

Risk based approach to ensure sustainable biomass

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DONG Energy CHP plants to deliver green and reliable energy

Power Plants to be able to use more biomass

DONG Energy's active plants

2014

-  Fossil fuel (coal, gas, oil)
-  Waste
-  Multi-fuel (biomass, gas/coal)
-  Planned mothballing
-  Planned conversion to multi-fuel facility

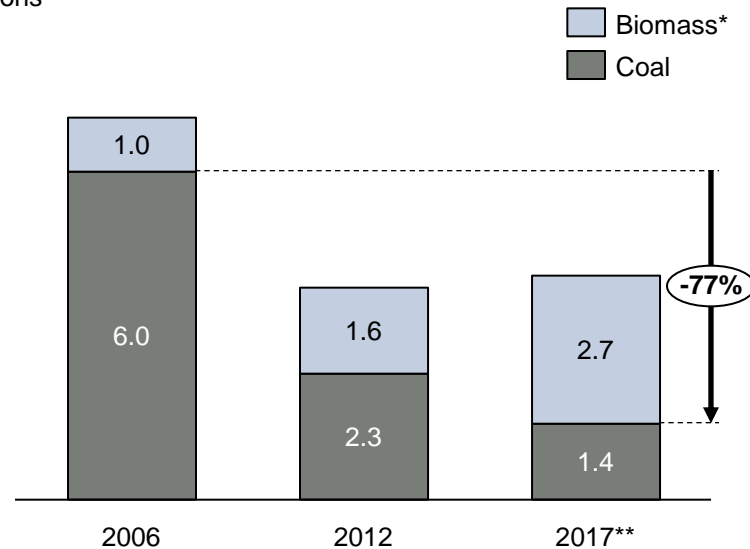


- Conversion of plants in Copenhagen, Aarhus and Skaerbaek to enable wood pellet or wood chip firing

Significant reduction in use of fossil fuels

Development of DONG Energy consumption of coal and biomass

Mill. tons



- DONG Energy use of biomass ensures a significant reduction in the use of fossil fuels
- Expected reduction of coal use by almost 80%

* Estimated use of straw, wood chips and wood pellets

** Depending on final investment decisions and market price development

Good and bad biomass

Sustainable forest management



Non-sustainable forest management



Risk based approach is already part of our due diligence

- FSC Mix
 - PEFC 70%
 - EUTR
 - FSC CW
 - PEFC CS
 - SBP
- Risk based approach

Should we not just go for FSC certified pellets?

- Lack of uptake in key wood baskets
- Why? – key reason is lack of small forest owner uptake due to cost and administrative burden
- SBP addresses this issue using a more modern approach to certification which is "risk based approach"
- Why is Risk Based Approach more "modern"?
 - When FSC was invented we did not have:
 - Real time low cost satellite imaging
 - Drones
 - Almost global mobile/ internet coverage
 - Camera smartphones
 - Social media
 - Low cost satellite imaging
 - etc.

Sustainable Biomass Partnership (SBP)

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- Group of energy utilities using biomass for energy production
- SBP members represent 70% of the total market for industry grade wood pellets. SBP will therefore ensure sustainability on the European market
- Members of SBP:



