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Network Licensees must publish the required Project Progress information on the Smarter Networks Portal by 31st July 2014 and each year thereafter. The Network Licensee(s) must publish Project Progress information for each NIA Project that has developed new learning in the preceding relevant year.

NIA Project Annual Progress Report Document

Date of Submission

Jun 2022

Project Reference

WPD_NIA_062

Project Progress

Project Title

Approach for Long-term Planning accounting for Carbon Assessment (ALPACA)

Project Reference

WPD_NIA_062

Funding Licensee(s)

WPD - Western Power Distribution (East Midlands) Plc

Project Start Date

January 2022

Project Duration

1 year and 3 months

Nominated Project Contact(s)

Liza Troshka

Scope

Whole life carbon management is widely recognised as a good practice, however, there is currently no industry-wide approach that was tested to be easily scalable in a DNOs context. This project aims to generate carbon management framework and a set of tools to facilitate the integration of whole life carbon assessment into DNOs processes and procedures to drive carbon reduction agenda and ensure compliance with national and company-specific reduction targets.

Objectives

This project will develop a framework/methodology and supporting tools for integration of whole life carbon management and measuring into standard DNO processes and procedures.

Success Criteria

- Whole Life Carbon Management Framework/methodology for application in a power distribution sector is developed and verified.
- Sufficient guidance and methodology is developed for integrating of the framework into business as usual.
- Fully functioning whole life carbon measuring tool is developed and trialled.

Performance Compared to the Original Project Aims, Objectives and Success Criteria

The project commenced on January 11th 2022. Work Package 1 (Literature review) was completed as planned and provided useful

insight on the available information, guidance and legislation surrounding carbon accounting in infrastructure. Specifically, the review covered existing government legislation, regulations and policy; standards and specifications governing carbon accounting and reporting; standard emission factor data sets; and existing whole-life carbon reporting tools that can be used for this project at a later stage. Work Package 2 activities (stakeholder engagement) has commenced and is due to finish in May 2022.

As of end of March 2022 the project is on track to meet its objectives and success criteria.

- Whole Life Carbon Management framework/methodology for application in a power distribution sector is developed and verified - Ongoing
 - Literature review completed.
 - During internal and external stakeholder engagement stage, key touch points for carbon management, with information on the disciplines involved, the data available to them, and the outputs that may be required to support active whole-life carbon management will be established and documented.
 - Procurement plays a key part in facilitation carbon reduction in our activities. Therefore, a sustainable procurement briefing note and a sustainable procurement protocol will be prepared to assist with active carbon management.
- Sufficient guidance and methodology is developed for integrating of the framework into business as usual - Ongoing
 - A suitable whole life carbon management methodology spanning the entire end to end project management process will be specified and agreed.
- Fully functioning whole life carbon measuring tool is developed and trialed - Not Started
 - Once methodology is agreed, a whole-life carbon assessment tool will be developed. The following elements are typically included within the scope of an effective whole-life carbon measurement and assessment: construction, operations and ongoing maintenance. It is expected that the tool will take relevant activity data relating to these elements, then apply suitable emissions factors to generate carbon data.
 - The tool will be tested internally within WPD.

Required Modifications to the Planned Approach During the Course of the Project

During the course of the stakeholder engagement (work package 2) it was observed that individual consultations were more productive than a workshop format. Therefore the majority of consultations were completed on individual basis. This change to the original approach (i.e. workshop format) didn't not affect the overall timescales or budget of the project. The change was managed through WPD Innovation Governance procedures.

Lessons Learnt for Future Projects

Since beginning recently, the following lessons learned have been captured:

- PAS 2080 Carbon Management in Infrastructure appears to be a suitable framework for whole-life carbon management in a DNO context and is aligned with capital carbon assessment approach UK energy transmission has developed.
- Literature review revealed a number of the standard carbon emission factor datasets that can be used to populate carbon accounting tools or a suitable methodology to provide figures on carbon emissions for organisations, products, supply chain and other assets. However, none of them can be used solely and some compilation of available datasets and additional calculations for specific processes, products and assets used within a DNO will be required to ensure accurate calculation of the whole life carbon management tool.
- Three energy transmission companies (NGET, SPEN and SSEN) have formed a collaborative group called UK Reduction of Capital Carbon in Infrastructure: Transmission (ROCCIT) in order to address and manage the capital carbon emissions associated with developing and maintaining of their network. It has been highlighted that the tool developed as part of ALPACA should follow the same principles as the ROCCIT group for consistency.

All key lessons learnt will be captured during the course of the project.

Note: The following sections are only required for those projects which have been completed since 1st April 2013, or since the previous Project Progress information was reported.

The Outcomes of the Project

As of the end of March 2022 a literature review has been delivered and will be shared with other DNOs through ENA channels. Literature review provides useful insight on the available information, guidance and legislation surrounding carbon accounting in infrastructure. The review covered existing government legislation, regulations and policy; standards and specifications governing carbon accounting and

reporting; standard emission factor data sets; and existing whole-life carbon reporting tools that can be used for this project at a later stage.

Key outputs of the project will be available at the later stages.

Data Access

The new data that will be created during the project will include a carbon management framework, whole life carbon management tool and sustainable procurement protocol.

Anonymised data will be available to share in accordance with WPD's data sharing policy

www.westernpower.co.uk/Innovation/Contactus-and-more/Project-Data.aspx

Foreground IPR

Foreground IPR:

- Whole life carbon management framework and supporting documents delivered during the course of the project
- Whole life carbon measuring tool developed during the course of the project