

BIOMASS FOR BIOENERGY

Community Engagement Factsheet

What is community engagement?

This factsheet examines the key elements for community engagement to assist in developing a successful bioenergy project, one that is understood, accepted and supported by the larger community. The factsheet is intended for policy makers, developers, landholders and other stakeholders.

Community engagement is important for bioenergy project initiatives, since bioenergy projects have social impacts. Social impacts can change for instance people's way of life, their health and wellbeing, or their access to infrastructure and services¹. Albeit the NSW government has a regulatory framework in place to safeguard the legitimacy of each new economic development in an area, including the prevention of unacceptable social impacts on communities, this is often not enough to prevent community opposition to a project. For instance, a bioenergy initiative may strive to source woody biomass from the region and thus create new transport

movements. Additional transport links may cause traffic congestion and/or additional noise thus causing anxiety and opposition towards the project. This may make it difficult to get a project off the ground. The project initiators are not only risk reputational harm and the reduced opportunities that might bring, but they also risk being subject to oppositional activities and the financial consequences of those actions. However, if the initiative engages with the community proactively, community understanding of the project can help to prevent or remove community opposition. Furthermore, community participation in the project design can help to mitigate negative social impacts and to leverage positive social impacts for the community. Thus, a relationship of trust is built with the community upon which social licences to operate can be created that makes it easier to get a project off the ground (see Figure 1).

A social licence to operate is not a legal right of veto; rather, it usually refers to the degree of acceptance or approval from the local community and other stakeholders for an organisation or project. Social licences can exist at various levels and can vary over time². They tend to be higher not only when impacts are positive, but also when people feel they are involved and respected, and when concerns are acted upon.

Common community concerns related to bioenergy projects

A bioenergy project can have social impacts on a community, as already briefly mentioned. Through engagement techniques, these social impacts can be addressed and mitigated. For bioenergy projects particular concerns include³:

- Siting and traffic. Concerns include the proximity of the plant to residents, the increases in traffic movement of trucks, and associated increases in noise.
- Pollution and health. Concerns include pollution due to production and traffic movement, unpleasant smell, nuisance and noise from traffic.

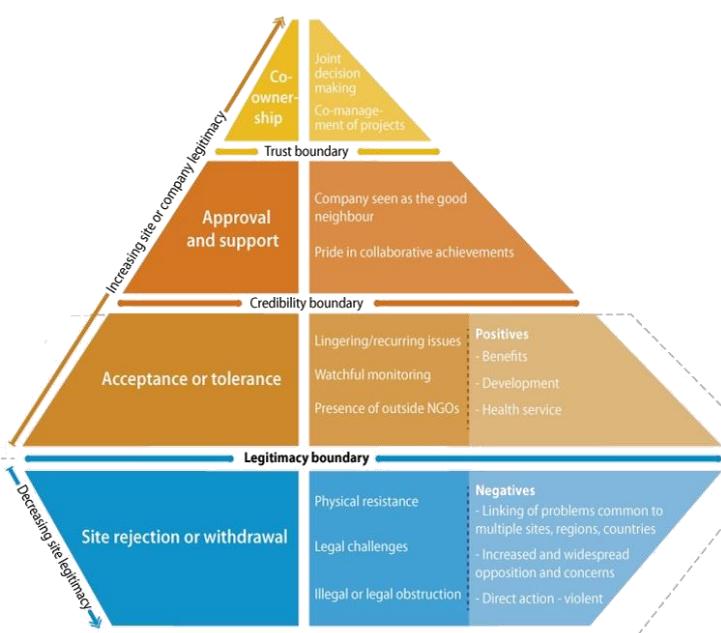


Figure 1: Community engagement can help to create a social licence to operate (after Boutillier 2009 and 2012)

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- Landscape and agriculture. For instance, the visual effects on the landscape, but also the food versus fuel debate, questioning whether it is sustainable to use agricultural land intended for food production instead of growing energy crops for fuel⁴.
- Environment and ecology. For instance, fear of negative impacts to rare species and concerns about the sustainability of feedstocks used for bioenergy production. Concerns include the cutting of trees for bioenergy production, threatening forests⁵.
- Economic. Concerns include the long term sustainability of jobs provided by a bioenergy plant and doubts about the continuity of subsidies or favourable market conditions.

Besides the direct impacts a bioenergy project may have on a community, impeding acceptance of the project, there may also be fewer site-specific issues at stake that hinder the acceptance of bioenergy plants. Experience with bioenergy projects in the EU reveals the following issues⁶:

- Lack of trust in the new industry: for instance, that developers will import in the future biomass for the facility instead of using locally available biomass.
- Lack of understanding of bioenergy facilities.
- Badly organised planning & communication processes with the public.

This may ultimately result in an image of bioenergy plants that rather reflects the perceived than real negative effects of the plant. To counter these concerns and issues listed above surrounding the planning of a bioenergy plant, community engagement is critical.

What are the key elements for community engagement?

Community engagement can focus on acceptance of operational activities and strategic acceptance. For operational community engagement, the project initiators engage with stakeholders to achieve social acceptance of their activities, i.e. a social licence to operate. It typically occurs in the field with those stakeholders likely to be directly impacted by bioenergy activities, i.e. neighbours and local community groups. In contrast, strategic community engagement engages those stakeholders who

may not be directly impacted by operational activities, but who have an interest in influencing these activities, such as NGOs and advocacy groups. For broader social acceptance of bioenergy projects targeted information strategies on a larger spatial scale are required, such as information sharing through social media, discussion forums or public campaigns dedicated to a specific bioenergy conversion technology.



