7 AFFORDABLE AND CLEAN ENERGY

CASE STUDY TITLE

Better Biomass: Sustainably Produced Biomass for Energy Applications and Biobased Products

SUMMARY

Better Biomass certification is used by organizations to demonstrate that the biomass they produce, process, trade or use meets broadly accepted international sustainability criteria. These criteria have been established by a multi-stakeholder process with private companies, civil society, government, academia and other interested parties. This process has been open and transparent for all parties concerned. The criteria have been agreed based on consensus.

BACKGROUND

Biomass is being used more and more for the generation of heat and power, the production of fuels or other chemical products, fully or partly replacing fossil-based materials. It is a viable response to global themes like climate change, security of energy supply and transition towards a low-carbon circular (bio-)economy. It is, therefore, important that organizations can demonstrate that their biomass is sustainably sourced and processed throughout the supply chain.

The Better Biomass certificate is used by organizations who wish to demonstrate that the biomass they produce, process, trade and/or use meets well established, global sustainability criteria as well as chain-of-custody requirements. These have been defined by a multi-stakeholder working group, managed by NEN, and have been published in the standards NTA 8080-1 and NTA 8080-2.

Better Biomass is managed by NEN, the Netherlands Standardization Institute. As a member of the European Committee for Standardization (CEN) and ISO, NEN will ensure that the sustainability criteria and conformity assessment processes are and will remain aligned with the relevant European (EN) and international (ISO) standards.

AT A GLANCE

COUNTRY

- Netherlands

LEVEL

- National

SDG ADDRESSED

- SDG 7 - Affordable & Clean Energy

The Better Biomass certification scheme is recognized by the Dutch Accreditation Council (RvA), being a European co-operation for Accreditation (EA) and International Accreditation Forum (IAF) member, and certification audits are carried out by independent certification bodies that are accredited to the Better Biomass certification scheme.

Better Biomass has been operational since 2011 and has been recognized by the European Commission as voluntary scheme to demonstrate compliance with the mandatory sustainability criteria for biofuels and bioliquids as laid down in the Renewable Energy Directive since 2012.

BACKGROUND

Better Biomass was re-recognized in 2018. In November 2018, the Dutch government approved Better Biomass as a voluntary scheme to demonstrate compliance in the framework of the Dutch Decree conformity assessment of solid biomass for energy applications (which is linked to a subsidy scheme to promote renewable energy/CO2 emission savings). This approval is applicable to all five biomass categories that are distinguished and applies for the global use of the 'Better Biomass certified' claim.

STRATEGY

Initially, NTA 8080 was developed intended to be part of a 3-stage approach: the first harmonization at the national level, then at the European level and ultimately at the global level. NEN also took the initiative to establish a European standards committee on this topic; while proposing to develop European standards addressing the three pillars of sustainability, it was the European Commission who voiced the message that the Renewable Energy Directive would be leading (which doesn't cover all sustainability aspects).

At the global level, NTA 8080 has been input in developing ISO 13065, Sustainability criteria for bioenergy. This standard is not designed for certification, while most organizations need certification for their license to operate. From a standardization perspective, the intent remains to develop a global, harmonized set of sustainability criteria for biomass to create a level playing field and increase the trade/interchangeability of biobased materials across sectors (e.g., food, feed, chemistry, energy) responding to demand and supply.

RESULTS & IMPACT

To date, about 120 companies are Better Biomass certified. Most companies use (locally sourced) biobased residues and waste for collecting, processing, trading and/or valorizing these materials into bioenergy. Better Biomass is mainly used for woody biomass (e.g., wood chips and wood pellets production and valorization) and biogas/biomethane (e.g., digestion). Several companies use their Better Biomass certification to demonstrate compliance with legal sustainability requirements. The number of certificate holders is increasing steadily.

CHALLENGES & LESSONS LEARNED

Over the past decades, various certification schemes have been developed in the field of sustainable biomass. These schemes can be globally applicable to all types of biomass (like Better Biomass), can be commodity-specific, sector-specific or region-specific. Moreover, every scheme has defined its own requirements related to sustainability, chain of custody and governance, which makes mutual recognition of certificates more complex.

CHALLENGES & LESSONS LEARNED

In addition, it is not helpful that governments set their own (additional) legal sustainability requirements, which creates barriers for cross-border trading.

The recognition of Better Biomass by the European Commission was a long-lasting process ('black box'). One of the difficulties was that Better Biomass is not only designed for biofuels and bioliquids (scope of Renewable Energy Directive) but also for solid and gaseous biomass and for biobased products and that contains additional sustainability requirements. This required a lot of 'education' of the assessors of the scheme. Due to this long-lasting process, other competing schemes could gain market share, so that Better Biomass should focus on other (niche) markets.

POTENTIAL FOR REPLICATION

Better Biomass is designed to be globally applicable. As explained under 'strategy' the ultimate aim is to develop one global (ISO) standard with sustainability and chain-of-custody requirements for biomass irrespective application. This can be a key game changer to accelerate the transition towards a (lower carbon) bio-based (circular) economy.

CASE STUDY DEVELOPED BY:
Jarno Dakhorst
Better Biomass Scheme Manager
Netherlands Standardization Institute (NEN)