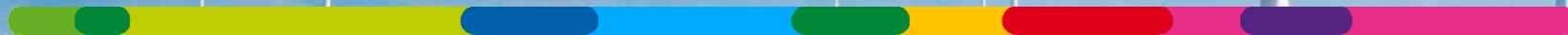

OECD WORKSHOP ON FINANCING GREEN INFRASTRUCTURE

Paris, 3 November 2016

Session : « The role of banks, utilities and equity sponsors in
financing green infrastructure »



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SUMMARY

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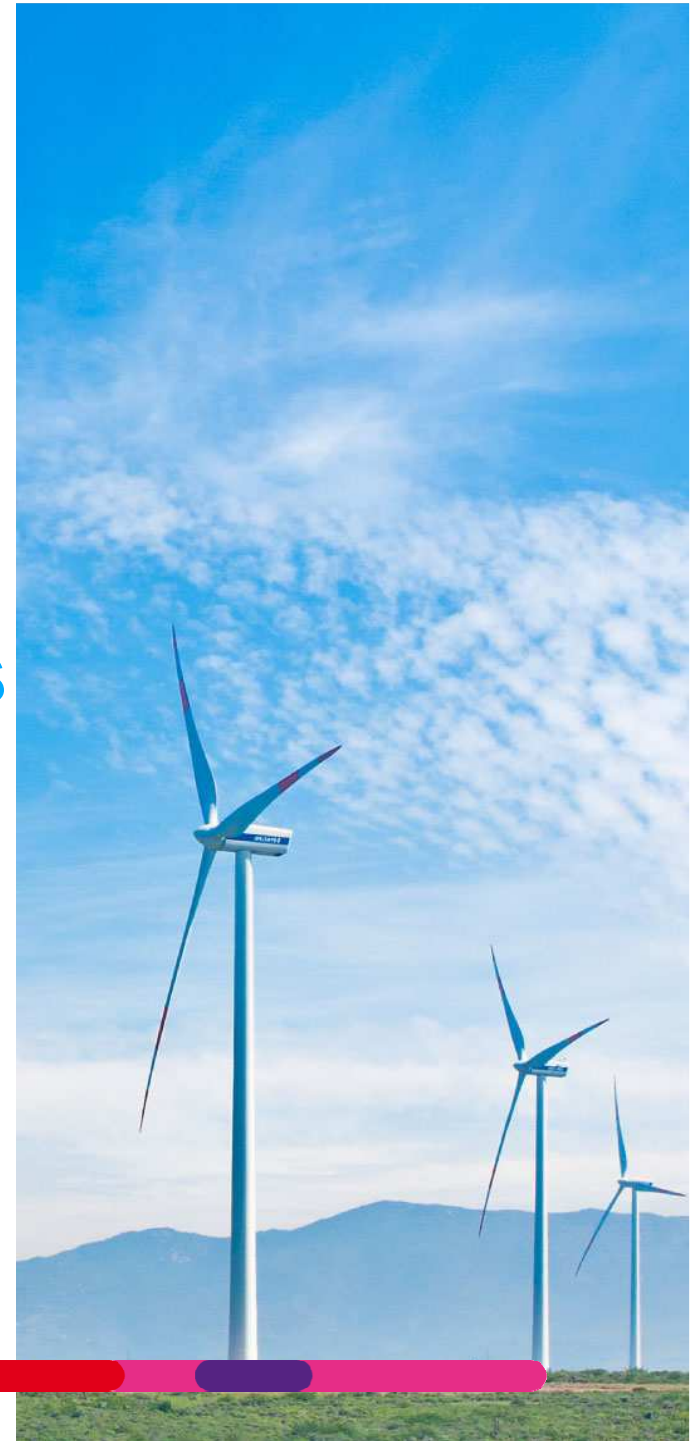
Conclusions

01

Some introductory comments
on well-known subjects

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ENGIE



Some introductory comments on well-known subjects

- Paris Agreement, NDCs, SDGs
- Infrastructure Gap
- It is not just energy, but energy is an important part
- Carbon pricing is one part of the story
- Reduction/elimination of fossil fuel subsidies is also another part of the story



02

The transformation of the energy system



The transformation of the energy system

- Climate change and the transformation of the energy system.
- An irreversible move towards a decarbonised, decentralised and digitalised energy world
- Adequate energy policies are needed
- A remarkable example of energy transformation : France
- The implications of the Paris Agreement mean an unprecedented and global transformation to take place in about three and a half decades.
- Going quickly creates a high risk of economic, technical and regulatory / political errors.



03

Issues on electricity generation



Issues on electricity generation (1/3)

- Utilities' traditional business model was based on centralized generation : high capex, LT investment; a patient capitalist.
- ENGIE has since the mid 90's implemented various partnership structures, notably in the Middle East and Latam
- More recently, Engie's Renewable Energy Platforms, with partners such as Equitix (UK), CDC, Natixis, Crédit Agricole + others (France), Mitsui and Fiera Axium (Canada), Marubeni (Portugal). ENGIE retain ownership control and manage the operational phase.
- In Latin America, our local companies have gone public, with pension funds as equity partners.

Issues on electricity generation (2/3)

- Projects will be smaller in size and decentralised.
- Financing those projects : take a similar approach to financing “traditional” projects by pooling them into a single financial structure.....
- Can we do better? The new generation of projects cannot support disproportionate development costs
- Some examples : IFC’s “Scaling Solar”, the Terrawatt Initiative, launched by Engie
- Need to work with governments (central and local), MDBs and MDAgencies to deliver such optimized financing



Issues on electricity generation (3/3)

- A new approach : IBS (Identify, Build and Sell / Securitise), a new business model?
- Approach could also work for mini-grids
- Analysts and rating agencies would need to understand the model.
- Need to gather all stakeholders, to establish and disseminate rules, market practices, ESG benchmarks, standard contracts.
- Moving from a “project approach” to a “process approach”. We believe this would be a decisive contribution to transformation of the energy system.



04

Issues on energy efficiency



Issues on energy efficiency

Energy Efficiency : buildings, transport, industry

- Buildings :

- improvements and greenfield

- green revolving funds, Brussels Green Loan

- net zero buildings : green construction finance, certification

- Transport : Electric vehicles

- Industries : smart minigrids

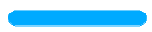
- Cities are major stakeholders in energy efficiency

- Grid edge transformation : need for alliances, new regulation, enabling infrastructure



05

Conclusions



Conclusions

- Energy system transformation presents risks and opportunities
- New business models will emerge to co-exist or replace existing ones
- A multi-stakeholder approach is needed : regulation, standards, certification, ESG, tracking, data management...
 - Customer-oriented, technology-driven transformation of the energy business
 - Climate has to be the main driver of energy policy
- Private finance : this transformation concerns you too



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Thank you for your attention!

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The ENGIE logo consists of a white semi-circular shape above the word "ENGIE" in a white, lowercase, sans-serif font.

