

Impact of Covid-19 on power projects

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On the face of it, the power generation sector has remained relatively unscathed by the global coronavirus pandemic – plants continue to generate electricity and the lights remain on. Scratch beneath the surface and you'll find that Covid-19 is having a significant impact, with many projects in development or construction stalled.

We continue to work with our clients to solve immediate challenges, but now is also time for owners to review their plans for the future, and ensure they remain robust. Taking a fresh look is also an opportunity to see whether the plans can be improved, so future assets are more resilient, more efficient and higher performing. Nobody knows how long this crisis will last or the exit strategies different governments will select, so it is important owners build as much flexibility and resilience as possible into their projects.

Here, we review the technical and commercial effects so far of the pandemic on renewable and conventional power projects in Europe, Africa and South America, and suggest how owners might best navigate the months ahead.

Projects in development

Media reports indicate that investors regard power as a secure sector during the current crisis. This view is supported by the steady stream of enquiries we have received from developers and investors still interested in progressing new power generation projects – albeit with a degree of caution.

Our project development activities also continue, even though many of us are working differently. In only a few days, more than 8000 colleagues across Europe made the seamless transition to working from home, so they keep developing designs and negotiating

contracts.

It is more challenging to carry out site investigations and environmental surveys, and we've changed our approach, postponing visits where it is not possible to work safely. We always start by asking whether our physical presence on site is essential at the current time.

Meanwhile, construction ready projects are in limbo and some financial close dates have been pushed back to later in 2020. Disruption to supply chains, and the likelihood that many may take time to recover, coupled with ongoing restrictions on travel have made it difficult for contractors and suppliers to properly price risk, and owners are understandably reluctant to take on the risk.

Projects being built

We have witnessed the biggest impacts during the construction phase.

Lockdowns have affected supply chains, with some slowing and others suffering indefinite delay. The specific issues and magnitude of the impacts differ across projects and technologies. The pandemic has highlighted the downside of producing key equipment in just a few locations. The lockdown in China, which supplies about 80% of the world's PV modules, is hindering solar projects, whereas wind projects have suffered less because supply chains are more geographically diverse.

Local supply chains have also been damaged by Covid-19. Hydropower projects that rely on local suppliers for the vast quantities of concrete and other materials during construction have been unable to keep up with demand due to production being suspended, staff shortages and restrictions on movement.

In many countries, construction continues, with contractors following public health guidelines – such

as social distancing and self-isolation – but progress is inevitably slower.

Our own work has also been affected. In response, we have quickly transferred from on-site to remote monitoring of construction sites. We now review video footage sent from site, request shots of specific work areas based on ongoing activities and interview site staff remotely.

The most severe impacts have been on projects at the commissioning stage. International travel restrictions, which were imposed by many governments during a single weekend in mid-March, has made it almost impossible for specialist overseas engineers to travel to a site, while many of those already on site returned to their home countries. Even where travel remains possible, accommodation is often hard to find.

But the sector is increasingly finding solutions to problems that seemed insurmountable just a few weeks ago. These include using local staff equipped with mobile video cameras, finding alternative equipment suppliers, sharing resources between projects in the same country, identifying and implementing temporary solutions, and taking advantage of targeted exemptions from travel restrictions from governments keen to provide support where practicable.

Operational phase

We have seen little effect on operations so far, though any reduction in demand for energy from customers may result in output being temporarily lowered.

Most modern power projects require limited human intervention to keep equipment running, at least in the short term. This is particularly true of wind and solar PV projects. In conventional power plants, social distancing measures have been implemented by splitting teams into small groups and restricting access to control rooms and other areas where operators normally gather.

Where possible, inspections and maintenance are continuing but non-essential works, particularly those relying on specialist engineers from overseas, have been postponed. Projects with high levels of redundancy and stocks of strategic spare parts are likely to cope better in the medium term.

Flexibility and resilience: An exit strategy

As governments plan to end lockdowns, scientists warn of the risks of a second peak and the need to maintain significant social distancing measures until vaccination programmes can be rolled out. How can power projects survive in this ‘new normal’?

- Flexibility is needed to progress projects. Reliance on one-size-fits-all solutions or just-in-time philosophies may not be as effective as they were in the past. One positive outcome of this crisis may be that a range of new responses are being developed to the challenges the industry face.
- Build resilience into projects to help mitigate the worst impacts. This may mean designing a project with additional redundancy, agreeing support packages with equipment suppliers or increase stocks of critical spare parts where they cannot be sourced locally.
- Owners may need to take a proactive and collaborative approach with contractors and suppliers to protect projects. Measures could include: Amending construction programmes, implementing extra shifts (where permitted by authorities) to lessen the impact of delays, making bespoke changes to contracts or rescheduling milestone payments.
- The importance of due diligence will increase. Questions that may need answering include: Can key equipment be supplied from more than one country? Are there specialist engineers based in country? Do construction programmes consider impromptu travel restrictions? What risk is the owner left holding?
- There is merit in acting fast. When key restrictions are lifted, there could be a huge surge in demand as multiple projects clamour for the same resources at the same time. Early planning is therefore crucial.