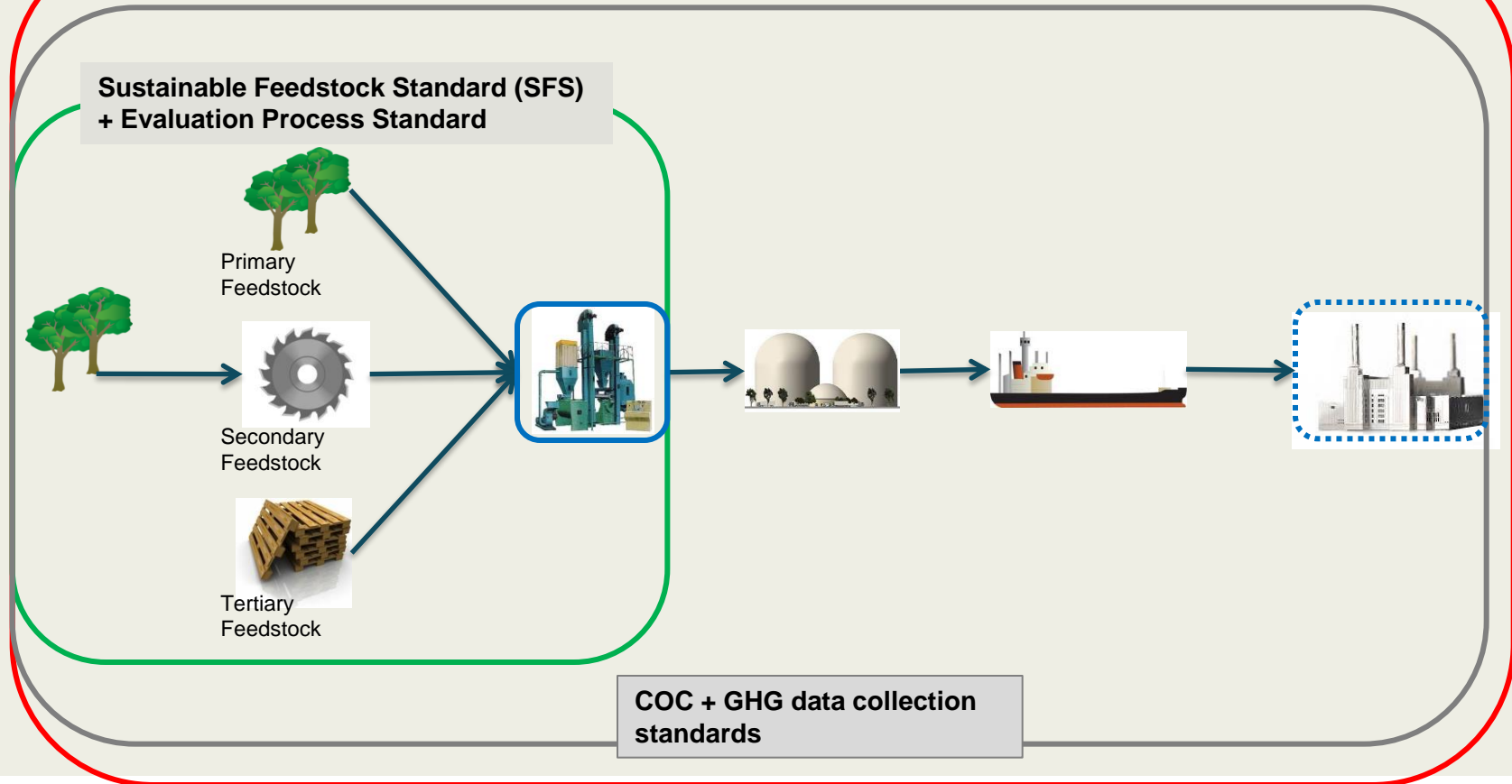
Control of suppliers

Certification ensures:

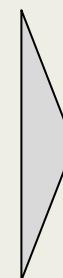
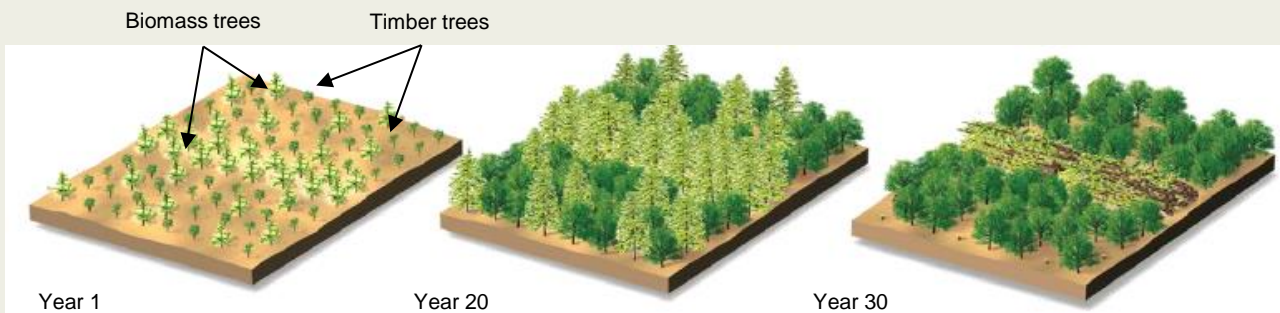
- Controlling and documenting that suppliers complies with regulatory sustainability criteria
- Independent 3rd party auditor certifies suppliers through:
 - Annual surveillance audits
 - Re-certification every 5 years
- Documentation of CO₂ emissions and traceability throughout the value chain
- Launched March 2015

Overview of SBP's Biomass Assurance Framework – Certificate level

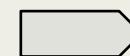
Biomass Assurance Framework: I. assurance of feedstock sustainability; II. supply-chain traceability and III. accurate GHG data / savings



Re-thinking how you manage production forest



Sustainable yield of wood for energy can double



Additional Benefit
Better quality timber
Higher yield
Better economy

Source: Dansk Skovforening

DONG Energy Sustainable Biomass Sourcing



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