the risk to lose their job, due to the unprecedented health and economic crisis. The possibility to **acquire new knowledge and skills in an expanding sector like the green economy** represents a promising chance to find a new job in this area of growing employment.

Lastly, the aftermath of the pandemic is also suggesting the opportunity for the ASSET project to enlarge its educational offer. In particular, the coronavirus pandemic is putting in evidence the relevance for





companies to act quickly in order to build up critical workforce capabilities, that will help employees respond well to changes.

In this case, the skill building should enable the achievement of the following learning outcomes:

1. expand the ability to operate in a fully digital environment: build technical awareness and skills so that employees can fully operate in a remote environment;
2. strengthen social and emotional skills to ensure effective collaboration. Advanced interpersonal skills are essential to ensure that professional relations are maintained strong despite distance. These skills will also be crucial to lead and support employees remotely.

In conclusion, as ASSET partners we are strongly committed to ensure the delivery of all the [educational and training contents](#) which were foreseen at the beginning of the project, but we are as well **available and wishful to receive inputs, suggestions and contributes to extend our educational offer**, in order to meet new needs and requests, which might emerge during this extraordinary situation we are experiencing.

[Join our Community](#): enroll in our courses, upskill yourself, share new learning contents with the other Community members!



About us

ASSET team is a well-balanced consortium, consisting of eleven partners from six European countries.



<http://energytransition.academy/>



Asset Project H2020



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