



Environmental Investment

Potential for JI-Projects in Russia - The Biomass Sector -

Joachim Schnurr

GFA ENVEST GmbH, Hamburg

A Member of the GFA Consulting Group



Overall Potential for Renewable Energy in Russia

Estimated demand for investments in the electricity sector 2003 – 2030 : **380 Billion US\$** (IEA 2003)

	Technical Potential	Economic Potential
Small Hydropower (<30MW)	125	65
Geothermal Energy	20	n.a.
Biomass Energy	53	35
Wind Energy	80,000	6,218
Solar Energy	2,300	13
TOTAL	82,498	6,331

Source, IEA, 2003

in mtce/year

Definition of Biomass

- **Solid Biomass :**

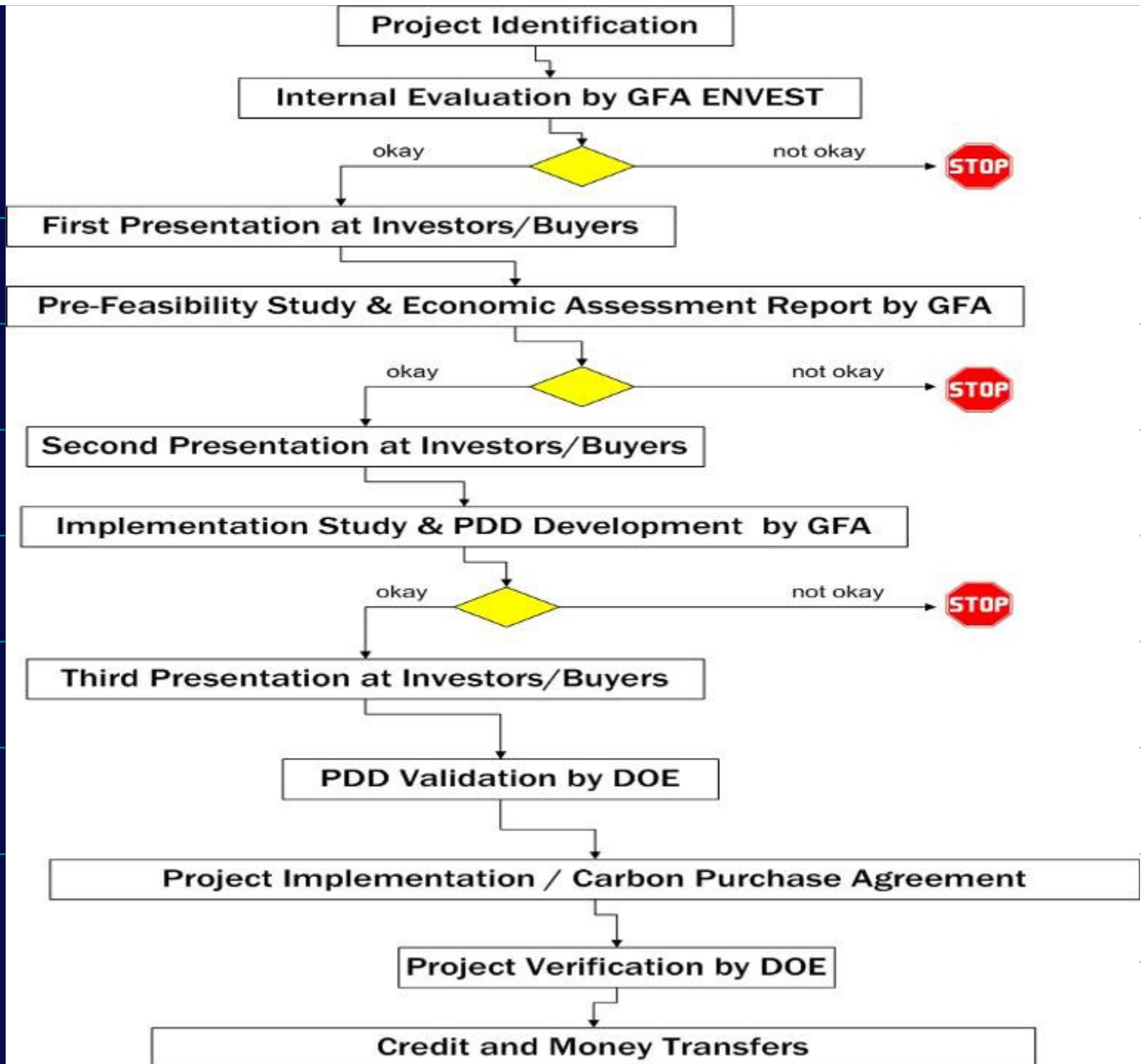
Solid timber / Wood residues from forest management and from industry / „Old“ wood / Wood from energy plantations / Agricultural residues / Agricultural energy crops / Sewage sludge / Organic waste

