Scottish Hydro Electricity Transmission is making sure they account for social, environmental and economic factors when planning future capex projects.

THE BUSINESS
As one of the three Transmission Electricity Network Owners (TOs) in the UK, and a regulated part of the SSE Group, Scottish Hydro Electric Transmission (SHE Transmission) is obliged by the government to grow the electricity transmission network capacity (‘the grid’) in the north of Scotland, to offer sufficient capacity to electricity generators. In particular, the UK has an ambitious target for carbon reduction which will require greater generation of electricity from low carbon sources.

THE IDEA
SHE Transmission know the perils of not considering sustainability at the inception of a capital investment project. In the past, an estimated 10% – 15% has been added to project costs through delays in obtaining planning consent, which is added to by opposition from varied stakeholders concerned about damage to Scotland’s environment, economy and communities.

In 2010, SHE Transmission started work to upgrade one of the main transmission lines between the towns of Beauly and Denny in the highlands of Scotland. It was one of SHE Transmission’s major capital investment projects, with over £675m of investment between 2010 and 2016.

It was for these reasons that SHE Transmission undertook a retrospective look at the capital investment process involved in the Beauly-Denny project in order to benefit SHE Transmission in future developments, as well as the wider transmission network. The impact evaluation methodology produced is known as the Sustainable Commercial Model (SCM).

THE INNOVATION
In a venture, driven by their Finance Director, SSE wanted to understand better the impacts that capital investment projects have on society and to measure them using a consistent metric. In looking at the Beauly-Denny transmission line this assessment focused on a number of sustainability impacts that were assessed to be most material to the project, including:

- Total economic footprint of the construction expenditure
- Cultural heritage
- Traffic management
- Carbon footprint
- Building waste
- Visual amenity

With support from sustainability consultants, SHE Transmission developed the SCM framework, comprising over a dozen methodologies, to quantify and monetise the above environmental, social and economic impacts ie, the total impact of the Beauly-Denny transmission line. The impact can be identified, measured and financially quantified in a globally recognised currency: ‘£’, where previously expected impacts were submitted using qualitative data. Using this consistent monetary value enables all stakeholders of transmission projects, and the wider community, to review the value created in a transparent and accountable format against an established baseline value.

It is very much about having the knowledge, the right culture and a great finance team – it is about finance professionals who are willing to try and base decisions on this new approach to capex.
FINANCE FUNCTION LEADERSHIP

The finance function was instrumental in the development of the SCM. SSE’s Finance Director, Gregor Alexander, chaired the working groups and set the direction, while George Cobb, Group Sustainability Accountant, provided the knowledge and coordinated activities. As Cobb says ‘it is very much about having the knowledge, the right culture and a great finance team – it is about finance professionals who are willing to try and base decisions on this new approach to capex. It is when you start to take on projects in the real world and you apply the same project managing tools, with regard to sustainability, with the same rigour you do to other projects that they start coming to life. There is a lot of initial conceptualisation, but with the right advisers and the right support you can do that.’

The finance function:

1. Embedded a significant level of rigour into the analysis, with an audit trail of information, which can confirm that a robust process was undertaken. This ensured that key decisions and assumptions were documented and substantiated, creating transparency of results for both internal and external parties.
2. Facilitated the linkage of finance with the wider sustainability community, both internally and externally. This led to greater collaboration.
3. Illustrated to senior management, both within the finance function and in other areas, that a financially sound project can also have the best sustainability outcomes. Steven Kennedy, Finance Director of the transmission division of the business, is now an advocate for the commercial potential for using this approach on new line developments.

It is when you start to take on projects in the real world and you apply the same project managing tools, with regard to sustainability, with the same rigour you do to other projects that they start coming to life. There is a lot of initial conceptualisation, but with the right advisers and the right support you can do that.

POSITIVE LONG-TERM IMPACT

Having a consistent approach to compare different values across multiple factors can give SHE Transmission a far greater understanding of the end to end impacts of a capital investment project. This means different options can be assessed systematically and capital can be allocated to a solution which doesn’t just have the best financial returns, but which also provides societal and environmental benefits.

In addition, as SHE Transmission is a regulated organisation, any building project requires compensation to those effected known as ‘mitigating measures’. Previously, this figure was settled fairly arbitrarily but using the new model, the impacts can be measured and financially quantified giving the compensation figure a better grounding in reality. This means that the public money used for these projects is being spent in on the areas which matter most to communities and the environment.

LESSONS FROM THE CASE STUDY

• Materiality is fundamental to the scope of any project, but particularly projects where there are numerous sustainability impacts. A proper materiality assessment allows project teams to focus on what will ultimately drive the project outputs and demonstrate a greater understanding of the overall business. Anything can be measured, but without the proper context it is only of limited use eg, SHE Transmission were surprised to learn the value the local community placed on visual amenity, a conclusion which would not have been reached without quantifying the different impacts in a complete way.
• By applying the same rigour as other financial aspects, impacts which might be considered intangible can be analysed as with any other consideration.
• Integrating sustainability impacts as a core part of decision making requires a cultural change of minds, so one size will not fit all. The process of undertaking a full sustainability assessment of a project is challenging, but with the correct guidance and scope it can be achieved and will lay the foundation for the next project.

WHAT THE JUDGES SAID

SHE Transmission’s holistic approach to measuring the total social, environmental and economic impacts of major capital projects impressed the judges, along with the visible leadership from both the Finance Director and Group Sustainability Accountant. They were also able to demonstrate how the process had influenced decisions in practice to drive better outcomes for the business, environment and their local communities.