Solid biofuel price escalation

For contracts with a term longer than one year the seller may wish to propose a price escalation clause in the contract. There are many things that may affect future prices and sellers and buyers may agree an escalation clause specific to their locality and the sources of biomass fuel being offered. The base price for the biomass supplied would be adjusted annually on the anniversary of the contract according to any movement in the indices set out in the clause. However, offering a simple percentage increase, or not including any escalation clause, can be attractive for some buyers as their fuel is then fixed for the duration of the contract.

From the fuel supplier's perspective the cost base and log sourcing arrangements for each supplier will be quite different, hence adoption of any particular type of inflator will depend on the individual business model of the supplier.

From a buyer's perspective, when they are adjudicating tender offerings they would like sellers to use common industry wide escalation formula as this makes comparison easier. Where potential suppliers each have their own unique escalation formula this makes comparison of prices more difficult for the potential buyer. In many industries there are commonly agreed escalation formula which all sellers use when making offers. This makes adjudication of offerings much easier.

The cost of source biomass which is to be made into fuel and sold can move quite independently of the log, export chip or pulp market in a region. For small volumes and for buyers without analytical staff the price over more than one year can be simply linked to the Consumer Price Index (CPI). However, CPI and other simple indices are too blunt an instrument when the biomass is linked to the export chip or pulp market and more relevant indices are recommended. For longer term contracts it is important that the cost of biomass derived fuels relates as close to the cost of the main specific inputs as is reasonably practicable.

A price escalation formula suitable when dealing with residues that may be competing with the pulp log market is set out below. This type of formula ensures transparency with pricing and reduces the chances of unjustified price increases. However, there are some components of a wood energy supply chain that do not get captured in this formula. For example, price increase relating to the additional distance from forest operations. In this situation, the wood fuel supplier may wish to add a component which is related to movements in the cost of fuel.

For the purposes of the Purchase Price Adjustment the applicable indices for biomass, production and labour can be defined as follows:

$$\text{APP (\$/GJ)} = \text{PP} \times [\text{LPI}_W \times \text{LPI}_L/\text{LPI}_B + \text{PPI}_W \times \text{PPI}_L/\text{PPI}_B + \text{LCI}_W \times \text{LCI}_L/\text{LCI}_B]$$

Where:

APP = Adjusted Purchase Price to be applied for the time period specified

PP = The original Purchase Price to be adjusted

- **LPI** means the Agri-Hq[1] S1/S2 Unpruned Log Price Index as published by NZX Limited (or any successor organisation) on a monthly basis. (The recommended index is related to pulp log price but other specific regional indices applicable to the Delivery Point may be used) The supplier should specify the regional index being used (Northern North Island, Southern North Island, Northern South Island, Southern South Island);

- **PPI** means the Producers' Price Index (Inputs – All Industries SN9) as published by Statistics New Zealand (or any successor organisation) on a quarterly basis;

- **LCI** means the Labour Cost Index (LCIQ.SH31K9) as published by Statistics New Zealand (or any successor organisation) on a quarterly basis.

LPI_W, PPI_W or LCI_W = LPI, PPI or LCI Weightings (The weightings between indices may be specific to the loacity and source of biomass. Recommended default weightings are (LPI_w - 55%; PPI_w - 30%; LCI_w - 15%)

LPI_L, PPI_L or LCI_L = Latest published values for LPI, PPI or LCI

LPI_B, PPI_B or LCI_B = LPI, PPI or LCI values used for the previous Purchase Price Adjustment or, for the first adjustment on the Commencement Date, the Base Index values in the Key Terms

Escalation of fuel costs for fuel delivery could be added as a fourth component.

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[1] https://agrihq.co.nz/forestry