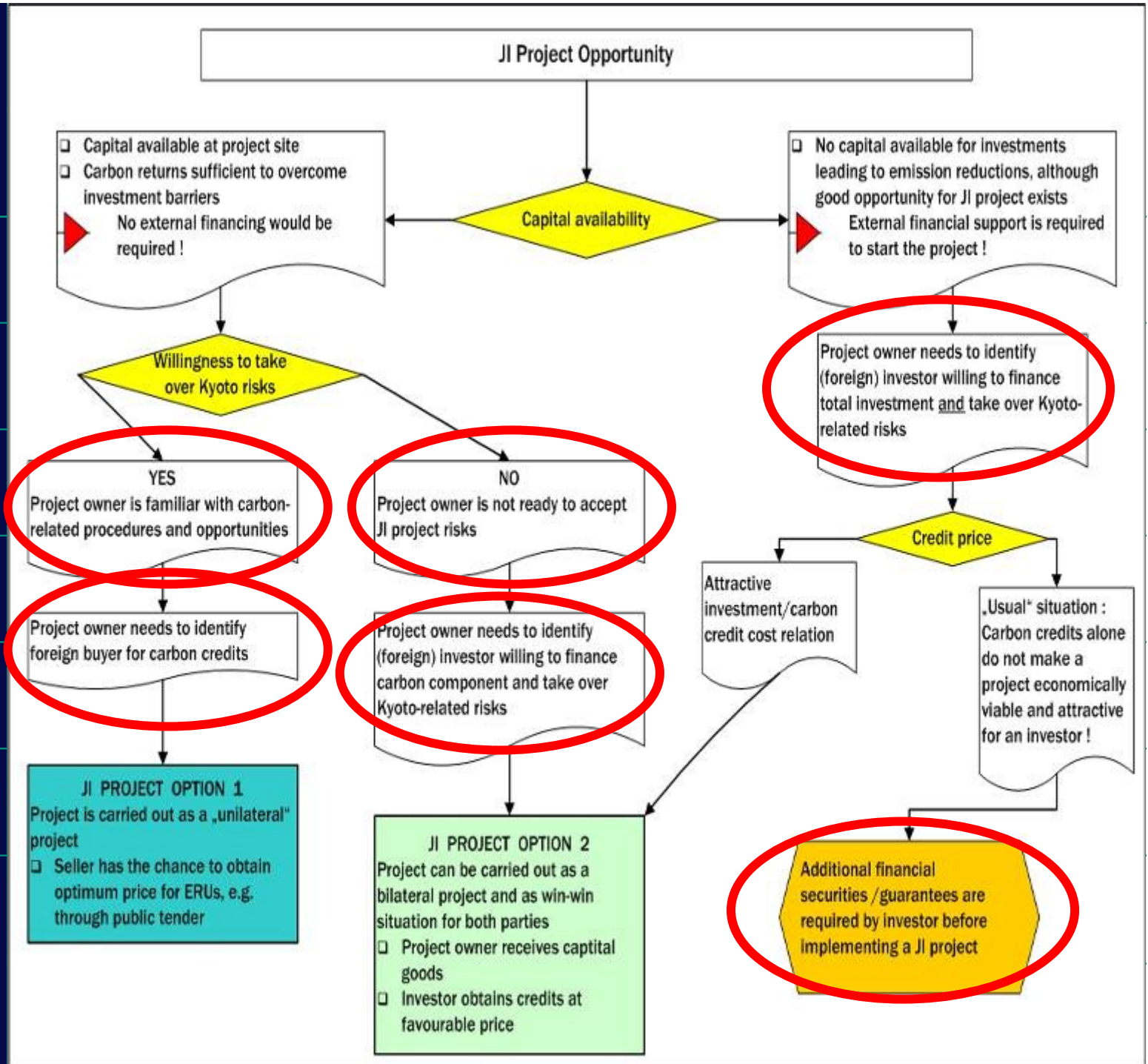
- **Gaseous Biomass :**

Landfill gas / Sewage gas / Biogas

- **Liquid Biomass :**

Plant oil / Biodiesel / Bioethanol







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JI Biomass Project at Onega

- Modernization of old, inefficient, coal-fired municipal heating system
- Installation of 2 new biomass boilers (37 MW)
- Wood fuel : 100,000 tons of wood residues from local wood industry (JSC Onega Sawmills)
- up to 200,000 tons CO₂eq (ERUs) per year
- Guaranteed long-term heat supply for town



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JI Biomass Projects currently under Assessment by GFA ENVEST

- Large-scale fuel-switch using lignin residues from industrial alcohol production
- Production of biofuels for export on abandoned agricultural areas in Kaliningrad Oblast
- Biogas production for local use as well as for export



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Danke für Ihre Aufmerksamkeit !

**Joachim Schnurr
GFA ENVEST GmbH
Eulenkrogstr. 82
22359 Hamburg**

**+49 40 60306 800
joachim.schnurr@gfa-envest.com**