Role of carbon & regulation challenges for private sector company’s participation in domestic waste industry

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Predictable disaster; Banter Gebang is full
Cities are running out of spaces to dump

Bekasi TPA Sumur Batu

Banter Gebang TPA for Jakarta’s rubbish
Countless open burning; Significant cancer risks?
130 workers in Pulogadung and Cibinong

Niigata diesel engine agent

DCE UK dust collector agent

Kawasaki Boilers and Absorption Chillers
EPC contract for Biomass Power Plant 4MWe. UNFCCC no.1635 for Particle Board factory Java, 2009
LFG: Clean & competitive energy resource

High calorie hydrocarbon;

Methane Potent GHG

Natural microbial decomposition of leached out nutrient.

High methane gas content 50%
Transforming environmental liability into cashflow

Bekasi  65,000ton ER/ year
Open Dumps yields no gas
Impacts of CDM

Before Gikoko CDM  After construction
Thermal engineering to Manufacturing and to BOT concession operation

- 2016  CDM MoU, MoA
- 2017  ERPA with Pontianak
- 2012  End of ERPA, Monitoring Report
- 2013  Start of FIT, CER issues
- 2014  FIT revision
- 2015  FIT revision
- 2016  Presidential Decree no 18, 7 cities
- 2017  Legal challenge to Presidential decree
- 2018  FIT rescinded in 2017 reinstated
FIT for LFG, year 2008~2018

USD (Cent/kWh)

US$ 14.77

US$6 cents
FIT for Incineration

USD (Cent/kWh)

2008 2012 2013 2015 2017 2018

US$18.44 cents

US$14 cents

Year

2008 2012 2013 2015 2017 2018

FIT (Funds for Incineration)
Challenges in CDM 1

1. Legal due diligence;
   Overlap in national and regional regulation
   ➢ Delay in advance payment disbursement

2. Technical oversight by designer
   Difference in climatic condition
   ➢ 2 years lost opportunity; delay in gas production and collection, damaging output reduction
**CDM challenges 2**

3. Host government lack of resources
   Broken perimeter access roads, lack of fuel, repair, operator of heavy equipment
   ➢ Poor cell profiling, reduced gas output

4. Lack of trust by UNFCC secretariat
   Prolonged audit process
   ➢ Cash pay out delayed, cashflow strain
1. Mis-match in investment size
Technical, Legal, Environmental and Social safeguards
Total development costs US$400,000

For lenders and investors, projects need to be US$15~US$25 million
>but project size only US$ 3~7 million for 1~3MWe
Viable projects with carbon incentives

- 3~8MWe RDF grate boiler electricity generation
- POME bio compressed gas or Compressed Biogas
- Used cooking oil refined biodiesel fossil fuel substitute
Biogas CNG / Compressed Biogas from CPO mill POME fermented gas
Biogas CNG / Compressed Biogas from Landfill Gas
New Domestic carbon incentive

- Encourage investment in GHG reduction and renewable energy projects small scale 10MWe equivalent

- Tax fossil fuel polluters

- Administered by Designated National Authority

- Specialists from former UNFCCC DOE auditors
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