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Experience

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| <i>About the feedstock, processing & conversion</i> | <p>IINAS accounts with experience regarding grasses in landscape protected areas and woody biomass from hedges.</p> <p>For grasses the most reasonable pathway is biogas production whenever there is an already existent biogas plant in the surrounding area. For the woody biomass, the most feasible path is to undergo a chipping and use it for combustion but the proportion of bark is quite high in this feedstock which might cause slugging problems if it is not used mixed with other material.</p> <p>Each state in Germany has his own administration and designs a public company which operates in the protected areas to carry out the maintenance work including, among their duties is included the contact, if it is the case, with third parties to find a final use for the biomass extracted.</p> <p>Each protected area has a different management.</p> |
| <i>Policies, finance tools and legal regulations</i> | <p>The National Federal laws include regulations regarding the National Protection Areas including the status in which the protected areas need to be maintained but it does not determine what to do with the biomass obtained from the maintenance works. Therefore when there is an excess of biomass according to the natural status in which the protected areas should be maintain (defined by the regulations) maintenance works will be performed to extract the surplus of biomass.</p> <p>The products obtained are not recognized as a waste, only if there are processed, which makes it quite challenging. This LCMW biomass is not mentioned on the waste management European regulations.</p> <p>Maintenance operation and work carried out in the public and environmental interest are financed by the State administration.</p> <p>The final use of this type of feedstock for energy generation is only funded in case it is used for biogas production. In case it is used in a combustion process it necessarily will be in large scale plants in which case maybe through the CO₂ emission trade schemes it could therefore obtain a certificate and get the corresponding retribution for using this type of feedstock but the retribution is due to the CO₂ emission saving and not specifically due to the type of biomass used.</p> |



Waste Management Concept or a Waste management program does not apply. Only if the municipality accounts with green areas the municipal administration is the operators in charge of the management of this green areas so they have to include this feedstock in the waste management plans of the municipality since the areas are located in the municipality.

Difficulties & barriers

It is quite tricky to establish a chain for this type of biomass due to the low frequency of the collection (many times the maintenance works are performed every 2-3 years) and its rather low density which makes difficult to maintain a supply chain based on a feedstock with such characteristics. The quality of the material is neither very high.

Potential drivers & recommendations

Public support & good governance

As previously mentioned, the Renewable Electricity Law establishes a preference tariff if biogas is produced from this type of feedstocks, so the revenue obtained is higher. If combustion is the pathway selected, it needs to be burnt in large installations because it is not allowed to burn it on small scale combustion plants.

There are no real environmental threats connecting to the processing of these feedstocks. But during the combustion the particles emission and high content in chloride might cause some problem so the combustion system need to be prepared to face these limitations and fulfill the existent restrictions established in the corresponding regulation regarding this parameters. This is one of the reasons why if there is a biogas plant in the surrounding area biogas production is the most adequate pathway for this type of feedstock (grasses). The woody type can only be used in Germany in large scale co-firing plants due to the high content of ash. In Germany the use of this type of feedstock for biogas production if funded so the use as additional raw material in the process can be interesting for an existing plant.

Acceptance problems could happen regarding the transport of the biomass if the neighbors have to keep up with a large amount of trucks operating and there are not used to it.

The protection areas program establishes the amount of biomass that can be extracted so that the sustainability issues are covered in principle.

Public acceptance regarding harvesting, processing & conversion

There are sustainability schemes for biomass which acknowledge some feedstocks to be residues/wastes. There are certification systems for biofuels which establish the different requirements to be fulfilled according to their quality but not aware if there is anybody currently doing this for LCMW biomass because there is no market for it.

Good practices of cooperation & participation

Regarding the transport, this inconvenient previously mentioned is rather theoretical. Protected areas are typically quite remote so the density of people is low and it would not be a major problem.

Good governance mechanisms

It makes no sense to build a new biogas plant based on this type of feedstock, it makes sense when there is already an existing plant that can use it as additional feedstock for the biogas production. In this sense since it is already funded no further actions are required.

Regarding the co-firing, no incentive schemes are in place currently, but it would not be possible because it is not included under the Renewable Electricity Law.

What could be done is to increase the support for infrastructure investment for transport.

Related to the feed-in-tariff law there might be some changes in the short term to make it more market based. If this change would be finally implemented this will lead to specific requirements for this problematic feedstock material which will make more difficult to implement a feasible supply chain for this type of biomass.

Renewable energy policy is going to favor the use of waste and residues but it depends on the future of the feed-in-tariff system. If the policy changes to more market based it is doubtful that a feasible chain could be implemented for this type of biomass.

There are no obligations related to LCMW biomass regarding the public acceptance.

Wider insight

The biomass obtained from the maintenance works could be sold but he is not aware if this is currently happening. The main burden is to extract it. Nowadays there is not market for this type of feedstock.

Governance and public acceptance measures are basically already implemented.

If there is a biogas plant or cofiring plant already existing in the area they can use this type of feedstock.

Contact information

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