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Dependable • Sustainable • Cost Effective

NZ's "Projects Mechanism"

And It's Effect on the
Uptake of Bioenergy

22nd March 2004

Agenda

- Background to the Mechanism
- Economic analysis
- Apportionment of Risk
- Pro's and Con's
- Concluding Comments

Background to the Scheme

- 4 million tonnes made available...so “contestable”
- Exploratory Round – held Oct '03.
- For non-BAU projects...Kyoto compliant
- Projects ranked by time and risk
- Electricity projects given favour

Credits only given out in CP1....after production

Recent Events in New Zealand



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“Renewable energies gain momentum...fossil fuels suffer”

“Gas supply clinging on by a thread”

“More Gas required upstream”

“...where’s the coal truck gone ?”



Saddle Rd bridge across Pohangina river with pipeline on right

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Results to Date

- Scheme was over-subscribed (15 of 45 were granted)
- Some Agreements now signed
- Wind farms, micro-hydro, bioenergy, efficiency
- Living Energy applied for 5 projects, got 2

Living Energy's role is facilitator and biofuel supplier

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A biofuel stockpile :



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Some food for thought...

CHH
closed
bioenergy
company

- Backlog of projects...caused by policy ?
- Given the Kyoto objectives, why the cap ?
- Risk is with the developer, so why rank risk ?
- If Kyoto is abandoned, the Agreements are too
- No certainty around value of carbon credits

Where does the risk lie ?



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Impact on Project Economics

- For wind farms worth ~ 2-4% of the capital cost *
- Probably similar for Hydro
- But 10-15% of capital for bioenergy projects *
- Assumptions are required around value
- Heavy negotiations now...or heavy discount %

* Assumes discount rate of 7-8%,
and is before discounting for
Kyoto risk...

...IF the \$'s are received

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Impact on Bioenergy Projects

...think like a buyer

- \$2m capital. ~50,000 CC's. Say \$500,000 ?
- Discount to NPV ~ \$250,000 (so 12.5% of capital)
- Then discount for risk : so only 6% down to ?%
- Unlike Hydro or Wind, still need to buy fuel, so...
- May cover 10-25% of the cost of fuel for 1 year
- Or 1-2% of fuel cost for 20 years

*“Near-
viable”*

Now for the Pro's
and Con's

*Then Possible
Improvements*

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The Projects Mechanism : PRO's

- It's happening
- Credits are backed by the Government
- Could be worth 5% of the capital cost
- Or 2% of the fuel costs for bioenergy

The Projects Mechanism : CON's

- Why only 4 million tonnes ?
- NEECS : “Progressive transition to renewables”

The Projects Mechanism : CON's

- Only for CP1
- It's not cash
- Suited to wind farms & hydro projects
- NZ is isolated from the main CC market
- Confused by electricity shortage

But the biggest issue is...

Con's Cont

- Risk Apportionment
 - Risk of Kyoto coming in to force
 - Risk of value of credits
 - Risk of project delivery
- No risk seems to lie with the Government

All the risk of the Kyoto policy has been shifted to industry

Possible Refinements

(if no clean sheet)

- Remove bias to electricity
- Wrap services around the scheme
 - Facilitate trading
 - Offer cash alternative
 - Negotiate with Britain's NOFO or ERUPT

To give future rounds a chance of success need to address Risk

Refine Risk Apportionment

Project risk should lie with the developer, most of the rest should be the Governments

- Cash not credits “conservative estimate of \$10 per tonne”...Minister for CC
- If Kyoto falls over....some compensation
- 50% cash now, 50% on delivery

How ?

How about...



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How about...



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How about...



Surplus is known...do deals with Europe

Post 1990 reductions under Voluntary Agreements

From future carbon taxes... “over \$1 billion dollars a year”

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Comments/ideas from the world...



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