

ADVANCING ENERGY TRANSITION? COUNT YOUR ASSETS TOO!

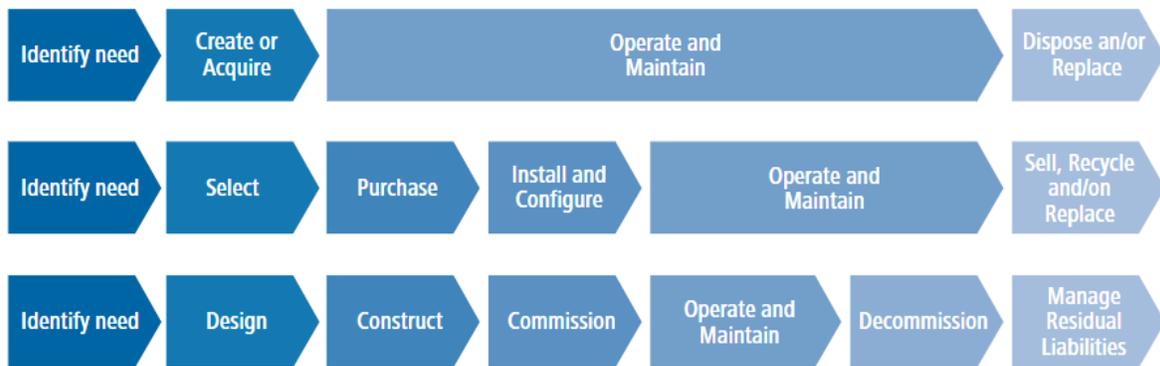
Understanding the underlying role of asset management when planning your energy transition

Today, as the vision of a carbon-free future is becoming more common, each sector is accelerating the energy transition through various strategies. These include deploying new technologies, investing in new infrastructure, revising policies, switching to renewable energy, converting less energy efficient plants to more efficient ones, electrifying transportation, and more.

However, energy transition is not just about phasing out carbon-emitting energy sources and switching to renewable energy or greener fuel sources. Understanding the full life cycle of



assets should be an integral part of this approach. As shown in the figure below, a holistic view of asset management and energy transition is required throughout the life cycle of an asset, from identifying the need for an asset to its operation and disposal phases.



Source: The Institute of Asset Management

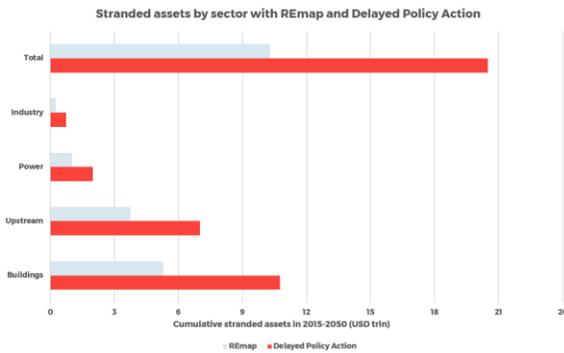
Caveat: There are many variations for the descriptions used for the stages of the life cycle. The naming and number of the stages, and the activities under each stage, can vary in different industry sectors.



It is therefore essential to consider energy transition through the asset management lens. The need for a power plant should trigger the need to think “green” and more environmentally sustainable energy solution, which will lead to rethink the asset design.

A transit agency that commits to using zero-emission vehicles will need to consider how it will operationally be equipped to manage the new changes. Some of the considerations will be performing asset modifications, procurement of new inventory, training staff, safety considerations, new policies and guidelines throughout the implementation and life cycle of assets under consideration. It is no longer just about focusing on the technical aspects of the transition, it’s much more than that!

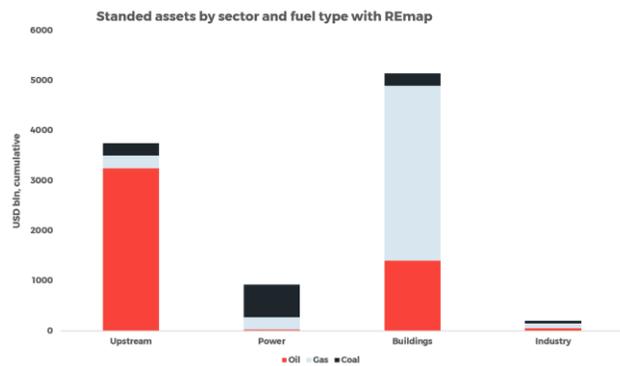
The introduction of new asset classes - for example, in the case of electric vehicles,



charging stations - would introduce new responsibilities. Effective management of these assets require attention in terms of finances and human resources. The challenges arising from this new paradigm shift are causing organizations to rethink the pace of change and influence their implementation decisions. Hence, change management becomes even more critical during this transformation.

In the process of phasing out assets as part of the transition, many assets carry the risk of being abandoned.¹ These may include fossil fuel power plants (to be closed), thermal generators, and even buildings.

The International Renewable Energy Agency (IRENA) estimates that this risk may lead to the abandonment of energy infrastructure assets worth over USD 11 trillion.²



Source: [IRENA – Stranded Assets and Renewables](#)

REmap: The “REmap” case assumes the world takes the path of timely decarbonization as envisioned by Remap which includes a 27% reduction in the primary use of fossil fuels by 2030 and more than a 60% reduction by 2050 compared to 2015 level

People currently using these assets are also affected when they are abandoned. Upstream fossil fuel production and manufacturing are two sectors that are highly likely to be affected in this regard. Planning the asset disposal phase becomes essential to avoid massive job reductions and unemployment caused by abandoned assets, salvaging value out of abandoned assets and the responsible

decommissioning of assets that are no longer needed, including repurposing for other uses.

To make the most of the energy transition, organizations need to understand the full life cycle of an asset and be able to map the driving forces involved and how they affect their operations and the wider communities they serve.

¹ Definition of stranded assets (while there are many definitions available)

² IRENA – Global Energy Transformation



WSP understands this shift and responsibility and strive to guide clients to not only make informed decisions on the technical aspects of the energy transition, but also to help promote a viable and sustainable path forward.

“When it comes to energy transition, we are seeing increasing awareness and support from regulators, financiers, board members and end users of energy. However, much of the conversation is centered around the technology and the “what”, I believe its time these conversations need to include an end-to-end view of the “how”, this is where an approach supported by good Asset Management practices will enable meaningful longer-term outcomes for everybody!” - Nilmino Robert

The International Energy Agency defines stranded assets as “those investments which have already been made but which, at some time prior to the end of their economic life (as assumed at the investment decision point), are no longer able to earn an economic return as a result of changes in the market and regulatory environment brought about by climate policy” (IEA, 2013).

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