Figure 2: Community Consultation Process ©UTS

There are several steps in community engagement. The steps increasingly involve the community in the project:

1. *Raising awareness*: sharing information about the project and its implications. Communicating with the community about the development of the project will help to build momentum, support, and credibility for a project. An informed community is an engaged community.
2. *Community consultation*: listening to what the community thinks about the project. Feedback from community members will help to inform the direction of future activities and decisions.
3. *Community participation*: collaborating in decision-making about the project with the community to seek mutual benefits.

Table 1 lists engagement techniques for each step.

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BIOMASS FOR BIOENERGY

Community Engagement Factsheet

| Level of participation | Engagement technique | Purpose in social impact assessment |
|--|--|--|
| 1. Raising Awareness Sharing information | Impromptu discussions and informal conversations | <ul style="list-style-type: none"> identifying affected and interested people, groups, organisations and communities helping people to understand the proposal and the social impact assessment addressing questions, concerns and complaints demonstrating early engagement |
| | Public displays, briefings, information sessions and public meetings | |
| | Open days and site visits | |
| | Contact points (for example, hotlines, websites, shopfronts) | |
| | Websites, direct mail/email/SMS, fact sheets, newsletters and webinars | |
| 2. Community Consultation Consulting to collect information and insights | Surveys and interviews | <ul style="list-style-type: none"> identifying and predicting social impacts collecting data, evidence and insights demonstrating early engagement confirming data, assumptions and findings involving marginalised groups |
| | Community Consultative Committee, or community liaison and advisory groups | |
| | Online forums | |
| | Social media | |
| 3. Community Participation Collaborating in decision-making | Workshops and focus groups | <ul style="list-style-type: none"> collaborating in the design of project elements identifying and predicting social impacts collaborating in the development of monitoring, mitigation and management measures and actions involving marginalised groups |
| | Deliberative forums/workshops | |
| | Citizen panels | |

Table 1: Community engagement techniques (NSW DPE Social impact assessment guideline 2017)

Why is community engagement relevant for renewable energy generation in NSW?

Community acceptance for bioenergy projects is not only crucial for the success of each particular project, but also for the successful spreading and upscaling of bioenergy and other renewable energy projects in general. The support of the community to a project gives other communities confidence if a bioenergy project is planned in their vicinity. Moreover, by involving communities in bioenergy projects, bioenergy becomes embedded in society also from the bottom up.

There is a range of co-benefits that can be realised with community acceptance of bioenergy, including:

- Enable a project to go ahead.
- Opportunities for local investors and local suppliers to participate in the project.
- Sense of co-ownership with the community.
- Siting of the project in accordance with community needs.
- Contribute with the bioenergy project to the creation of local jobs for the development and operation of the plants, improved ecosystem conditions and the reduction of biomass wastage.

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What research is NSW DPI doing on community engagement?

NSW DPI Forest Science is partnering with the Institute of Sustainable Futures of the University of Technology Sydney to investigate what the social impacts and benefits of grid-scale bioenergy projects are for communities and how this may influence the ability of a project initiative to establish a social licence to operate. While some case study research has been done on community perceptions of bioenergy in general terms⁷, there is little knowledge about the social impacts and benefits of wood-based bioenergy projects that are sourced with local biomass residues and woody biomass crops. Particular focus is on projects that use local woody biomass for electricity generation on a regional level. These plants increase the renewable energy supply in NSW and have the capability to contribute to a communities' energy independence from the national energy network.

How can you be involved?

NSW DPI Forest Science is also investigating how to explain bioenergy concepts to the general public. The goal is to develop visual communication materials that explain complex scientific evidence in a simple way with the aim to remove underlying anxieties against bioenergy. To this end, the public is invited to provide feedback on visual communication materials, such as a set of infographics. For stakeholders, factsheets are developed, including about hybrid solar-biomass plants, woody biomass crops and pelletising.

This research is part of NSW DPI's Climate Change Research Strategy (<https://www.dpi.nsw.gov.au/climate-and-emergencies/climate-change-research-strategy>).

Potential impacts of the research

Improved knowledge on the social impact and benefits of wood-based bioenergy may have the following impacts:

- Providing stakeholders in NSW that consider developing a wood-based bioenergy plant with knowledge about community understanding and acceptance of their project.
- Provide stakeholders with visual communication materials and practical guidelines for reaching a

social licence to operate for their project.

Improved knowledge about visual communication materials which successfully explain bioenergy concept may have the following impacts:

- Improve the general public opinion about bioenergy concepts.

For further information, please contact

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References

¹ See for instance the NSW DPE Social impact assessment guideline 2017 (online available).

² Dare et al. 2014: Community engagement and social licence to operate.

³ Upreti 2004: Conflict over biomass energy development in the United Kingdom.

⁴ Although for NSW farmers, growing energy crops on less productive, marginal areas of their farms provide an opportunity to diversify their portfolio, improve land conditions, and compensate income loss from droughts. See also our factsheet on woody biomass crops.

⁵ However, regulations grant forest managers to supply only residues for bioenergy generation, while it is neither economically feasible to cut trees for bioenergy.

⁶ From: Rohracher et al. 2004: Improving the public perception of bioenergy in the EU.

⁷ See for instance Parsons 2016: Social licence for bioenergy: prospects in the NSW Northern Rivers. A Northern Rivers BioHubs project led by Sustain Energy.

