



## Digitalisation Webinar:

### Opportunities for Fintech to Scale up Finance for Clean Energy

11 June 2020

#### Webinar summary

Achieving the clean energy transition requires unprecedented changes in the energy system. The future clean energy system will be one that is integrated across sectors and energy carriers with a shift away from centralised to decentralised models. Digitalisation will play a growing role in the energy sector and offers great potential to facilitate the implementation of greater energy efficiency and renewable energy technologies as increased automation and better data analytics lead to reduced energy consumption and materials use, facilitate smart demand response, the integration of variable renewables and distributed energy resources.

Meeting the finance and investment requirements to achieve this clean energy transition will also require a transformation of financial markets. Digital technologies are also influencing financial markets and transforming how corporations and individuals are raising capital and investing. Blockchain and digital ledger technologies can shift centralised models of traditional finance institutions to one that, like the energy system becomes, more decentralised and interconnected.

Digitalisation of both the energy and finance sector can create new opportunities for innovative financing options to emerge. The webinar explored how digital technologies are starting to support the development of new financing vehicles such as digital green bonds and help project developers raise financing for clean energy projects. It also looked at the potential role of fintech to scale up the availability and reduce the cost of clean energy finance in emerging economies, with a case study presented from Indonesia.

#### Speaker presentations:

**Marianne Haar, Director of Green Digital Finance Alliance**, explained the capabilities that fintech could bring to energy efficiency finance and how it could overcome challenges such as small project size, high-perceived risks and diversity of projects, which can make standardisation difficult. Digital technologies through the delivery of real time verified data allows energy efficiency projects to be predictable and enables asset forecasting. Aggregation models would allow the packaging of small energy efficiency projects into larger more easily investible tranches, as well as the aggregation of smaller investors via robo advisors, automated portfolio managers and crowdfunding models. Fintech could also help to influence behaviour change through rewards and gamifying<sup>1</sup> of energy efficient behaviours and automated tracking features of energy efficiency behaviour among SMEs.

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<sup>1</sup>The application of typical elements of game playing (e.g. point scoring, competition with others, rules of play) to other areas of activity, typically as an online marketing technique to encourage engagement with a product or service.

**Jacob Ninan, co-founder of Kottackal Business Solutions** provided an overview of the technical architecture, based on the following three pillars: Digitization, Data and Intelligence, and Trust. Digital technologies used include blockchain, internet of things and smart infrastructure. The platform facilitates pre-development funding, green bond funding, project discovery and matchmaking and near-real time performance tracking. For fintech to realise its potential there is a need for project finance customisation, the development of simple and transparent processes and the use of blended finance instruments to help prepare bankable projects.

**Dwi Irianti Hadiningdyah, Director of Islamic Finance, Ministry of Finance, Republic of Indonesia** outlined the motivation and lessons learned from Indonesia's recent retail green sukuk issuance using a digital platform. Indonesia already has a vibrant e-commerce industry with an e-commerce penetration of more than 62% in 2019 and forecasted to reach over 77% by 2024. The retail sukuk platform used was developed internally, allowed for 24-hour access, mobile compatible, easy to use, and allocated on a first come first serve basis to insure fairness. The governments retail green sukuk issuance aimed to develop a more sustainable investor base and help raise awareness, particularly among millennials on the importance of addressing climate change and other environmental issues. The online subscription system attracted and allowed for investors from all 34 provinces to participate with Millennials accounting for 56% of first time investors.

The webinar also included a series of polling questions to gather participant input on the use of fintech for clean energy finance. Participants felt that the key drivers for fintech development in the clean energy sector was as a platform to match project developers and investors, and allow small investors direct access to clean energy projects. The main benefits highlighted of digitising green bonds included transparency, increased access, efficiency, trust, cost reduction and ease of doing business. Fintech options were deemed suitable for a wide range of renewable energy and energy efficiency projects.

#### Main takeaways from the webinar:

- Fintech for clean energy finance is at a nascent stage with only a glimmer of its potential seen so far. Country experience remains limited, the potential however for digitalisation to transform the way clean energy projects are financed is significant.
- Block chain and digital ledger technologies, internet of things and artificial intelligence provide visibility on data and analytics that can help drive down transaction costs by facilitating standardisation of smaller projects and making project due diligence easier and less costly. Fintech allows greater access for smaller projects to raise capital at lower costs. The provision of real time performance data makes it easier for investors to evaluate and price risks and also leads to more confidence in project returns.
- Governments have a key role to play in developing some of the early projects and also in providing the right policy environment and governance structures that can allow fintech to grow but at the same time provide investors with sufficient protection as well as information to make informed investment decisions.