

Japan Renewable Energy Foundation

# Feed-in tariff scheme in Spain

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**MARCH 2012** 





### **CRITICAL ELEMENTS OF THE REGULATORY FRAMEWORK**

SUFFICIENT:

Remuneration must allow a suitable level of profitability measured in terms of the cost of capital (WACC).

#### **PREDICTABLE:**

It must guarantee the volume of income over the life of the installation

#### SUSTAINABLE:

Feed-in tariffs, tax incentives or other pay schemes must be soundly-based in the long term

#### **INTEGRATED**:

It must include guidance facilitating the integration of wind energy in the electrical system.

## REGULATORY FRAMEWORKS SHOULD COVER THE PRESENT COSTS OF PRODUCING WIND POWER

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## **KEY PARAMETERS TO DEFINE THE TARIFF INCENTIVE**



## THE WACC DETERMINES THE MINIMUM PROJECT IRR

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(1) Source: Goldman Sachs, Natixis, Bank of America, Exane BNP Paribas, Macquarie, Credit Suisse, BES, RBS, Fidentiis, JP Morgan, BPI, Beremberg Bank

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#### **CAPEX IS CRUCIAL IN THE DEFINITION OF A REGULATORY FRAMEWORK**

Competition between manufacturers is affecting the final price. Prices of raw materials (steel, iron and copper) have a great influence.

But the starting point is different in several countries.





## MAIN ELEMENTS OF THE SPANISH MODEL





### **REMUNERATION IN SPAIN AMONG THE LOWEST IN THE EU**



#### **EVOLUTION OF THE REMUNERATION IN SPAIN**





## CONCLUSIONS

- It is always important to define appropriate tariffs based on actual costs and realistic wind conditions to avoid pressure on the power consumers or tax payers
- Regulation should include up-dating mechanisms based on the technology learning curve
- It is also important to incorporate from the beginning guidance facilitating the integration of wind power in the grid and to reduce the cost of regulatory services and balancing power
- Cooperation between the regulatory body, TSO and Electricity Market operator is recommended to understand the constraints and advantages of the different options and to integrate wind energy at the lowest possible cost